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## Alestidae

### *Brycinus imberi* (Peters, 1852)

#### **Common names:**

Adjoua ôclair (Cote d'Ivoire), Bembe (Tanzania), Beme (Tanzania), Characin (Ghana), Dabé (Senegal), Dzogla (Ghana), Dzogla dzevui (Ghana), Elengeli (Congo Dem Rp), Gelengeli (Congo Dem Rp), Imberi (South Africa, Tanzania, Zambia), Imene (Zambia), Insaku (Zambia), Ituku (Congo Dem Rp), Mansali (Tanzania), Mberi (Malawi), Ngalala (Tanzania), Nkhalala (Malawi), Nsaku (Zambia), Nsakwila (Zambia), Sandowe (Tanzania), Silversides (Ghana), Spot-tail (Malawi, Tanzania), Spot-tail robber (Zambia), Spot-tailed robber (Tanzania), Tewe kpiti (Ghana), Tewe-kpiti (Ghana), Wakaka (Congo Dem Rp), Woueimatin (Cote d'Ivoire).

**Description:** Diagnosis: parietal fontanella absent in adults and porelinke in juveniles, disappearing with growth; snout short, comprised over three times in head length; dorsal-fin origin at same level as, or scarcely behind, pelvic-fin insertions; head narrow; adults medium-sized; sexual dimorphism affecting anal-fin shape in adult males; no band or spots on sides; caudal fin red, not black-edged; 4.5 scales between lateral line and dorsal fin; 21-31 lateral line scales; 11-16 anal fin branched rays; 8/8 premaxillary teeth; 16-20 gill rakers in lower part of first branchial arch (Ref. 2880, 81279).

Description: anal fin with 3 branched and 11-16 unbranched rays; jaws equal; premaxilla with two tooth rows, each comprising 8 teeth; in larger individuals, two teeth of the anterior row become dislodged, thus forming a second row (Ref. 2880, 81279).

**Maximum length:** 19.8 cm TL male/unsexed (Ref. 2880).

**Colour:** ground colour silvery, back darker (greenish or brownish), belly lighter; black humeral spot; black blotch on caudal peduncle, sometimes extending partially or totally unto caudal-fin rays; colour of fins variable with hydrographic basin: rayed fins yellowish or reddish and adipose fin red (Congo, Ghana, South Africa), paired fins yellow and adipose fin black (Zambezi, Lake Rukwa), rayed fins and adipose fin vermillion red (Côte d'Ivoire and Togo except in Nipoué where species has more brownish fins)(Ref. 2880, 81279).

**Distribution:** Mono River in Togo to Nipoué River in Liberia (Ref. 2880, 81279). Widely distributed in the Congo River basin (Ref. 42019). Also in the middle Zambezi (Ref. 95585), lower Zambezi, Wami River in Tanzania to Pongolo River in South Africa; Lakes Malawi, Rukwa, Rufiji and Ruvuma; on the western coast in the Quanza and the Nyanga, Tanganyika tributaries, Lake Kariba, Cunene River (Ref. 5331).

#### **Notes:**

### *Brycinus lateralis* (Boulenger, 1900)

**Common names:** Mbala (Namibia), Mungumba (Angola), Nchenga (Zambia), Streep-rower (Namibia, South Africa), Stripe-tailed robber (Zambia), Striped robber (Namibia, South Africa, Zimbabwe, Zambia), Stripped robber (FAO), Tala (Zambia), Tsimbu (Malawi).

**Description:** Diagnosis: A slimmer fish than *Brycinus imberi* without a spot behind the head, but with a pronounced black lateral band (normally only visible on dead material) which ends in a caudal dash extending right through the caudal fin (Ref. 13337).

Description: Body fusiform, leading rays of anal fin extended in males, forming rounded edge, edge straight in immatures and females; head about equal to body depth, mouth terminal, jaws each with 2 rows of sharp tricuspid teeth (Ref. 52193). Dorsal fin with 2 unbranched and 8-9 branched rays; anal fin with 3 unbranched and 15-17 branched rays (Ref. 11970, 52193). Scales cycloid, radially striate, 10-14 around caudal peduncle; lateral line scales vary amongst allopatric populations, from 26 to 37 (Ref. 52193).

**Maximum length:** 14.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Silvery, prominent black caudal dash surrounded by yellow, adipose fin yellow (Ref. 52193).

**Distribution:** Kasai, upper Sankuru, upper Lualaba (Ref. 42019) and Luapula systems (Ref. 45616, 109499) (middle and upper Congo River basin) in Democratic Republic of the Congo and Zambia. Zambezi system including upper Zambezi, Kafue, Lake Kariba, lower Zambezi, Okavango, Cunene, Buzi (Ref. 7248, 94654) and Caprivi strip (Ref. 37065). Also from coastal north-east Natal to the Lake St. Lucia catchment (Ref. 13332).

**Notes:**

### *Brycinus macrolepidotus* Valenciennes, 1850

**Common names:** Adjamdjer (Chad), Adjamdjor (Chad), Agamikak (Sudan), Alerio (Sudan), Anto (Nigeria), Barga (Nigeria), Characin (Ghana), Cin (Sudan), Dabé (Senegal), Dzaflafa (Ghana), Dzaplapa (Ghana), Elei (Nigeria), Farabanin (Burkina Faso), Gamle (Chad), Gbagara (Sudan), Kadjianre (Chad), Kakara (Nigeria), Katô (Cote d'Ivoire), Kawara safsaf (Sudan), Kawwara safsaf (Sudan), Large scaled robber (Kenya), Leggani (Sudan), Lilongo (Congo Dem Rp), Melek (Sudan), N'gba (Cote d'Ivoire), Silversides (Ghana), Tatare (Burkina Faso), Walo (Congo Dem Rp), Zoglou (Cote d'Ivoire).

**Description:** Diagnosis: fronto-parietal fontanel absent in adults, sometimes pore-like in juveniles; snout long, comprised 3x in head length; dorsal fin origin distinctly behind pelvic fin insertion; adults large-sized; no sexual dimorphism affecting anal fin shape; 21-31 lateral line scales; 4.5 scales between lateral line and dorsal fin; 10-16 anal fin branched rays; 14-22 gill rakers on lower limb of first gill arch; 8-14 teeth in outer premaxillary row (Ref. 2880, 80290, 81279). Head length/snout length 2.6-2.9; 10-12 predorsal scales (Ref. 80290). Body depth more than 3x SL in adults (Ref. 2880, 81279).

Description: anal fin with 3 branched and 10-16 unbranched rays; 8-14 premaxillary teeth, two of which shift progressively backwards with growth; supraorbital bone well-developed; upper jaw projecting beyond lower jaw in adults (Ref. 2880, 80290, 81279).

**Maximum length:** 53.0 cm SL male/unsexed (Ref. 2880).

**Colour:** humeral spot; black precaudal blotch extending partly unto median caudal-fin rays; greenish back, white belly; juveniles with white spot on upper part of caudal peduncle (Ref. 2880, 80290, 81279). Sides sometimes with an orange (Ref. 2880, 81279) or broad dark (Ref. 80290) longitudinal band from opercle to caudal fin in adults only. This color pattern is not correlated with sexual activity (Ref. 2880, 80290, 81279). In most fish fin color varies from red-orange or pink (Ref. 2880, 80290, 81279) to grey (Ref. 80290). In some populations fin margins are trimmed with dark pigment (Ref. 80920). Only live specimens from Cavally River (Côte d'Ivoire) have vermillion red fins (Ref. 2880, 81279).

**Distribution:** present throughout intertropical Africa (Ref. 2880, 80290, 81279). Absence from the Gambia basin is noteworthy (Ref. 81279). Present in the Nile system (Ref. 28714, 58460) up to Lake Albert (Ref. 4903) and in Lake Turkana system (Ref. 28663). Widely distributed in the Congo River basin (Ref. 5331, 42019, 42510, 45434).

**Notes:**

*Hemigrammopetersius barnardi* (Herre, 1936)

**Common names:** Barnard se rower (South Africa), Barnard's robber (FAO, South Africa), Sootfin robber (South Africa), Tsimbu (Malawi).

**Description:** Description: Body compressed, fusiform; in males leading ray of anal fin expanded and recurved, in females fin normal and trailing edge straight (Ref. 52193). Teeth tricuspid, in a single row on both jaws, 12 on upper, 6-8 on lower jaw (Ref. 52193). Dorsal fin with 3 unbranched and 7-8 branched rays; anal fin with 2 unbranched and 16-18 branched rays (Ref. 52193). Lateral line incomplete, 7-9 tubuled scales, 28-32 scales in lateral series, 12-14 around caudal peduncle (Ref. 52193).

**Maximum length:** 7.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Translucent olive, with silvery head and abdomen and an iridescent green stripe along body; dorsal and caudal fins sooty, with yellow base; a black band above anterior base of anal fin passes across midrays of anal fin (Ref. 52193).

**Distribution:** Lower Zambezi, Pungwe and Buzi systems; also upper Shire and lakes Malawi, Chilwa and Chiuta (Ref. 52193). Also Rovuma and Rufiji (Ref. 4967).

**Notes:**

*Hydrocynus vittatus* Castelnau, 1861

**Common names:** Akao (Ghana), Avuwo kordzeasa (Ghana), Bongela (Congo Dem Rp), Bosenekele (Congo Dem Rp), Ebma tsagi (Nigeria), Hidi (Chad), Hidi Dare (Chad), Hiding (Chad), Hiring (Chad), Ijakere (Nigeria), Kabi (Nigeria), Kachinga (Tanzania), Kalb el bahr (Sudan), Kas (Sudan), Kasangi (Angola), Kasanji (Angola), Kass (Sudan), Kiri shelia (Nigeria), Koris (Kenya), Lokel (Kenya), Manda (Zambia), Mcheni (Malawi), Muka (Angola), Munda (Congo Dem Rp), Musonga (Angola), Ncheni (Mozambique), Ngania (Sudan), Ngweshi (Namibia), Nsanga (Zambia), Owulueze (Nigeria), Tiervis (Namibia, South Africa), Tiger fish (FAO, Ghana), Tigerfish (Kenya, Namibia, South Africa, Tanzania, Zambia), Wagassa (Uganda), Zawai (Nigeria).

**Description:** Diagnosis: 2 scale rows between lateral line and scaly process at pelvic-fin bases; eye < 70% of interorbital space (Ref. 2880, 81279). Dorsal-fin origin at about same level as pelvic-fin insertions; tips of adipose and dorsal fins black; forked edge of caudal fin black (Ref. 2880, 80290, 81279).

Description: gill rakers few (5-9/9-12), but rather long; rakers of first gill arch normally developed; body profile less elongate than *H. forskalii* (Ref. 2880, 80290, 81279). Dorsal fin with 2 unbranched and 8 branched rays; anal fin with 3 unbranched and 12 branched rays; 14 scales around caudal peduncle (Ref. 11970).

**Maximum length:** 105 cm FL male/unsexed (Ref. 40637); 74.0 cm FL (female).

**Colour:** Coloration: ground color similar to that of *H. forskalii*, but in *H. vittatus* tips of dorsal and adipose fin black and fork of caudal fin black-edged; dark coloration may also extend unto median caudal rays, forming crescent-shaped blotch (Ref. 80290, 81279).

**Distribution:** West-Africa: Niger, Bénoué, Ouémé, Senegal (Ref. 2880, 5331, 7248, 81279), Ouémé (unconfirmed, Ref. 81279), Chad (Ref. 2880, 5331, 81279). Also found in the Volta (Ref. 5331, 81279) and Mono rivers (Ref. 81279). Lower Guinea: Cross and Sanaga basins (Ref. 80290). Widespread throughout the Congo River basin (Ref. 4910, 41585, 41594, 42510, 45616, 52070, 89725, 106290). Also reported from Nile, Omo, Zambezi, Limpopo, Rovuma, Shire, Rufiji, Ruaha, Lake Tanganyika, Lake Rukwa (Ref. 2880, 80290), Lake Albert (Ref. 4903) and Lake Kariba (Ref. 27602), Malagarazi, Okavango and lower reaches of coastal systems south to the Pongolo (Ref. 7248).

**Notes:**

### *Micralestes acutidens* (Peters, 1852)

**Common names:** Gelengela (Congo Dem Rp), Ilalanga (Congo Dem Rp), Kaar (Sierra Leone), Keria (Sierra Leone), Kerie (Sierra Leone), Khovhenduhu (South Africa), Lilanga (Congo Dem Rp), Lilengela (Congo Dem Rp), Lubongo (Angola), Lutemba (Angola), Mbala (Namibia), Muka (Angola), Mwota (Angola), N'keria (Sierra Leone), Pedi (Sudan), Sese (Angola), Sharptooth tetra (AFS, FAO), Silver robber (Namibia, South Africa, Zimbabwe, Zambia), Silver rower (Namibia), Silver-rower (South Africa), Tshawamba (Angola), Tsimbu (Malawi).

**Description:** Diagnosis: inner dentary teeth multicuspid; 14-17 anal fin branched rays; dorsal fin apical tip black; scales of flank without melanophores concentrated along basal margin, pigment diffuse or absent (Ref. 80290).

Description: body moderately slender; body depth 30-33% and head length 24-29% of SL (Ref. 80290). Body height 3-3.5x and head length 3.6-4.2x in SL (Ref. 42032). Mouth terminal, upper lip prominent, depth of lower jaw about 1.5 that of upper jaw (Ref. 80290). Lower jaw projects (Ref. 4967). Premaxilla with 3 teeth in outer row each bearing 7-12 cusps; dentary with 4 teeth in outer row each bearing 9-12 cusps, median cusp prominent, a multicuspidate tooth at symphysis posterior to outer row dentary teeth; lateral line complete, 26-29 tubes, ultimate canal-bearing scale terminal; anal fin with 3 unbranched and 14-17 branched rays (Ref. 80290).

**Maximum length:** 9.0 cm SL male/unsexed (Ref. 4967).

**Colour:** black lateral band from posterior opercular margin to caudal fin base (Ref. 42032, 80290), underlain by broad band of silver pigment in life (Ref. 80290). Band width and pigmentation density increase caudad and greatest at vertical through anal fin origin; dorsal fin with dark mark at apical tip involving first 3-4 branched rays; adipose fin without pigment; caudal fin lobes often brilliant red in life (Ref. 80290). Fins greyish (Ref. 42032).

**Distribution:** Congo, Okavango, Zambezi (Ref. 7248, 120641), Kunene and east coast rivers south to the Pongolo (Ref. 7248), Cross and Sanaga Rivers (Ref. 80290) and Tanzania (Ref. 4967). Nilo-Sudan and West-African reports of *M. acutidens* (e.g. Ref. 367, 51193) are misidentifications of *M. elongatus* (see DVD version of Ref. 81279; see also Ref. 2880).

**Notes:**

## Ambassidae

### *Ambassis ambassis* (Lacepède, 1802)

**Common names:** Akimbatsy (Madagascar), Ambache (Mayotte, Madagascar, Mauritius, Réunion), Ambache du large (Mayotte, Madagascar, Mauritius, Réunion), Ambasse (Mayotte, Madagascar, Mauritius, Réunion), Ambatsy (Madagascar), Commerson's glassy (Mauritius, Réunion), Kimbatsy (Madagascar), Langstekel-glasvis (South Africa), Longspine glassy (FAO, South Africa), Samboranda (Madagascar).

**Description:** Diagnosis: a single supraorbital spine; rostral spine absent; preopercle ridge and rear margin serrate; interopercle edge smooth except for few small serrae at angle; 2-3 rows of cheek scales; predorsal scales 13-18; lateral line continuous (normally); lower gill rakers 19-23; pectoral-fin rays 14-15 (Ref. 50956).

Description: Dorsal fin with 8 spines and 9-10 soft rays; anal fin with 3 spines and 9-11 soft rays; pectoral fin with 14-15 rays (Ref. 50956, 52193). Lateral line usually continuous, with 27-31 scales when so, very infrequently 1-2 scales without tubes interrupt lateral line below juncture of dorsal fins; vertical scale rows 29-32; horizontal scale rows 9-10; cheek scale rows 2-3; predorsal scales 13-18 (Ref. 50956). Gill rakers 7-10 + 19-23 (Ref. 50956). A single supraorbital spine; preorbital ridge smooth in early juveniles, becoming serrate by about 35-40 mm standard length; preorbital edge with 5-12 serrae; retrorse rostral spine absent; preopercle ridge with 7-22 serrae; lower edge of preopercle with 12-26 serrae, these extending dorsally along rear margin of preopercle, its entire height in specimens larger than 30 mm standard length; interopercle smooth except for 3-10 minute serrae at angle; teeth in single row on palatines; in three patches on vomer in larger specimens (Ref. 50956).

**Maximum length:** 15.0 cm TL male/unsexed (Ref. 52193).

**Colour:** Live colouration translucent greenish-brown dorsally, head and abdomen silvery; scales with minute melanophores; membrane between second and third dorsal and anal spines dusky, black at tip; black lineations along bases of unpaired fins; lobes of caudal fin dusky toward upper and lower margins (Ref. 50956)

**Distribution:** Subtropical eastern South Africa to Kenya, Madagascar, Réunion and Mauritius (Ref. 50956).

**Notes:**

### *Ambassis dussumieri* Cuvier, 1828

**Common names:** Ambache de Dussumier (Seychelles).

**Description:** Diagnosis: supraorbital spines 1-5, usually 3-4; rostral spine present; rear margin of preopercle smooth (at least dorsally); interopercle edge smooth; two rows of cheek scales; predorsal scales 13-16; lateral line discontinuous; lower gill rakers 22-25; pectoral-fin rays 14-16 (Ref. 50956).

Description: Dorsal fin with 7-8 spines and 8-10 soft rays; anal fin with 3 spines and 8-11 soft rays; pectoral fin with 14-16 rays (Ref. 50956, 52193). Lateral line with 12-14+10-16 scales, interrupted below base of soft dorsal rays by 1-3, usually 2, tubeless scales; vertical scale rows 27-28; horizontal scale rows 9-10; cheek scale rows 2; predorsal scales 13-16, 11 or 12 in some early juveniles (Ref. 50956). Gill rakers 8-10+22-25 (Ref. 50956). Supraorbital spines 1-4, more numerous and more

pronounced in larger specimens; preorbital ridge smooth or with 2-3 small serrae; preorbital edge with 4-6 serrae (2 in 17 mm juvenile); retrorse rostral spine present at all sizes; preopercle ridge with 3-13 serrae; lower edge of preopercle with 6-31 serrae, these extending dorsally along rear margin of preopercle to about one-third its height in larger specimens; interopercle smooth except for 1-2 tiny spines near posterior angle (Ref. 50956).

**Maximum length:** 10.0 cm TL male/unsexed (Ref. 4180).

**Colour:** Live colouration dusky grey and translucent dorsally and posteriorly, especially in young, silvery ventrally; membrane around second and between second and third dorsal-fin spines black; scales on dorsum edged in black; black lineations along base of dorsal and anal fins and posterior lateral line in larger fish (Ref. 50956).

**Distribution:** Indo-West Pacific from Algoa Bay in South Africa, north to the Red Sea, Seychelles, and eastward around India and Australasia to the Philippines and China (Ref. 50956).

**Notes:**

#### *Ambassis gymnocephalus* (Lacepède, 1802)

**Common names:** Ambache (Réunion), Ambache du large (Réunion), Ambasse (Réunion), Bald glassy (FAO, Kenya, South Africa), Bald glassy perchlet (old FAO name), Dodosi (Kenya), Kaalkop-glasvis (South Africa), Langstekel-glasvis (South Africa), Longspine glassy (South Africa), Marie Jeanne (Mauritius).

**Description:** Description: Depth 2.6-2.9 times in standard length; head 2.7-2.9 times in standard length; eye diameter 3.1-3.4 times in head length (Ref. 4318). Supraorbital spines 1-5, usually 3 or 4; lower edge and angle of preopercle serrate; dorsal 2/3 of vertical preopercle edge smooth; preopercle ridge completely serrate along lower limb; a large retrorse spine on preorbital just below anterior nostril; preorbital ridge smooth or serrate; interopercle smooth except for 1 or rarely 2 small spines (Ref. 4318). A row of minute teeth on vomer, palatines and tongue (Ref. 4218). Dorsal fin with 7-8 spines and 8-10 soft rays; anal fin with 3 spines and 8-10 soft rays; pectoral fin with 14-15 rays (Ref. 4318). Scales on lateral line 27-29, interrupted; predorsal scales 13-16; 2 rows of cheek scales (Ref. 4218).

**Maximum length:** 16.0 cm TL male/unsexed (Ref. 4180).

**Colour:**

**Distribution:** Indo-West Pacific: South and East Africa, including Mauritius, Réunion, Madagascar and Seychelles, to Philippines, north to India, south to northern Australia (Ref. 33390). Extends south on African coast at least to Algoa Bay, South Africa (Ref. 4318).

**Notes:**

#### *Ambassis natalensis* Gilchrist & Thompson, 1908

**Common names:** Ambache (Mayotte, Madagascar, Réunion), Poisson d'argent (FAO), Slank glasvis (South Africa), Slender glassy (FAO, South Africa).

**Description:** Diagnosis: supraorbital spines 1-4; rostral spine absent; rear margin of preopercle entirely serrate; preopercle ridge smooth except for 1-5 tiny spines at rear corner; interopercle

smooth or with 1-4 tiny serrae at angle; two rows of cheek scales; predorsal scales 9-11; lateral line continuous; lower gill rakers 19-22; pectoral-fin rays 14-15; teeth on vomer and palatines in 2-3 rows (Ref. 50956).

**Description:** Dorsal fin with 8 spines and 9-11 soft rays; anal fin with 3 spines and 9-11 soft rays; pectoral fin with 14-15 rays (Ref. 4318, 50956, 52193). Lateral line usually continuous, with 27-29 scales, several specimens from Mauritius with lateral line interrupted by 2-3 scales on one or both sides; vertical scale rows 28-30; horizontal scale rows 9-10; cheek scale rows 2; predorsal scales 9-11 (Ref. 50956, 52193). Gill rakers 8-10+19-22 (Ref. 4318, 50956). Supraorbital spines 1-4, more numerous in largest specimens; preorbital ridge smooth in smallest specimens, becoming serrate at about 35 mm standard length; preorbital edge with 5-11 serrae; retrorse rostral spine absent; preopercle ridge smooth except for 1-5 small spines at lower rear corner; lower edge of preopercle with 9-18 serrae, rear margin entirely serrate; interopercle with 1-4 minute spines at angle (Ref. 50956). Teeth in villiform bands on vomer, palatines, tongue and jaws; palatine teeth in 2-3 rows in fish over about 20 mm standard length (Ref. 50956).

**Maximum length:** 10.0 cm SL male/unsexed; (Ref. 52193)

**Colour:** Live colouration translucent greenish-brown dorsally, head and abdomen silvery; scales with minute melanophores; membrane between second and fourth dorsal-fin spine dusky, black at tip; black lineations along bases of unpaired fins (Ref. 50956).

**Distribution:** Western Indian Ocean: East coast from KwaZulu-Natal south to Algoa Bay in South Africa (Ref. 4318, 7248, 52193). Reported from east Africa (Ref. 4318), including Madagascar (Ref. 4180, 50956) and Mauritius (Ref. 50956).

**Notes:**

## Amphiliidae

### *Amphilius laticaudatus* Skelton, 1984

**Common names:** Breëstert-bergbaber (South Africa), Broadtail mountain catfish (South Africa).

**Description:** Description: Head depressed, 3.8-4 times in standard length; eyes small, dorsal; mouth subterminal, lips fleshy, 3 pairs of barbels, maxillaries reach base of pectoral fins (Ref. 52193). Dorsal fin with 1 unbranched and 6 branched rays; anal fin with 3 unbranched and 4-5 branched rays; pectoral and pelvic fins broad and fanlike, with pectinate primary rays; adipose fin low and confluent with short, deep caudal peduncle; caudal fin forked, with round lobes (Ref. 52193).

**Maximum length:** 5.2 cm SL male/unsexed (Ref. 3818).

**Colour:** Mottled brown, creamy white on underparts of head and abdomen (Ref. 52193).

**Distribution:** Africa: Buzi River system in Mozambique (Ref. 7248, 52193).

**Notes:**

### *Amphilius natalensis* Boulenger, 1917

**Common names:** Natal mountain catfish (South Africa, Zimbabwe), Natalse bergbaber (South Africa).

**Description:** Description: Body narrow and slender, caudal peduncle longer than deep (Ref. 52193). Head depressed, short, 4.75-5 times in standard length, 1.1-1.3 times distance between head and dorsal fin; narrow, head width less than head length; eyes small, dorsal; mouth subterminal, 3 pairs of barbels, maxillaries reach pectoral base (Ref. 52193). Dorsal fin with 1 unbranched and 6 branched rays; anal fin with 3 unbranched and 5-6 branched rays; adipose fin short with a notch behind in KwaZulu-Natal populations, or long, low and confluent behind in Mpumalanga and Zimbabwe populations; caudal fin forked (Ref. 52193).

**Maximum length:** 12.5 cm SL male/unsexed (Ref. 52193).

**Colour:** Colour variable, usually spotted or mottled brown, sometimes dark brown, nearly black (Ref. 52193).

**Distribution:** Escarpment streams from lower Zambezi River in the eastern highlands of Zimbabwe to Umkomaas system in KwaZulu-Natal Drakensberg, South Africa (Ref. 52193); also in Ruo River of Zambezi system in Malawi (Ref. 3818, 52193).

**Notes:**

### *Amphilius uranoscopus* (Pfeffer, 1889)

**Common names:** Common mountain catfish (Namibia, South Africa), Gewone bergbaber (South Africa), Ihijigi (Rwanda), Iminyana (Rwanda), Ishonzi (Rwanda), Mountain catfish (Kenya), Opkyk-bergbaber (Namibia), Stargazer mountain catfish (Kenya, Namibia, Rwanda, South Africa, Zimbabwe), Stargazer mountain catlet (Tanzania), Tshithovhe (South Africa).

**Description:** Description: Head longer and broader than that of *Amphilius natalensis*, length 3.9-4.5 times in standard length, head width equal to or greater than head length (Ref. 52193). Dorsal fin

with 1 unbranched and 6 branched rays; anal fin with 3 unbranched and 5-7 branched rays; adipose fin short and deep, notched behind; caudal peduncle length about equal to its depth; caudal fin emarginate or shallowly forked (Ref. 52193).

**Maximum length:** 19.5 cm TL male/unsexed (Ref. 52331).

**Colour:** Colour variable, usually yellowish brown or greyish brown, mottled or with dark shadows, blotches or spots (Ref. 52193).

**Distribution:** widespread in Central and East Africa (Ref. 7248, 52193, 94654), including Okavango and Zambezi systems, south to the Mkuze system in South Africa (Ref. 7248, 52193). Also in the upper Congo drainage and west to Angola (Ref. 87869). Possibly absent from the upper Little Ruaha and Malawi drainage in Tanzania, and from the northern Malagarasi where this species may be replaced by *A. kivuensis* (Ref. 78218).

**Notes:**

*Zaireichthys monomotapa* Eccles, Tweddle & Skelton, 2011

**Common names:** Eastern sand catlet (Zimbabwe).

**Description:** Diagnosis: This species differs from *Zaireichthys conspicuus*, *Z. lacustris* and *Z. maravensis* in the narrow premaxillary tooth patch and the long lateral line, extending beyond base of anal fin; from *Z. kunenensis* in the narrower premaxillary tooth patch and the greater number of branched caudal rays, 14-16 vs. 11-14; from *Z. kavangoensis* in the longer lateral line, extending beyond anal fin and usually past adipose vs. above anterior to middle of anal fin; from *Z. kafuensis* and *Z. pallidus* in the longer lateral line and the greater number of caudal rays, 14-16 vs. 9-13, and pectoral-fin rays, 7-8 vs. 5-7 (Ref. 86935).

Description: Lateral line long, reaching beyond end of base of anal fin and usually past end of adipose; snout bluntly rounded, not protruding much beyond mouth; eye moderate; mouth less than half head width; barbels moderate or long, the maxillary reaching to the bases of the branched pectoral-fin rays (Ref. 86935). Dorsal fin II, 6-7, usually 6; caudal fin moderately emarginate and with lower lobe usually appreciably longer than the upper, with 14-16 branched rays, with 6-7 in the upper and 8-9 in the lower lobe; anal fin with 10-12 rays, the first 4-6 simple; pectoral fins with 7-8, usually 7 branched rays, the spine bearing 5-9 barbs (Ref. 86935). Premaxillary tooth patch narrow and subrectangular; branchiostegal rays 6-8, usually 7; vertebrae 35-38, usually 37, plus the ural complex, the first haemal spine on the 14th-15th, usually 15th; ribs 6-8, usually 7, pairs, parapophyses often forked basally; humeral process pointed, usually ending about midway between supraoccipital process and first dorsal spine (Ref. 86935).

**Maximum length:** 3.8 cm SL male/unsexed; (Ref. 86935); 4.1 cm SL (female).

**Colour:** Ground colour pale brownish; head brownish; a series of darker bars across the dorsal surface of the body, often with paler centres on the lateral parts; about eight dark patches, often elongated, mid-laterally along the flanks, the first below the dorsal fin and the last at the end of the caudal peduncle; a third series of small faint spots ventro-laterally from above the pelvic to the caudal peduncle (Ref. 86935).

**Distribution:** widespread in the tributaries of middle and lower Zambezi River, tributaries of Lake Malawi, Pungwe River, Buzi River and Save River (Ref. 86935, 94654).

**Notes:***Zaireichthys rotundiceps* (Hilgendorf, 1905)

**Common names:** Gevlekte babertjie (Namibia), Gevlekte-sandbabertjie (South Africa), Sand catlet (Kenya), Spotted catlet (Namibia), Spotted sand catlet (Namibia, South Africa, Zimbabwe, Tanzania).

**Description:** Diagnosis: This species differs from *Zaireichthys lacustris* and *Z. maravensis* in possessing a premaxillary tooth patch that is less than 40% of the mouth width; it has shorter barbels than *Z. wamiensis*, maxillary barbel 0.9-1.3 in head length vs. 0.7-0.9; and it is distinguished from *Z. compactus* by higher number of branched pectoral-fin rays, 7 vs. 6 (Ref. 86935).

Description: Lateral line moderate, ending over middle or anterior part of anal fin base (Ref. 86935). Head broad and depressed; snout blunt; eye moderate; mouth narrow; barbels relatively short (Ref. 86935). Dorsal fin II,5-6; caudal fin slightly emarginate, with the lower lobe a little longer than the upper, the upper and lower lobes each with 7 or 8 branched rays; anal fin with 11-13 rays, the first 3-4 simple; pectoral fins with 7 branched rays (Ref. 86935). Premaxillary tooth patch narrow, less than 40% of mouth width, sub-rectangular; humeral process of cleithrum extending to between level of end of supraoccipital process and base of dorsal fin; branchiostegal rays 6-7 (Ref. 86935).

**Maximum length:** 3.8 cm SL male/unsexed (Ref. 51287).

**Colour:** Preserved: generally yellowish brown with a series of about nine faint dark blotches along centre of flank and traces of additional series above and below (Ref. 86935).

**Distribution:** Lake Victoria, Rufiji and Lake Rukwa systems (Ref. 78218), questionably in Tana River in Kenya (Ref. 52331). Also in Okavango, Zambezi, Pungwe, Buzi, Save systems as well as in the Lake Malawi catchment (Ref. 7248). Presence in the Congo basin questionable (Ref. 51287, 58032, 78218). As it currently stands, this species probably represents a complex of several different species (Ref. 7248).

**Notes:**

## Anabantidae

### *Ctenopoma multispine* Peters, 1844

**Common names:** Climbing perch (Zambia), Kafudji (Angola), Many spined climbing perch (Namibia), Many-spined climbing perch (Namibia), Manyspined climbing perch (Namibia, South Africa, Zimbabwe), Manyspined ctenopoma (AFS), Musuta (Angola), Nkomo (Zambia), Stekelrige kurper (Namibia, South Africa).

**Description:** Description: Body elongated, eyes far forward, with a single median lateral line pore between them (Ref. 52193). Well-developed air-breathing organ in chamber above gills (Ref. 52193). Dorsal fin with 16-19 spines and 8-9 soft rays; anal fin with 8-9 spines and 8-10 soft rays (Ref. 52193). Scales ctenoid and coarse, 30-32 in lateral line; head completely scaled, edge of gill cover with undulating series of strong spines, cheek scales of mature males also develop visible spines along free edges (Ref. 52193).

**Maximum length:** 13.5 cm SL male/unsexed (Ref. 5219).

**Colour:** Brown with irregular dark brown or black bars and spots (Ref. 52193).

**Distribution:** Lufira River, Lualaba-Upemba, Luapula-Moero in Democratic Republic of the Congo, Upper Zambezi in Zambia and Angola and Cubango-Okovango-Ngami in Angola and Botswana (Ref. 6803). Also known from the Kunene (Ref. 120641), the Kafue and rivers of coastal Mozambique (Ref. 7248, 52193), the Cuanza (Ref. 7248, 52193, 120641) and the Kwango, Kwilu and Kasai systems (middle Congo River basin) in Angola (Ref. 11970).

**Notes:**

### *Microctenopoma intermedium* (Pellegrin, 1920)

**Common names:** Blackspot climbing perch (FAO, Namibia, South Africa, Zimbabwe), Singulungwe (Namibia), Swartkol kurper (Namibia), Swartkol-kurper (South Africa).

**Description:** Description: Body slender, ellipsoid; abdomen short, pelvics far forward, caudal rounded (Ref. 52193). Head pointed, with eyes far forward; mouth small, with sharp, conical teeth (Ref. 52193). Dorsal fin with 15-16 spines and 8-9 soft rays; anal fin with 8-9 spines and 8-9 soft rays (Ref. 52193). Lateral line scales 25-30 (Ref. 52193).

**Maximum length:** 6.2 cm TL male/unsexed (Ref. 6803).

**Colour:** Usually dark brown or black, head with dark bars radiating from eye, 7-13 dark vertical bars along body and a black spot at base of caudal fin, lappets of dorsal and anal fins white (Ref. 52193). Breeding males turn turquoise with dark strips (Ref. 52193).

**Distribution:** Okavango, upper and lower Zambezi and Kafue rivers, and St. Lucia basin, KwaZulu-Natal (Ref. 52193). Also in the southern tributaries of the Congo system (Ref. 52193, 120641), including the Kwango, Kwilu, Lulua, upper Lualaba (Ref. 26634) and Luapula-Mweru system (Ref. 361, 42135, 95585).

**Notes:**

## Anguillidae

### *Anguilla bicolor* McClelland, 1844

**Common names:** Amalona (Madagascar), Anguila de aleta corta (FAO old), Anguille bicolore (Comoros, Mayotte, Madagascar, Mauritius, Réunion, Seychelles, Rodriguez), Anguille à nageoire courte (FAO), Enguia de brabatana curta (Mozambique), Indonesian Shortfin eel (FAO old), Kortvinpaling (South Africa), Mkunga (Kenya, Tanzania), Mukunga (Kenya), Nkunga (Malawi), Shortfin eel (Kenya, South Africa, Zimbabwe), Z'amab (Comoros, Mayotte, Madagascar, Mauritius, Réunion, Seychelles, Rodriguez), Z'anguille (Comoros, Mayotte, Madagascar, Mauritius, Réunion, Seychelles).

**Description:** Description: Dorsal fin origin above vent (Ref. 12693), much closer to anal fin origin than to gill slit (Ref. 52193). Eyes before angle of jaw (Ref. 52193). Teeth bands broad without gasps between teeth rows; teeth small, inconspicuous, multiserial, forming broad continuous bands on jaws and vomer; vomerine tooth-band extending as far back as bands of upper jaw but more pointed posteriorly (Ref. 4832, 52193).

**Maximum length:** 123 cm TL male/unsexed (Ref. 6371); common length: 65.0 cm TL male/unsexed (Ref. 2871).

**Colour:** Dorsal body colour uniform (Ref. 79840). Olive to dark bluish-brown dorsally, lighter ventrally from jaw to anus (Ref. 3971, 52193). Mature adults change to bronzy silver (Ref. 52193).

**Distribution:** Indo-Pacific: widespread in the tropical Indian Ocean and western Pacific. Known in Australia only from streams in the Kimberley regions of northern western Australia. Africa: widespread but relatively uncommon along east and southeast African coast and Madagascar (Ref. 7248, 52193). Mozambique; Lower Zambezi River (Ref. 39494). Most easily confused with *Anguilla obscura* and the surest way to distinguish them is by the count of vertebrae (Ref. 9828).

#### Notes:

### *Anguilla labiata* (Peters, 1852)

**Common names:** African mottled eel (FAO old, Kenya, South Africa, Zimbabwe, Zambia), Afrika-bontpaling (South Africa), Afrikaanse bontpaling (South Africa), Afrikaanse-bontpaling (South Africa), Anguila moteada (FAO old), Anguille marbrée (FAO old), Anguille marbrée africaine (Réunion), Enguia africana (Mozambique), Fiyoka (Kenya), Mishiligii (Ethiopia), Mkonge (Kenya, Tanzania), Mkunga (Kenya, Tanzania), Mukunga (Kenya), Panga (Kenya), Qurxxummi bofa fakaatu (Ethiopia), Z'amab (Réunion), Z'anguille (Réunion).

**Description:** Description: Typical eel form with dorsal fin origin nearer anus than gill slit (Ref. 52193), dorsal fin origin about midway between pectoral fin and anus (Ref. 4967). Jaw hinge behind eye, teeth forming narrow bands divided by groove, vomerine band with broad base and narrow extension (Ref. 52193). Caudal fin confluent with dorsal and anal fin (Ref. 4967).

**Maximum length:** 175 cm TL male/unsexed (Ref. 48660).

**Colour:** Yellowish brown, mottled with dark brown or black (Ref. 4967, 52193).

**Distribution:** Kenya to South Africa (Ref. 3506), uncommon south of the Save River (Ref. 7248, 52193). Also Reunion and Mauritius (Ref. 33390). Dominant eel species in the Zambezi system and farther north in East Africa (Ref. 52193).

**Notes:***Anguilla marmorata* Quoy & Gaimard, 1824

**Common names:** Amalomaitso (Madagascar), Amalombandana (Madagascar), Amalona (Madagascar), Anguille (Réunion), Anguille marbrée (FAO, Comoros, Mayotte, Madagascar, Mauritius, Réunion, Rodriguez), Congre (Réunion), Drietra (Madagascar), Enguia gigante (Mozambique), Giant mottled eel (FAO, South Africa), Grande anguille marbrée (FAO old), Madagascar mottled eel (South Africa, Zimbabwe), Madagaskar-bontpaling (South Africa), Reus-bontpaling (South Africa), Z'amab (Comoros, Mayotte, Madagascar, Mauritius, Réunion), Z'anguille (Comoros, Mayotte, Madagascar, Mauritius, Réunion).

**Description:** Diagnosis: Distinguished from all other species by the mottled colour and the long dorsal fin, which begins closer to the gill opening than to the anus (Ref. 9828).

Description: Typical eel form with dorsal fin origin nearer to gill slit than to anus, distance from dorsal fin to anal 16-19% of total length (Ref. 52193). Head rounded; snout depressed; lower jaw protruded; gill openings small; maxillary toothbands with distinct longitudinal groove (Ref. 45563, 52193). Pectoral fin rounded; pelvic fin absent (Ref. 45563). Scales matted-like under skin (Ref. 45563).

**Maximum length:** 70.0 cm TL male/unsexed (Ref. 57749); 200.0 cm TL (female); common length: 26.3 cm TL male/unsexed (Ref. 35840).

**Colour:** Adults have a brownish to black marbling on their back on a greyish yellow background; this colouration can fade away; white belly; younger specimens are greyish to orange and the marbling is less visible (Ref. 48622). Body colour brown speckles scattered on back, sides and fins; yellow between speckles and edge of pectoral fin; belly white or pale blue (Ref. 45563).

**Distribution:** Indo-Pacific: East Africa, inland Mozambique and lower Zambezi River to French Polynesia, north to southern Japan (Ref. 7050). Also rivers of Madagascar and adjacent islands (Ref. 52193).

**Notes:***Anguilla mossambica* (Peters, 1852)

**Common names:** African longfin eel (FAO, AFS, Kenya), Amalomainty (Madagascar), Amalomaitso (Madagascar), Anguila de aleta larga de Africa (FAO old), Anguille du Mozambique (FAO, Comoros, Mayotte, Madagascar, Mauritius, Réunion), Anguille à longue nageoire (FAO old), Enguia moçambicana (Mozambique), Geelbek-paling (South Africa), Geelbekpaling (South Africa), Longfin eel (Kenya, South Africa, Zimbabwe), Mkunga (Kenya, Tanzania), Mukunga (Kenya), Tona (Madagascar), Z'amab (Comoros, Mayotte, Madagascar, Mauritius, Réunion), Z'anguille (Comoros, Mayotte, Madagascar, Mauritius, Réunion).

**Description:** Description: Head and body elongated, with thick smooth skin, scales minute and embedded (Ref. 52193). Dorsal fin origin well in advance of anal fin origin, both joined with caudal (Ref. 4967, 52193). Mouth large, lips thick, teeth fine, forming narrow bands on jaws and palate; gill slits small, restricted to sides in front of pectoral fins (Ref. 52193).

**Maximum length:** 150 cm TL male/unsexed (Ref. 3506); 120.0 cm SL (female).

**Colour:** Olive to greyish black dorsally, lighter ventrally (Ref. 3971, 52193). On maturity prior to entering the sea the colour changes to dark bronze above and light yellow or silvery below (Ref. 52193).

**Distribution:** Western Indian Ocean: east coast rivers of Africa from Kenya south to Cape Agulhas, also in Madagascar and other western Indian Ocean islands (Ref. 7248, 52193). Reported from New Caledonia (Ref. 11889).

**Notes:**

## Apogonidae

### *Fibramia lateralis* (Valenciennes, 1832)

**Common names:** Boggel-kardinaal (South Africa), Humpback cardinal (South Africa).

**Description:** Description: Deep-bodied, head profile slightly concave; greatest depth of body 2.5-2.7 times in standard length; head 2.6 times in standard length; eye diameter 3.8 times in head length (Ref. 4329, 48635, 90102). Predorsal section of head high, forming a hump above eyes (Ref. 4329). Dorsal fin with 7 spines and 9 soft rays; anal fin with 2 spines and 8 soft rays; pectoral fin with 14 rays (Ref. 4329). Scales on lateral line 28; predorsal scales 6-7 (Ref. 4329).

**Maximum length:** 11.0 cm TL male/unsexed (Ref. 9710).

**Colour:** Silvery (Ref. 48635). A dark narrow line from angle of opercle to a small spot at caudal fin base; front and tip of 1st dorsal fin black in colour (Ref. 4329).

**Distribution:** Indo-Pacific: East Africa to Tonga, north to Japan; Mariana and Caroline islands in Micronesia; south to Lord Howe Island (Ref. 9710).

**Notes:**

## Ariidae

### *Arius africanus* Günther, 1867

**Common names:** African sea catfish (FAO old, Kenya, Tanzania), Bagre africano (FAO old), Cangala Africana (Mozambique), Fumi (Tanzania), Hongwe (Tanzania).

**Description:** Description: Dorsal profile of head with a steep slope to first dorsal-fin base (Ref. 3290). Mouth with 3 pairs of barbels, the maxillary pair extending to slightly beyond pectoral-fin base; head shield not very granulated; supraoccipital process longer than broad at base, its hind end nearly straight; median longitudinal groove on head shallow, extending to just behind posterior margin of orbit anteriorly, not reaching supraoccipital process posteriorly; premaxillary band of teeth in upper jaw 5 times as long as broad, mandibular band of teeth in lower jaw deeply curved and medially interrupted; palate teeth, on roof of mouth, granular, in a single triangular patch on each side, diverging behind, with a conical projection at the anterior end, well separated (Ref. 3290). First dorsal and pectoral fins each with a strong spine; total anal fin rays 19-21 (Ref. 3290).

**Maximum length:** 45 cm SL male/unsexed (Ref. 4967).

**Colour:** Back brownish, sides silvery, belly white (Ref. 3290).

**Distribution:** Pangani River in Tanzania and estuaries of Madagascar (Ref. 3876).

**Notes:**

### *Arius madagascariensis* Vaillant, 1894

**Common names:** Cangala malgache (Mozambique), Fumi (Tanzania), Gogo (Madagascar), Hongwe (Tanzania), Madagascar sea catfish (FAO), Mâchoiron malgache (FAO), Vahona (Madagascar).

**Description:** Description: Body moderately compressed; dorsal profile of head with a gentle slope up to first dorsal-fin base (Ref. 3290, 56505). Head width 17.5-20.5% of standard length; mouth with 3 pairs of barbels, the maxillary pair extending to pectoral-fin base; head shield granulated behind orbit with a blunt conical protuberance above eye; supraoccipital process short, with a median keel, as long as broad at base, its hind end rounded; median longitudinal groove shallow, wide in the middle, tapering at the ends, not reaching to supraoccipital process; predorsal plate angular, cup-shaped (Ref. 3290, 56505). A single pair of ovoid vomerine tooth patches; premaxillary band of teeth in upper jaw in a broad band, 5 times as long as broad, mandibular band of teeth in lower jaw slightly curved and medially interrupted; 2 large tooth patches on roof of mouth, one on each side, well separated from each other with concave inner margins, and rounded or globular teeth (Ref. 3290, 56505). First dorsal and pectoral fins each with a strong spine; dorsal and pectoral fin outermost ray prolonged; pectoral fin filament almost reaching pelvic fins in some specimens; pelvic fin also elongated, reaching anal fin in larger individuals; total anal fin rays 16 (Ref. 3290).

**Maximum length:** 70.0 cm SL male/unsexed (Ref. 4967); common length : 20.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Dorsal surface of head and body uniform grey to greyish brown, upper third of head and body darkest, gradually fading to a lighter colour along middle third of head and body; lower third and ventral surfaces of head and body dirty white (Ref. 56505). Adipose fin grey, dorsal and caudal fins greyish, fin-rays of all other fins with scattered grey melanophores (Ref. 3290, 56505).

**Distribution:** western coast of Madagascar; seldom on the eastern coast (Ref. 3876). Also found in Mozambique (Ref. 5213) and Tanzania (Ref. 4967).

**Notes:**

*Plicofollis polystaphylodon* (Bleeker, 1846)

**Common names:** Bagre mozambiqueño (FAO), Cangala moçambicana (Mozambique), Fumi (Tanzania), Hongwe (Tanzania), Mozambican sea catfish (FAO old), Mozambique sea catfish (FAO old), Mâchoiron barbarin (FAO old), Mâchoiron barbarin (FAO)

**Description:** Description: Dorsal profile of head gently rising to first dorsal-fin base (Ref. 3290). Mouth with 3 pairs of barbels, the maxillary pair extending to slightly beyond orbit, relatively longer in small specimens; head shield rugose and granulated in the hind part near the occipital region; supraoccipital process keeled, strongly elevated transversally, its hind end irregularly convex; median longitudinal groove extending from near extremity of snout, converging posteriorly to base of occipital process; predorsal plate crescentic; premaxillary band of teeth in upper jaw 4 or 5 times as long as broad, mandibular band of teeth in lower jaw deeply curved, and medially interrupted; palate teeth conical, in 2 small oval, widely separated patches, anterior patch ovate, much smaller than the elongate, carrot-shaped posterior one (Ref. 3290). First dorsal fin and pectoral fins each with a strong spine; total anal fin rays 15-17 (Ref. 3290).

**Maximum length:** 35.0 cm SL male/unsexed; (Ref. 4967)

**Colour:** Greyish-brown above; silvery below; fins dusky (Ref. 3290).

**Distribution:** Western Indian Ocean: along the east coast of Africa and Madagascar (Ref. 3290). Eastern Indian Ocean: Indonesia (Java and Sumatra), Singapore and Celebes. Western Pacific: Papua New Guinea (Ref. 7050) and Australia (Ref. 7300).

**Notes:**

## Bagridae

### *Bagrus docmak* (Fabricius, 1775)

**Common names:** Ab chanap (Chad), Abagun (Nigeria), Aboro (Nigeria), Aboushanap (Cameroon), Abu shanad (Sudan), Adwar (Sudan), Alau (Sudan), Asa-oboro (Nigeria), Bandjaho (Cameroon), Bawe (Cameroon), Bayad (Sudan), Bobo (Cameroon), Cat-fish (Uganda), Damalo (Cameroon), Dai (Chad), De (Chad), Deing (Chad), Dinko (Nigeria), Doya (Cameroon), Doza (Cameroon), Dushko (Sudan), Ebiti (Nigeria), Fergus (Ethiopia), Ganda (Uganda), Iko (Nigeria), Kabarocce (Sudan), Kabarus (Sudan), Kibogobogo (Tanzania), Kuilsiuugu (Burkina Faso), Lam (Sudan), Lazeou (Cameroon), Lazio (Cameroon), Lisi (Kenya), Loruk (Kenya), Male belly up (Cameroon), Malou (Cameroon), Mbofu (Tanzania), Mboli (Uganda), Melagenna (Cameroon), Mpono (Congo Dem Rp), Mésigélé (Cameroon), Ndarka (Cameroon), Njoka (Cameroon), Nzarou (Cameroon), Obanga (Uganda), Omukocho (Uganda), Omukora (Uganda), Oreko (Uganda), Ragon ruwa (Nigeria), Safdu baleeru (Senegal), Samufin (Burkina Faso), Semutundu (FAO, AFS, Uganda, Tanzania), Seu (Kenya), Sew (Kenya), Sewu (Kenya, Tanzania), Shambami (Nigeria), Sihin sou (Cameroon), Silanne (Senegal), Silver catfish (Cameroon, Ghana, Nigeria), Ssemutundu (Uganda), Sudan catfish (Kenya), Wallouce (Senegal), Wawe (Cameroon), Waza (Cameroon), Woulo segayo (Cameroon), Yalefo (Ghana), Yerengirimo (Sudan).

**Description:** Diagnosis: head depressed (Ref. 43434), broad, about 1.3-1.6 times as long as wide (Ref. 28714, 30488, 57125), squarish when viewed from above (Ref. 28714), without rough texture (Ref. 3034). Head width measured at base of preopercle 58.9-71.8% head length; 12-16 gill rakers on first gill arch (Ref. 81641). Body slightly elongated, 5-6 times longer than deep (Ref. 7324, 57125, 81641). Four pairs of barbels (Ref. 34290). Premaxillary tooth plate 5-7 times longer than wide, a little shorter than and about as broad as the band of vomerine teeth (Ref. 2988). Premaxillary toothplate width less than 2.5 times in head length (Ref. 57125). Occipital process 3-5 times longer than wide (Ref. 57125, 81641). Predorsal length 2.4-2.7 times in standard length; 9-10 branched dorsal fin rays, not or only slightly filamentous (Ref. 57125, 81641). Long adipose dorsal fin present (Ref. 34290). Standard length/caudal peduncle length 2.4-2.7 (Ref. 57125). Upper lobe of caudal fin often with a short filament (Ref. 7324, 57125, 81641).

Description: head without rough texture (Ref. 3034). Snout broadly rounded, projecting beyond the lower jaw (Ref. 2988). Eye with a free border (Ref. 51936, Ref. 36901). Four pairs of circum-oral barbels, showing great variation in length, being relatively longer in smaller individuals (Ref. 34290). Maxillary barbel 1.2-3.25 times head length (Ref. 3032, Ref. 43434), reaching ventral or not quite so far in adult and reaching anal fin or caudal peduncle in juveniles (Ref. 2899). Nasal barbel 0.2-0.4 times head length (Ref. 367). External mandibular barbel 0.5-1 times head length (Ref. 3032). Internal mandibular barbel 0.36-0.64 times head length; occipital processus not reaching the interneural (Ref. 51936). Dorsal fin short with a well-developed spine (Ref. 34290). First branched fin rays of dorsal fin hardly or not filamentous (Ref. 30488, 81641), longest ray 1/3-1/4 of SL (Ref. 57125, 81641). Last ray of dorsal fin in front of inner ray of ventral fin (Ref. 4912). Dorsal spine smooth (Ref. 36900). Adipose dorsal fin 4-5x as long as deep (Ref. 43434), 1.66-2x as long as rayed dorsal (Ref. 2899). Anal fin short (Ref. 34290), 0.5-0.7x head length (Ref. 367), inserted under the last branched dorsal fin ray or just behind this (Ref. 2756). Some caudal fin rays may have filamentous extension (Ref. 34290). Upper caudal lobe comprised 3-4 times in SL (Ref. 81641). Caudal skeleton morphology described in Ref. 51975. Pectoral spine serrated along the inner side (Ref. 3032). No pectoral filaments (Ref. 367, 3036).

**Maximum length:** 127 cm TL male/unsexed (Ref. 42492); common length: 62.0 cm TL male/unsexed (Ref. 11248).

**Colour:** Dark grey-black above, creamy-white below (Ref. 34290). Body sometimes shot with gold and green (Ref. 4904). Some blackish may be present on the dorsal (Ref. 11235), anal and ventral fins (Ref. 2899). Blackish dots sometimes present on the posterior part of the back and on the adipose fin (Ref. 11235). Freshly caught fish have a greenish iridescence which soon fades to a dark greyish blue (Ref. 3023). Some juveniles may be completely blackish (Ref. 7324, 57125) with the exception of the ventral surface of the body (Ref. 81641). Some other specimens with dark brown spots on flanks and on adipose and caudal fin (Ref. 81641).

**Distribution:** widely distributed throughout Tchad, Niger, Volta, Senegal (Ref. 57125), Mono, Oueme, Cross and Sanaga Rivers, as well as the Rift Valley Lakes Edward, George, Albert, Victoria and Tanganyika (Ref. 81641), but not Lake Kivu (Ref. 46152). Widely distributed in Nile system (Ref. 28714, 31439, 58460). In the Lukuga River (Lake Tanganyika outflow), known up to the Kisimba-Kilia rapids (Ref. 93587).

**Notes:**

### *Bagrus orientalis* Boulenger, 1902

**Common names:** Katoga (Tanzania), Kitoga (Tanzania).

**Description:** Head much depressed, smooth above or finely striated on sides of elongate fontanelle; premaxillary band of teeth 5-6 times as long as broad, nearly as broad as the band of vomerine teeth; snout truncate (Ref. 2988). Snout projecting beyond lower jaw (Ref. 52162, Ref. 2988). Maxillary barbel 1.66-2 times head length, reaching pelvics (Ref. 52162), but not passing the base of the pelvics (Ref. 1884). Nasal barbel  $1/5-1/3$  of head length; inner mandibular barbel 0.33-0.4 times head length (Ref. 2988). Outer mandibular barbel 0.60-0.66 times head length (Ref. 52162, Ref. 2988). Occipital process long and narrow, almost reaching the interneural (Ref. 52249). Last ray of dorsal fin above vertical of first ray of pelvics; dorsal spine smooth, feeble; adipose fin 4-5.5 times as long as deep, about twice as long as dorsal fin; caudal fin deeply forked, with pointed lobes (Ref. 2988). Upper lobe of caudal fin with short filament (Ref. 52249). Pectoral spine moderately strong, smooth, or very slightly serrated behind (Ref. 2988).

**Maximum length:** 44.7 cm TL male/unsexed (Ref. 52249).

**Colour:** brown or olive above, white beneath; black dots sometimes scattered on the back and on the adipose and caudal fins (Ref. 2988).

**Distribution:** River Pangani (Tanzania) (Ref. 3236) and Lake Chiuta (Ref. 46841).

**Notes:**

## Blenniidae

### *Omobranchus ferox* (Herre, 1927)

**Common names:** Gossamer blenny (South Africa), Gossamer oysterblenny (FAO), Spinnerak-blennie (South Africa).

**Description:** Diagnosis: A good diagnostic characteristic is a short diagonal line found just behind the eye (Ref. 44091). Head without cirri; lower end of gill opening usually opposite 4th or 5th pectoral fin ray; sensory pores in infraorbital and interorbital canals mostly 8 and 3 respectively; lateral line tubes 1 to 4 (Ref. 559).

Description: No fleshy crest on top of head; median interorbital pore present in 98% of specimens (Ref. 4404). Dorsal fin with 11-13 spines and 20-23 soft rays; anal fin with 2 spines and 22-26 soft rays (Ref. 4404).

**Maximum length:** 6.0 cm SL male/unsexed (Ref. 4404).

**Colour:** Body with faint, dusky bands anteriorly; males with a dusky spot distally at rear end of dorsal fin (Ref. 4404).

**Distribution:** Indo-Pacific: Lake Poelala and Maputo Bay in Mozambique (Ref. 4404, 127963), but not known from East Africa north of Mozambique, northern Indian Ocean, Red Sea and Persian/Arabian Gulf (Ref. 127963). Also Sri Lanka (Ref. 4404, 127963) and elsewhere to east coast of India, Philippines, Indonesia, Thailand, Vietnam, Taiwan, New Guinea and Australia (Ref. 127963). Invasive in Hawaii and continental United States (Ref. 127963).

**Notes:**

## Carcharhinidae

### *Carcharhinus leucas* (Valenciennes, 1839)

**Common names:** Boriloha (Madagascar), Bulhaai (South Africa), Bull shark (FAO, AFS, Kenya, South Africa), Ehouatagbo (Benin), Gaidé guedj (Senegal), Ivanga sheu (Comoros), Jarjur Global, Macipunde (Zimbabwe), Madjibundi (Mozambique), Marracho touro (Mozambique), Nkondjé (Gabon), Nkwégnan (Gabon), Pattamó (Gambia), Requin boule-dogue (Gabon), Requin bouledogue (FAO), Requin chasseur (Mauritius), Requin-bouledogue (FAO old), Tiburón sarda (FAO), Tiburón toro (AFS), Zambesihai (South Africa), Zambezi shark (South Africa, Zimbabwe).

**Description:** Diagnosis: *Carcharhinus leucas* is a massive shark with a short, broad and blunt snout, small eyes and triangular saw-edged upper teeth, and lack of interdorsal ridge, characters which are sufficient to distinguish this species (Ref. 26938).

Description: A large carcharhinid characterized by its massive body, a very short and rounded snout and tiny, round eyes (Ref. 81283, 81623). Labial folds rudimentary, nasal flap broadly triangular (Ref. 81623). Teeth in the upper jaw are upright, strongly serrated, triangular and broad at their bases, with strongly denticulate edges; teeth in the lower jaw are more slender and pointed, their edges finely denticulate (Ref. 12484, 81283, 81623). Symphysial teeth present on both jaws; tooth formula 12-14/12-13 on each side of jaws (Ref. 81623). Spiracles absent, posterior lateral gill-slits overlapping origin of pectoral fins (Ref. 81623). First dorsal fin broad and triangular, slightly convex anteriorly but with a concave posterior margin; distinctly smaller than the second, less than 3.2 times height of second dorsal fin; beginning slightly before anal-fin origin; no interdorsal ridge (Ref. 5578, 81253, 81283, 81623). Second dorsal fin much smaller than first, situated over anal fin (Ref. 81623). Pectoral fins rather large and broad (Ref. 81623). Posterior margin of anal fin strongly concave (Ref. 81623). Precaudal vertebral centra 101-103, total vertebral centra 198-227 (Ref. 81623).

**Maximum length:** 360 cm TL male/unsexed (Ref. 85726); 400.0 cm TL (female); common length: 260 cm TL male/unsexed (Ref. 9253).

**Colour:** The colour of the body is predominantly grey with a pale to white underside (Ref. 5578, 12484, 81623). Juveniles have black tips to their fins, which fade with age (Ref. 9997, 12484).

**Distribution:** Cosmopolitan in tropical and subtropical waters (Ref. 81283): widespread in warm oceans, rivers and lakes (Ref. 4716). Western Atlantic: Massachusetts, USA to Argentina (Ref. 58839); eastern Atlantic: Morocco, Senegal to Angola (Ref. 81283, 81623); Indo-Pacific: Kenya and South Africa to India, then, Viet Nam to Australia; southern Baja California, Mexico to Ecuador and possibly occurring in Peru. Africa: in freshwater found in rivers of West Africa from Gambia River to Ogowe River (Ref. 81283) and in the Cuanza in Angola (Ref. 120641).

**Notes:**

## Centrarchidae

### *Micropterus salmoides* (Lacepède, 1802)

**Common names:** Achigan à grande bouche (FAO, Mauritius), American black bass (Zambia), Black bass (Kenya, Mauritius, South Africa), Green bass (Kenya), Grootbek-baars (South Africa), Largemouth bass (AFS, old FAO name, Kenya, Namibia, South Africa, Zimbabwe), Largemouth black bass (FAO), Lobina negra (AFS), Perca atruchada (FAO), Ramafelia (South Africa), Форелеокунь (=окунь большеротый черный) (FAO), 大口黑鲈 (FAO).

**Description:** Description: Mouth large; maxillary extending beyond the eye; small caniniform teeth in bands on jaws (Ref. 40476, 52193). Dorsal fin with 9-10 spines and 12-13 soft rays; dorsal fin membrane deeply cleft between spinous and soft-rayed sections; anal fin with 3 spines and 9-11 soft rays; pelvic fins not joined by a membrane; caudal fin emarginate or rounded; caudal fin with 17 rays (Ref. 2196, 40476, 52193). Lateral line complete, 58-69 scales, 6-8 between lateral line and first dorsal spine, no scales on base of dorsal or anal fins (Ref. 52193).

**Maximum length:** 97.0 cm TL male/unsexed (Ref. 86798); common length : 40.0 cm TL male/unsexed (Ref. 556).

**Colour:** Green to olive dorsally, light green on flanks, milk-white to yellow ventrally, with a black band running from the operculum to the base of the caudal fin; a connected series of short, dark olive green vertical bars forms an irregular band along body, 2 or 3 broad olive stripes radiate behind eye (Ref. 40476, 52193).

**Distribution:** North America: St. Lawrence - Great Lakes, and Mississippi River basins from southern Quebec to Minnesota and south to Gulf; Atlantic and Gulf drainages from North Carolina to Florida and to northern Mexico. The species has been introduced widely as a game fish and is now cosmopolitan. Several countries report adverse ecological impact after introduction.

**Notes:**

## Cichlidae

### *Astatotilapia calliptera* (Günther, 1894)

**Common names:** Eastern bream (South Africa), Eastern happy (South Africa, Zimbabwe), Kolokoto (Tanzania), Makumba (Malawi), Nkakafodya (Malawi), Oostelike happie (South Africa), Suli (Mozambique), Utaka (Malawi).

**Description:** Description: moderately slender-bodied; mouth small; frontal profile straight; caudal fin rounded; females smaller than males (Ref. 52307).

**Maximum length:** 15.0 cm SL male/unsexed (Ref. 4967).

**Colour:** males with several large orange egg spots in anal fin; lower parts of body and breast yellowish; body scales yellowish to pale orange with bluish to silvery margins; upper half of body somewhat darker than lower; rows of orange maculae visible in dorsal and caudal fins; 2 dark longitudinal bands or several dark vertical bars may occasionally be visible on the body; females with a plain, pale silvery to brownish coloration (Ref. 52307).

**Distribution:** Lakes Malawi, Chiuta and Chilwa; Lower Zambezi, Buzi, Pungwe and Save River systems.

**Notes:**

### *Astatotilapia swynnertoni* (Boulenger, 1907)

**Common names:**

**Description:** Description: Depth of body 2.5 times in total length; length of head 3 times in total length (Ref. 130264). Snout obtuse, with straight or convex profile, as long as the eye, which a little exceeds interorbital width and is contained 3.3 times in length of head; mouth extending to below anterior border of eye or a little beyond; maxillary exposed at the end; lips rather thick; 3 series of tricuspid teeth and an outer series of rather large bicuspid teeth, 40-42 in the upper jaw; the cusps subequal and very obtuse (Ref. 130264). Gill-rakers short, 8 on lower part of anterior arch (Ref. 130264). Dorsal fin with 15 spines and 9-10 soft rays; spines increasing in length to the last, which measures nearly half length of head; longest soft rays  $\frac{2}{3}$  length of head; anal with 3 spines and 8-9 soft rays; third spine shorter than last dorsal spine; pectoral fin barely  $\frac{3}{4}$  length of head, not extending to origin of anal fin; pelvic fin reaching origin of anal fin or a little beyond; caudal fin rounded (Ref. 130264). Scales ctenoid, 29-31 in lateral series; 2.5-3 scales above lateral line, 10-11 scales below lateral line, upper lateral line with 20-22 scales, lower lateral line with 10-11 scales; large scales on the opercle; 3-4 series of scales on the cheek (Ref. 130264).

**Maximum length:** 9.5 cm TL male/unsexed (Ref. 4983).

**Colour:** Dark olive-brown, with ill-defined black crossbars; a black vertical bar below the anterior half of the eye and a black opercular spot; fins grey; male with two or three round yellow spots on the anal fin (Ref. 130264).

**Distribution:** Africa: Buzi River and Lower Pungwe southwards to the Save in Mozambique (Ref. 4983).

**Notes:**

*Astatotilapia tweddlei* Jackson, 1985

**Common names:**

**Description:** Diagnosis: body relatively slender, its depth 32-37% of standard length; snout pointed; mouth large, oblique, lower jaw 37-45% of head length; caudal fin well rounded, slender, maximum width when extended 75-80% of its length; caudal peduncle longer than deep, its length/depth 1.10-1.44; chest scales relatively small, 12-14 in mid-ventral line between the row's origin on the isthmus and its termination between pelvic fins; colouration of breeding males distinctive with a well-marked series of maroon red spots along flanks, in parallel rows along scale rows except rows on and above upper lateral line (Ref. 49182).

Description: Dorsal head and snout profile with a slight interorbital concavity and otherwise straight, but with premaxillary pedicels often forming a prominent step in larger individuals; angle of dorsal head profile 30-35° to the horizontal (Ref. 49182). Widest breadth of snout equal to or slightly greater than its length; posterior maxillary tip extending to at least the vertical from anterior orbital margin; lower jaw protruding slightly in advance of upper when closed (Ref. 49182). Gill-rakers short, 8-10, rarely a reduced 11th, on lower limb of first arch, the upper (posterior) 3-4 broad, bifid or thickly T-shaped in older fishes, the lower (anterior) 2-3 reduced (Ref. 49182). Scales ctenoid except on nape and chest where they are cycloid; lateral line interrupted, the last 2-6 scales of the upper lateral-line series separated from dorsal-fin base by 1-1.5 scales; thoracic scales smaller than those on nape and belly, 12-14 scales in mid-ventral line between the row's origin on isthmus and its termination between pelvic fins; 5-8 scales between anterior insertions of pectoral and pelvic fin bases; 5-6 between dorsal-fin origin and upper lateral line; cheek with 3-5 series of scales; scales in longitudinal series 28-32 (Ref. 49182). Dorsal fin with 14-16 spines and 9-10 soft rays; anal fin with 3 spines and 8-10 soft rays; first pelvic ray produced, reaching to vent in small fishes and as far as third anal spine in larger individuals; pectoral fin shorter than head; caudal fin distinctly rounded and relatively elongate, its maximum width when extended 75-80% of its length (Ref. 49182). Jaws with single outer row of larger teeth, 1-3 irregular rows of considerably smaller inner teeth, mainly in 2 rows; up to 75 mm standard length most outer teeth in both jaws are laterally compressed, bicuspid with one cusp considerably smaller and diminishing and becoming rounded with increasing size of fish; above this size the minor cusp disappears into a rounded shoulder with the major cusp becoming more pointed, such unicuspid teeth occurring mainly in the lower jaw and posterolaterally in the upper; in fish larger than 86 mm standard length the teeth tend to lose the compressed base and become caniniform and relatively slender; tooth number variable, becoming more numerous with increased size; fish smaller than 45 mm standard length with about 40 teeth in upper jaw, larger fish with up to 54 teeth in the outer series; inner teeth small and mostly tricuspid, the minor cusps very small and equal in size (Ref. 49182). Lower pharyngeal bone of the usual pattern in *Astatotilapia* with the teeth in the median rows somewhat enlarged and stout, cuspidate in juveniles but becoming conical and sub-molariform in adults; pharyngeal bone is comparatively slender and with longer blade-like portion than in other species of the genus (Ref. 49182). Vertebrae, excluding the fused PU and U elements 28-30, comprising 12-13 precaudal and 15-16 caudal vertebrae (Ref. 49182).

**Maximum length:** 9.0 cm SL male/unsexed (Ref. 49182).

**Colour:** Preserved specimens with ground colour evenly brown in both sexes, lighter below; usually plain but rarely with faint dark transverse bars and faint longitudinal line midway along posterior third of body to caudal peduncle; well-marked series of dark brown spots along flanks, in parallel lines along scale rows except above upper lateral line, the location of each spot is such that it

appears to lie at the free margins of the scale overlying it; a broad sub-lachrymal stripe present; posterior spinous and entire soft part of dorsal fin spotted; caudal fin spotted, occasionally entirely so but more usually mainly in the upper half; pectoral and anal fin plain, except anal fin of males with a single or double row of 4-7 ocelli with a narrow clear surround; pelvic fins with outer half usually black, the leading edge of the first ray whitish (Ref. 49182). Live male specimens with ground colour dark brownish-green with a faint darker longitudinal stripe along flanks; posterior edges of flank scales with a thin iridescent blue border, silver-grey below; operculum with silver iridescence, a large brown patch in posterior half with a gold spot on it near dorsal edge; eye dark blue; top of head and snout dark brown; lips, especially lower, iridescent blue; rows of spots along flank scales maroon-red; dorsal and caudal fin spots reddish brown; anal ocelli light brownish-red, the surrounding anal fin yellowish-brown; pelvic fins with outer half black, first pelvic ray cream-white (Ref. 49182).

**Distribution:** Lakes Chilwa and Chiuta and in flowing rivers (Ref. 4983, 49182).

**Notes:**

*Chetia brevicauda* Bills & Weyl, 2002

**Common names:**

**Description:** Diagnosis: compressed and deep body with greatest body depth at origin of pelvic fins; head large, 39.4-41.0% SL; premaxillary pedicel of upper jaw slightly longer than dentigerous arm of premaxilla; sloping at an angle of 77° from horizon; dental arcade with 2 rows of closely set unicuspid teeth, 53 in outer row, 40 in inner; lower jaw relatively long with rounded dental arcade, and 2 rows of erect, slightly recurved and irregularly spaced unicuspid teeth, 37 in outer row, a few teeth in inner; 26-27 total dorsal fin rays; 12-13 total anal fin rays; pectoral fin relatively long, 25.0-28.4% SL, just reaching origin of anal fin; caudal peduncle short and deep; cycloid scales with a few weakly ctenoid scales on lower flanks; 20-22 upper and 10-12 lower lateral line scales; 6-7 scales between pelvic and pectoral fin bases; 5-7 scales between lateral line and origin of dorsal fin; 4-5 check scale rows; 15 abdominal vertebrae; 14 caudal vertebrae (Ref. 52267).

Description: snout relatively long; frontal profile straight, sometimes slightly concave; caudal fin subtruncate (Ref. 52307).

**Maximum length:** 12.5 cm SL male/unsexed (Ref. 52267).

**Colour:** living coloration unknown (Ref. 52307). Preserved material: beige background colour, pigmented brown by a series of spots and lines; anterior head pigmented; mental and opercular blotches present; 3 poorly defined and broken lines along body: midlateral, dorsal lateral and dorsal medial bands; 6-7 short and indistinct vertical bars on body; belly and ventral flank unpigmented (Ref. 52267). Freshly preserved specimens: body silvery with some brownish shades in dorsal regions; diffuse horizontal and vertical bands; several small reddish-brown dots visible at base of caudal fin and in soft dorsal fin, often also in soft anal (Ref. 52307).

**Distribution:** Lecitu River, Buzi system, in Mozambique (Ref. 52267, 52307).

**Notes:**

*Chetia brevis* Jubb, 1968

**Common names:** Orange-fringed largemouth (South Africa), Oranjerand-kurper (South Africa).

**Description:** moderately slender-bodied, with a pointed, somewhat longer snout; eyes large; frontal profile straight; caudal fin truncate to subtruncate (Ref. 52307).

**Maximum length:** 15.0 cm SL male/unsexed (Ref. 4983).

**Colour:** body olive-brown, with some shiny turquoise areas on flanks; base of scales reddish; belly pale to whitish; 8-9 dark vertical bars sometimes visible on body; reddish maculae or dots visible in dorsal and caudal fins of males, along with several red egg spots in the anal fin (Ref. 52307).

**Distribution:** Komati-Incomati River system, eastern Transvaal, South Africa and coastal lakes in Mozambique. Population threatened by pollution and water extraction. Translocated to dams in the Kruger National Park (Ref. 7248).

**Notes:**

*Chetia flaviventris* Trewavas, 1961

**Common names:** Canary kurper (FAO, South Africa), Canary largemouth (South Africa, Zimbabwe), Kanarie-grootbek (South Africa), Kanariekurper (South Africa).

**Description:** moderately slender; snout pointed; mouth large; frontal profile straight to slightly concave (Ref. 52307).

**Maximum length:** 20.0 cm TL male/unsexed (Ref. 5613).

**Colour:** body grayish-brown, with olive-green head and dorsum; belly and flanks more yellowish; adult males pale reddish-brown on throat, breast and belly and body scales with a reddish centre; reddish-brown maculae in dorsal, caudal and anal fins; several orange egg spots in pale gray anal fin; females less colourful and fairly inconspicuous with brownish coloration and pale yellow belly; color patterns typical for males usually not visible in females (Ref. 52307).

**Distribution:** Limpopo River system, Transvaal and Zimbabwe.

**Notes:**

*Coptodon rendalli* (Boulenger, 1897)

**Common names:** Carpe (Gabon), Chilunguni (Malawi), Chiunguni (Malawi), Ekouni (Gabon), Getsha (South Africa), Impaga (Rwanda), Induwe (Rwanda), Ingege y'igihwati (Rwanda), Kapa (Angola), Kayabo (Tanzania), Khundu (Angola), Mbufu (Namibia), Mpende (Zambia), Mphende (Malawi), Ngege (Kenya, Uganda, Tanzania), Ngondue (Mozambique), Noordelike rooibors-tilapia (Namibia), Northern redbreast bream (Namibia), Perege (Tanzania), Red-breasted bream (Zambia), Red-breasted tilapia (Malawi, Tanzania), Redbreast tilapia (FAO, AFS, Kenya, Malawi, Namibia, Rwanda, South Africa, Tanzania, Zimbabwe, Zambia), Rendall's redbreast tilapia (Tanzania), Rooibors-tilapia (South Africa), Rooiborskurper (South Africa), Sato (Tanzania), Tshaka (South Africa), Tshikele (Angola), Tshikwea (South Africa), Tshimbua (Angola).

**Description:** Diagnosis: A large, deep-bodied species with a steep head profile, narrow head and small mouth; often appearing brownish with a white belly, some individuals have bright red bellies

(Ref. 118638). The sexes look very similar, although males are usually larger (Ref. 118638). Very difficult to distinguish from *Coptodon zillii*, but *C. rendalli* usually have a steeper head profile and less prominent vertical bars; in East Africa, the tailfin of *C. rendalli* is often divided into a brownish upper part and yellowish lower part, whereas that of *C. zillii* is uniform and spotted (Ref. 118638).

Description: moderately deep-bodied, ovoid shaped; head relatively short; mouth small (Ref. 52307).

**Maximum length:** 45.0 cm TL male/unsexed (Ref. 26550).

**Colour:** head and body mid to dark olive-green dorsally, paling over the flanks (Ref. 4967, 34290). Body usually with vertical bars only (Ref. 4967, 34290), 6-8 on head and body (Ref. 52307). Scales with a dark basal crescent (Ref. 4967, 34290, 52307). Dorsal fin olive-green with a thin red margin and white to grey dark oblique spots on the soft rays; caudal fin spotted on dorsal half and red or yellow on ventral half (Ref. 4967, 34290). Lower lips, throat, lower parts of cheeks and opercles, breast and belly, as well as some lower parts of caudal peduncle, light to deep red (depending on behavioral situation) in most, but not all populations; anal fin reddish (Ref. 52307).

**Distribution:** from the middle Congo River basin (Kasai drainage and between the Lomami and Kisangani) up to the upper Lualaba and the Bangweulu area (Ref. 55074). Also in Lake Malawi, Zambesi, coastal areas from Zambesi Delta to Natal, Okavango and Cunene (Ref. 5163) as well as the Limpopo, Malagarasi (Ref. 55074) and Lake Tanganyika (Ref. 55074, 74387). Also present in the Cuanza and Catumbela rivers in Angola (Ref. 11970). Introduced in Lake Kivu, escaped from fish ponds (Ref. 107916). Introduced elsewhere usually for weed control and aquaculture. Several countries report adverse ecological impact after introduction.

**Notes:**

*Oreochromis andersonii* (Castelnau, 1861)

**Common names:** Driekol-tilapia (Namibia), Driekolkurper (South Africa), Kafue bream (Zambia), Njinji (Namibia, Zimbabwe, Zambia), Three spotted tilapia (FAO), Three-spotted tilapia (Kenya), Threespot tilapia (AFS, Namibia, Zimbabwe).

**Description:** Diagnosis: male genital papilla bluntly conical with a narrow flange slightly notched in the middle; jaws enlarged in breeding males, which in this species are normally not less than 30cm TL; scales in lateral line series 31-35, usually 32-33; scales of cheek in 3 full rows; vertebrae 30-32; total number of dorsal rays 28-31. Pectoral fin in adults 34-43% SL (Ref. 2), very long (Ref. 1904). Depth of body 40.5-50.5% SL; color-pattern of non-breeding fish and female always including 3 or 4 conspicuous mid-lateral blotches and a red margin on dorsal and caudal fins; breeding male with red margins broader and brighter and general dark, iridescent purplish-brown color of head, back and flanks, masking the blotches; no series of vertical spots or vertical stripes on caudal fin; nest a simple circular depression (Ref. 2).

Description: deep bodied (Ref. 12524, 13337, 52307, 54048) with a straight profile (Ref. 1887, 2989, 6465, 12524, 13337, 52307, 54048). Snout rounded (Ref. 1887, 2989). Small mouth (Ref. 12524, 13337, 13400), extending to between nostril and eye (Ref. 2989). Lower pharyngeal bone slender (Ref. 54096). Teeth slender, not densely crowded (Ref. 2, 54096), the posterior with a marked second cusp or shoulder; inferior vertebral apophysis only on third vertebra; microbranchiospines present on the outer sides of arches 2 to 4; 5-8 scales between bases of pectoral and pelvic fins; caudal fin only scaled at the base (Ref. 2). Caudal fin with 15 rays (Ref. 1904). Adult large males have the posterior rays of the dorsal fin prolonged (Ref. 12524, 13337). Pectoral fin reaching vertical of

origin of anal; pelvic fin reaching between vent and anal; caudal fin rounded; scales cycloid (Ref. 1887, 2989).

**Maximum length:** 61.0 cm TL male/unsexed (Ref. 40637).

**Colour:** body silvery-grey with upper parts of head and body darker than ventral parts (Ref. 2, 52307). Dorsal fin light green to brown (Ref. 12524, 13337). Pectoral (Ref. 1904, 12524, 13337) and pelvic fins light grey (Ref. 1904) to green; anal fin grey to green at its base (Ref. 12524, 13337). Margins of dorsal and anal fin bright red (Ref. 2, 6465, 7248, 12524, 13337, 52193, 52307). Soft portions of dorsal and anal fins with pale tips and dots (Ref. 2, 1887, 1904, 2989, 6465, 7248, 52193) that are also sometimes visible in the caudal fin (Ref. 2, 52307). 3 prominent black spots present on flanks (Ref. 2, 1887, 2989, 6465, 12524, 13337, 54048) and a black patch on the posterior portion of the gill cover (Ref. 2, 1887, 2989, 12524, 13337, 54048). The 3 body spots are usually visible from an early age (Ref. 12524, 13337), and are more pronounced in small specimens (Ref. 6465). In breeding males body and fin colours become brighter, with the red seams on the fins becoming more intense (Ref. 2, 7248, 12524, 13337, 52193, 52307) and the snout and cheeks assume a deep maroon coloration (Ref. 12524, 13337, 54048). The caudal fin may appear totally red (Ref. 52307). Juveniles silvery with 6-9 irregular thin bars on body (Ref. 6465, 7248, 12524, 13337, 52193) and 3-4 midlateral spots (Ref. 13337). Young with Tilapia-mark, which disappears or becomes part of the barred pattern of the fin at ca 7cm SL; up to ca 10cm SL vertical bars on the body may predominate and the mid-lateral spots may be faint or absent; 6-10 faint vertical bars appear in dead fish (Ref. 2).

**Distribution:** Ngami basin, Okavango River; Cunene River and Mossamedes, Angola; upper Zambezi, Kafue River; middle Zambezi, Lake Kariba and Cabora Bassa since construction of dams. Several countries report adverse ecological impact after introduction (2265). Also reported from the Kasai system in Angola (Ref. 120641). Reported as introduced in Kasanka National Park (upper Congo River basin) in Zambia (Ref. 95585).

**Notes:**

*Oreochromis macrochir* (Boulenger, 1912)

**Common names:** Akpakpodzie (Ghana), Carpe (Gabon), Cichlid (Ghana), Congo bream (Zambia), Didee (Ghana), Ekouni (Gabon), Green-head tilapia (Namibia), Green-headed bream (Zambia), Greenhead tilapia (Namibia, South Africa, Zimbabwe, Zambia), Groenkop-tilapia (Namibia, South Africa), Igihwati (Rwanda), Imu (Namibia), Ingege y'inyafurunzo (Rwanda), Keji (Angola), Khundu (Angola), Longfin tilapia (FAO, AFS, Kenya, Rwanda), Mahumbwe (Angola), Mango fish (Ghana), Mu (Zambia), Nkamba (Zambia), Pale (Zambia), Tshimbua (Angola).

**Description:** Diagnosis: head profile steep (Ref. 2, 7248, 12524, 13337, 33478, 52193, 54167) and rounded (Ref. 315, 12524). Toothed area of lower pharyngeal bone with broadly rounded lobes; scales on cheek in 2-3 rows; caudal scales variable, not on the inter-radial membranes except at the base, and never stiffening the fin (Ref. 2). Adults with black (Ref. 2, 12524) or dark brown flecks in the temporal region, on the gill-cover (Ref. 2, 11970) and below the eye, mostly associated with openings of the lateral line system (Ref. 2). Adults without conspicuous mid-lateral blotches (Ref. 2).

Description: body deep (Ref. 52307), fairly compressed (Ref. 56454), with deep caudal peduncle (Ref. 2, 52307). Snout short (Ref. 2, 52307), rounded, sometimes with concave upper profile, a little broader than long, shorter than postocular part of head (Ref. 1887, 54167). Head develops a steep profile (Ref. 2, 1887, 7248, 12524, 13337, 33478, 52193) with increasing size, especially in males

(Ref. 33478). Mouth rather small (Ref. 1887, 54167), reaching to just behind level of anterior nostril (Ref. 56454). Outer row teeth in jaw enlarged, slender, most bicuspid, inner teeth minute, tricuspid (Ref. 56454). 2-3 rows of scales on cheek (Ref. 1887, 46242, 54167, 56454), width of scaly part not greater than eye diameter (Ref. 1887, 54167). Nape scaled to level of front third of eye; eye round, its diameter almost equals interorbital width in juveniles, a little over half interorbital width in adults; pharyngeal teeth closely packed, slender (Ref. 56454). Otoliths: regular oval outline and moderately developed, rather regular ornamentation; sagittae of juveniles have an S-shaped sulcus with a distinct upward bend near the end of the cauda, often accompanied by a more or less distinct widening of this part of the cauda; sagittae ornamentation consists of more or less regular, rounded knobs (Ref. 56279). Gill-rakers short (Ref. 46242, 54167), lanceolate (Ref. 46242), thick (Ref. 54167). Vertebrae 16+14, including urostyle (Ref. 56454). Scales cycloid (Ref. 1887, 54167, 56454). 18-23 scales in upper part of lateral line (Ref. 1887, 46242, 56454), 11-14 in lower part (Ref. 1887, 11970, 56454). 12 transverse scales; 10-12 predorsal scales (Ref. 46242, 56454). Last dorsal fin spine longest (Ref. 1887, 54167, 56454). Third anal fin spine about equal to last dorsal fin spine (Ref. 56454). Pectoral fins very long (Ref. 2, 7248, 52193), reaching a vertical above some part of the anal fin base (Ref. 2, 56454), a little shorter than head (Ref. 54167). Pelvic fin shorter than pectoral fin, not quite reaching vent; caudal fin covered with small scales becoming sparser distally (Ref. 56454). Caudal peduncle as long as deep or a little deeper than long (Ref. 54167). Genital papilla large and tuberculate or scalloped in mature fishes of both sexes (Ref. 2). Bifid genital papilla without tassels in females, but in males with numerous (Ref. 33478), 2cm or longer (Ref. 2, 33478) semitransparent fringes with a knotted aspect generated by several tuberculate blobs (Ref. 33478).

**Maximum length:** 43.0 cm TL male/unsexed (Ref. 54097).

**Colour:** females and non-breeding males: body greenish, silvery or buff, with white or sometimes yellowish belly; snout, upper lip and cheeks with (blue-)green sheen; gill-covers and flanks sometimes with purplish tint; gill-cover with slight marblings and dark green or iridescent spot; forehead with a few dark specks in connection with lateral line openings; eyes with reddish tint; fins light grey, commonly with transparent or dusky end to caudal fin; tilapia-mark may be visible even in adults; some, mainly small, specimens may exhibit up to 7-8 transverse rows of spots on the caudal fin; in some, mainly stressful, situations, 7-9(10) dark vertical bars, including incomplete bars, may appear on the flanks, posteriorly from the eyes; even 1-2 horizontal stripes may appear; sexually active females show some of the male colours but to a lesser degree (a narrower red margin to the dorsal fin, without white underlining; caudal fin ends in dusky zone which may have a red hue); when spawning or mouthbrooding, females often darken partially on the lower jaw, fins, eyebar, tilapia-mark or on indistinct blotches on the flanks; a barred pattern, which includes forehead stripes, can be assumed by defensive brooding females (Ref. 33478). Breeding males: body and median fins dark grey to black with greenish or bluish hue (Ref. 2, 33478). Ventral surface can be lighter; a lighter zone runs from the snout over the top of the head and nape to the anterior part of the dorsum; on the head this light blue or green, even whitish area is dotted with numerous dark spots which may merge to a reticulum; scales on dorsum with dark centers, which extend the speckled pattern (Ref. 33478). Margins of dorsal and caudal fins red (Ref. 2, 4967, 33478, 56454) underlined posteriorly with white, or dusky in small males (Ref. 33478). Tassel-like genital papilla white (Ref. 2, 7248, 52193). Juveniles: silvery, with 6-10 thin straight vertical bars on body (Ref. 1887, 7248, 12524, 13337, 52193). Orange/yellowish fins (Ref. 7248, 12524, 13337, 52193). Caudal fin irregularly spotted centrally (Ref. 2). Preserved specimens: dark brown above, lighter below; base of scales dark, forming indistinct longitudinal streaks between the series; 8-10 dark cross-bars on body, and a faint longitudinal streak from opercle to base of caudal; dark opercular spot; vertical fins

with faint dark and light spots forming oblique streaks; tip of dorsal fin and distal extremity of anal fin whitish; a dark spot at base of anterior rays of soft dorsal; snout dark (Ref. 54167).

**Distribution:** Kafue, upper Zambezi, and Congo River systems, introduced elsewhere in Africa and in Hawaiian Islands. Also in the Okavango and Ngami region, Cunene basin, Chambezi and Bangweulu region (Ref. 5166).

**Notes:**

*Oreochromis mortimeri* (Trewavas, 1966)

**Common names:** Kariba bream (Zimbabwe), Kariba tilapia (FAO, AFS, Zimbabwe, Zambia).

**Description:** Diagnosis: jaws greatly enlarged in mature males; scales in 2-3 rows on cheek; caudal peduncle relatively shorter than in *O. mossambicus* (Ref. 2). In life greenish grey (Ref. 2), green-blue (Ref. 52307) or grey-blue with a darker spot on each scale (Ref. 2, 52307). Females and immature males often with 1-3 dark mid-lateral blotches (Ref. 2, 52307), which may appear only as the fish dies (Ref. 2). Breeding males: predominantly iridescent blue-green to bronze (Ref. 2, 52307), with iridescent spots on dorsal and caudal fins (Ref. 2), a dorsal fin with a red edge that is not as pronounced as in *O. mossambicus*, and a narrow (as opposed to wide) red band at posterior end of caudal fin (Ref. 12524, 13337).

Description: moderately deep-bodied; duckbill-shaped snout and large mouth, mostly seen in large males (Ref. 52307). Upper profile of snout concave in large breeding males; maxillary ending between nostril and eye; teeth in 3-5 series, mostly outer bicuspid, inner tricuspid; lower pharyngeal bone narrow with sides of dentigerous area concave; pharyngeal teeth fine (Ref. 2). Gill-rakers dense, slender and long (Ref. 3126). 4-6 scales between bases of pectoral and pelvic fins (Ref. 2). Caudal peduncle shorter than (Ref. 2, 52307) and coloration slightly different from *O. mossambicus* (Ref. 52307). Caudal fin occasionally with lower or both corners rounded; caudal fin not heavily scaled (Ref. 2).

**Maximum length:** 48.0 cm TL male/unsexed (Ref. 5309).

**Colour:** body dark green with occasional black specimens (Ref. 12524, 13337). Body usually white on ventral surface (Ref. 2). Lower parts of cheeks and opercles bluish (Ref. 2, 52307). 2-5 dark but rather obscure mid-lateral blotches or bands may appear (Ref. 54048, 54096), especially as the fish is dying or preserved (Ref. 54096). Dorsal and caudal fins possess red to orange margins that are normally broader and more intense in males (Ref. 2, 52307, 54048, 54096). Numerous green iridescent dots usually visible in dorsal fin (Ref. 2, 52307). Sometimes a group of shining white spots on posterior rays of dorsal and anal fin (Ref. 2, 54096). Caudal fin usually with a grey reticulum (Ref. 2, 54096) on proximal 2/3 with pale or iridescent interstices (Ref. 2). Courting males appear bright blue-green to bronze, with dorsal areas usually darkest and most intense in color; throat exhibits same coloration as body (Ref. 52307), dark grey (Ref. 54048), dark green or black (Ref. 2, 12524, 13337, 54048). Breeding male may have a red flush on the operculum and on the flanks in the vicinity of the pectoral fin (Ref. 54096); the dark opercular spot may have a metallic gold patch above and below it; the breeding female may also develop iridescence, bronzy on the flanks and bluish on the fins (Ref. 54096). Eyes yellowish; golden specimen known (Ref. 54048).

**Distribution:** Middle Zambezi and its tributaries, including Luangwa River (except probably the upper reaches of its tributaries Lunsemfwa and Mulungwishi above the escarpment), Hunyani River and

Lake Kariba (Ref. 5166). Introduced to Kipopo and the Lufira River (upper Congo River basin) in Democratic Republic of the Congo (Ref. 1978).

**Notes:**

*Oreochromis mossambicus* (Peters, 1852)

**Common names:** Bende (South Africa), Blou kurper (South Africa), Blou-kurper (South Africa), Bloukurper (South Africa), Blue bream (South Africa), Blue tilapia (South Africa), Grootbekkurper (South Africa), Khala (South Africa), Lapia (Réunion), Lapia (Seychelles), Largemouth tilapia (South Africa), Mocambique tilapia (South Africa), Mosambiek-tilapia (South Africa), Mosambiekkurper (South Africa), Mossambiekkurper (South Africa), Mozambique cichlid (old FAO name), Mozambique mouthbrooder (old AFS name), Mozambique tilapia (FAO, AFS, Kenya, Namibia, South Africa, Zimbabwe), Mphende (Malawi), Nkobue (Mozambique), Para para (Kenya), Redfin tilapia (South Africa), Rooivinkurper (South Africa), Sembaka (Madagascar), Thipende (South Africa), Tilapia del Mozambique (FAO), Tilapia mosambica (AFS), Тилапуа (Réunion, Seychelles), Tshena (South Africa), Tshikwea (South Africa), Тилапия мозамбикская (FAO).

**Description:** Diagnosis: snout long; forehead with relatively large scales, starting with 2 scales between the eyes followed by 9 scales up to the dorsal fin (Ref. 3058, 3060). Adult males develop a pointed, duckbill-like snout (Ref. 52307) due to enlarged jaws, often causing the upper profile to become concave (Ref. 2, 7248, 12524, 13337, 52307), but upper profile convex in smaller specimens (Ref. 1870, 6460). Pharyngeal teeth very fine, the dentigerous area with narrow lobes, the blade in adults longer than dentigerous area; 28-31 vertebrae; 3 anal spines; 14-20 lower gill-rakers; genital papilla of males simple or with a shallow distal notch; caudal fin not densely scaled; female and non-breeding male silvery with 2-5 mid-lateral blotches and some of a more dorsal series; breeding male black with white lower parts of head and red margins to dorsal and caudal fins (Ref. 2).

Description: moderately deep-bodied (Ref. 7248, 52307), but very variable according to food availability (Ref. 5214). Head profile straight in juveniles and females (Ref. 7248). Mouth large (Ref. 1870, 2989, 53262, 52307, 54167). Lower jaw prominent; lips thick (Ref. 3058, 3060). Maxillary ending between nostril and eye in females and immature males (Ref. 2), in breeding males (Ref. 2) mouth reaching to below anterior border of eye (Ref. 1870, 2989, 53262, 54167, 54759) or a little beyond (Ref. 1870, 2989, 53262, 54167). Eye with yellow ring around pupil (Ref. 57960). Otoliths: sulcus with nearly straight crista inferior at the transition between ostium and cauda (thus no ventralward widening of the ostium is present) (Ref. 56279). 2-3 series of scales on cheek (Ref. 2, 552, 1870, 2989, 3058, 3060, 6460, 53262, 54167). Scales cycloid (Ref. 1870, 2989, 3058, 4904, 5728, 53262, 54167). Scales on belly small, breast scales even smaller (Ref. 3058). Large scales on opercle (Ref. 1870, 53262), in 3 rows (Ref. 54759). 17-23 scales in upper part of lateral line, 10-17 in lower part (Ref. 1870, 2989, 3058, 54167). 9-12 predorsal scales (Ref. 57928). 15 precaudal vertebrae; 15-16 caudal vertebrae; 12-13 pairs of pleural ribs; 2 pairs of epineurals; 6 pairs of epipleurals; ventral vertebral apophysis on third vertebra (Ref. 57928). Gill-rakers short (Ref. 1870, 2989, 5214, 6465, 12524, 13337, 54167) and thick (Ref. 54167). Dorsal fin spines subequal from the sixth; dorsal soft rays a little longer than longest spines (Ref. 54167). Last dorsal spine the longest (Ref. 1870, 54167). Soft part of dorsal and anal fin long and pointed (Ref. 1870, 3058, 3060, 4904, 53262), especially in males (Ref. 44586). Dorsal fin with 25-28 pterygiophores (Ref. 57928). Pectoral fin (nearly) as long as head (Ref. 1870, 2989, 53262, 54167), pointed (Ref. 1870, 6460, 53262, 54759), reaching to vent (Ref. 6460, 54167) or to a little beyond origin of anal fin (Ref. 1870, 2989, 53262, 54167, 54759). 4-6 scales between bases of pectoral and pelvic fins (Ref. 2). Anal fin with 11-12 pterygiophores (Ref.

57928). Outer rays of pelvic fins slightly produced, reaching to vent (Ref. 1870, 54167) or beyond origin of anal (Ref. 1870, 2989). Caudal fin scaly in the basal half (Ref. 1870, 6460, 53262), the angles sometimes rounded (Ref. 2, 54167). Central caudal fin skeleton with 3 epurals, 5 hypurals and 2 pairs of uroneurals (Ref. 57928). No genital tassel (Ref. 55077).

**Maximum length:** 39.0 cm SL male/unsexed (Ref. 21); common length: 35.0 cm TL male/unsexed (Ref. 9987).

**Colour:** basic melanin pattern of 2 horizontal and 6-7 vertical bars never fully realized; more commonly, at least in preserved specimens, females and sexually inactive males have no bands, but may have the intersection points of the facultative bands represented by 3-4 upper and 2-5 mid-lateral blotches, or some or all of these may be present (Ref. 2). Basic body coloration silvery grey (Ref. 2, 52307) to greenish grey, sometimes a more bluish colored head (Ref. 52307). Belly greyish (Ref. 4904, 5214, 54167). Spiny part of dorsal fin light with dark mottling (Ref. 3058). Soft dorsal and anal, and caudal and pelvic fins blackish (Ref. 2989, 3058, 3060, 54167). Pectoral fins colorless (Ref. 3058, 3060). Indistinct, dark opercular spot present (Ref. 1870, 2989, 3058, 3060, 53262, 54167, 54759). Vertical fins uniform (Ref. 54167), blackish with more or less distinct whitish spots (Ref. 552) or with large or small, fused or non-fused, dark spots on a pale background (Ref. 6460, 54167), given a darker aspect to these fins (Ref. 6460). 3 black blotches present in juveniles but possibly obscured in adults due to the dark body coloration of breeding males or old adults (Ref. 12524, 13337).

Female and non-breeding male: dirty yellowish-olive (Ref. 12522) or silvery-gray, with 2-5 mid-lateral blotches and some of a more dorsal series (Ref. 2, 52307). Sometimes a series of more or less distinct spots along the side of the body above and below the upper lateral line (Ref. 54167).

Breeding male: uniform dark olive-brown (Ref. 4904, 54167), deep blue-black (Ref. 2) or black, with white lower parts of head (Ref. 2, 4904, 7248, 54167), including throat, lower lips, lower parts of cheeks and opercles, but with a dark blue to black base to the throat (Ref. 12501, 52307), and red margins to dorsal and caudal fins (Ref. 2, 7248, 12522, 12501, 12524, 13337, 52307). Dorsal fin with light coloured spots on membrane between spinous and soft rays (Ref. 12524, 13337). Caudal fin olive-green with light coloured spots on anterior section (Ref. 12524, 13337), but may sometimes appear totally red (Ref. 52307). Tip of dorsal and extremity of caudal lobes yellowish (Ref. 4904, 54167). Anal fin dark gray (Ref. 52307) or olive-green (Ref. 12524, 13337), sometimes with a thin red/orange margin (Ref. 12501, 12522, 12524, 13337, 52307). Unpaired fins normally exhibit greenish to silvery iridescent dots (Ref. 52307). Pectoral fin rays red (Ref. 2). Pectoral and pelvic fins olive-yellow (Ref. 12524).

Juveniles: body silvery (Ref. 2, 5214, 6465, 7248, 12524, 13337, 55020, 57960) or olive-brown, light on belly (Ref. 54167). Scales with dark outer edge (Ref. 54167). Usually 5-8 or more indistinct dark cross bars on body (Ref. 2, 6460, 7248, 39866, 54167, 55020), often in addition to the 2 series of blackish spots (Ref. 54167), but with no horizontal stripes (Ref. 2). Dark opercular spot (Ref. 6460, 54167), on posterior dorsal edge of operculum (Ref. 55020). Black spot at base of anterior rays of soft dorsal (Ref. 552, 54167) and 1-2 whitish spots enclosed by dark streaks (Ref. 54167). Oblique streaks (Ref. 6460) or translucent round spots (Ref. 55020) on soft dorsal. Anal dark at base with a light outer half (Ref. 54167), with oblique streaks (Ref. 6460). Caudal dark at base, light in centre, a black outer ridge (Ref. 54167), with 2-3 bars across the fin (Ref. 6460). Tilapia-spot present (Ref. 2, 5214, 6465, 12501), conspicuous in younger fish persisting albeit faintly to 8cm (Ref. 55020). Fins flesh coloured (Ref. 12524, 13337), all except soft dorsal immaculate (Ref. 55020).

**Distribution:** Lower Zambezi, Lower Shiré and coastal plains from Zambezi delta to Algoa Bay. Occurs southwards to the Brak River in the eastern Cape and in the Transvaal in the Limpopo system (Ref. 6465). Widely introduced for aquaculture, but escaped and established itself in the wild in many countries, often outcompeting local species (Ref. 12217). Several countries report adverse ecological impact after introduction.

**Notes:**

*Oreochromis niloticus* (Linnaeus, 1758)

**Common names:** Akpafiatsi (Ghana), Baringo tilapia (Kenya), Biering-pill (Chad), Bugu (Nigeria), Bulti (Sudan), Carpe (Gabon), Cichlid (Ghana), Didee (Ghana), Edward tilapia (Rwanda), Ekouni (Gabon), Epia (Nigeria), Falga (Nigeria), Garagaza (Nigeria), Gargaza (Nigeria), Gbolonu (Ghana), Gmnit (Ethiopia), Ifunu (Nigeria), Igihonda (Rwanda), Ingege y'inyamugera (Rwanda), Isake (Rwanda), Karfasa (Nigeria), Karwa (Nigeria), Koroso (Ethiopia), Kpakaru (Sudan), Logokpa (Ghana), Mahere (Uganda), Mango fish (Ghana), Mpupa (Nigeria), Ngege (Kenya, Uganda, Tanzania), Nile tilapia (FAO, AFS, Kenya, Rwanda, Tanzania, Zambia), Nsogora (Uganda), Nyamami (Kenya), Peng-pill (Chad), Perege (Tanzania), Petit lapia (Madagascar, Mauritius, Réunion), Qoroosoo (Ethiopia), Sale (Chad), Sato (Tanzania), Tegr-pere (Burkina Faso), Tilapia (Madagascar, Mauritius, Réunion), Tilapia del Nilo (FAO, AFS), Tilapia du Nil (Madagascar, Mauritius, Réunion), Tome (Nigeria), Tsokungi (Nigeria), Тѐбенфин (Burkina Faso), Uganda (Uganda), Ukuobu (Nigeria), Wass (Senegal), Zogora (Uganda), Тилапия нильская (FAO).

**Description:** Diagnosis: A large deep-bodied tilapia, with a relatively small head (Ref. 118638). Jaws of mature male not greatly enlarged, length of lower jaw 29-37% of head length; genital papilla of breeding male not tassellated (Ref. 2). Most distinguishing characteristic is the presence of regular vertical stripes throughout depth of caudal fin (Ref. 4967, 53405); at all life stages, the tailfin is marked with numerous thin vertical stripes; in smaller fishes, these are relatively wide and form an arc, and start at the base of the tailfin (Ref. 118638). Males are bluish pink, sometimes with a dark throat, belly, anal and pelvic fins; females are usually brownish, silvery/white beneath with around 10 thin vertical bars (Ref. 118638).

Description: Lower pharyngeal bone longer than broad, its anterior part longer than toothed part; outer jaw teeth bicuspid, inner jaw teeth tricuspid, posterior pharyngeal teeth bicuspid and stout; 3-4 rows of teeth in jaws (3-5, rarely 6, in specimens over 200 mm SL); micro-gillrakers present; scales cycloid (Ref. 53405).

**Maximum length:** 60.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Margin of dorsal fin grey or black; vertical bars in caudal fin 7-12 (Ref. 2). Regular black cross bars on caudal fin; ground colour greyish, relatively dark in adults; back olivaceous-green, sides paler, with 6-9 rather indistinct cross bars; belly whitish; upper lip pale green or white, lower lip white; dorsal and anal fins greyish, sometimes with very narrow red margin, soft part of fin with vertical lines (or with aligned light spots resembling striped pattern); pelvic fins grey, pectorals transparent; "tilapian" spot lacking in adults but very distinct in fingerlings which also have more distinct cross bars and very prominent black spot on upper part of caudal peduncle; throat, belly and unpaired fins black in mature males (Ref. 53405).

**Distribution:** Africa: naturally occurring in coastal rivers of Israel (Ref. 5166), Nile basin (including lake Albert, Edward and Tana), Jebel Marra, Lake Kivu, Lake Tanganyika, Awash River, various

Ethiopian lakes, Omo River system, Lake Turkana, Suguta River and Lake Baringo (Ref. 2). In West Africa natural distribution covers the basins of the Senegal, Gambia, Volta, Niger, Benue and Chad, with introduced specimens reported from various coastal basins (Ref. 53405). Widely introduced for aquaculture, with many existing strains. Several countries report adverse ecological impact after introduction. The following subspecies were previously recognized: *Oreochromis niloticus baringoensis*, *Oreochromis niloticus cancellatus*, *Oreochromis niloticus eduardianus*, *Oreochromis niloticus filoa*, *Oreochromis niloticus niloticus*, *Oreochromis niloticus sugutae*, *Oreochromis niloticus tana* and *Oreochromis niloticus vulcani*.

**Notes:**

*Oreochromis placidus* (Trewavas, 1941)

**Common names:** Black tilapia (FAO, AFS, Zimbabwe), Mphende (Malawi), Nkobue (Mozambique).

**Description:** Description: Deep bodied with straight predorsal profile, mature males with concave profile, extended soft dorsal and anal fins (Ref. 52193). Gill rakers on lower limb of first gill arch 16-20 (Ref. 2, 52193). Dorsal fin with 16-18 spines and 10-13 soft rays; anal fin with 3-4 spines and 8-11 soft rays (Ref. 2, 52193). Lateral line scales 30-32 (Ref. 52193).

**Maximum length:** 35.5 cm TL male/unsexed (Ref. 2).

**Colour:** Adults olive brown above, silvery below, with sooty grey head and fins; red margin to dorsal fin (Ref. 52193). Juveniles silvery with 8-9 faint vertical bars; soft dorsal, anal and caudal fins with dark streaks and light spots (Ref. 52193). Breeding males are very dark grey on head and body with throat and all fins black; with a red or orange margin on the dorsal and grey or black marblings on the gill-cover (Ref. 2, 52193).

**Distribution:** Lower Zambezi and southwards in the lower parts of the Sabi, Lundi, Pungwe and Buzi Rivers (Ref. 5166); also Ruvuma River on the Tanzanian-Mozambique border; Lake Rutumba, Lupululu system, and the Lupuledi west of Lindi (Ref. 5166). Previously, two subspecies were recognized: *Oreochromis placidus placidus* and *Oreochromis placidus ruvumae*.

**Notes:**

*Oreochromis shiranus* Boulenger, 1897

**Common names:** Fwilili (Malawi), Katakuzi (Tanzania), Makumbwa (Tanzania), Mphende (Malawi), Shire tilapia (Tanzania), Tilapia shiranus (FAO)

**Description:** Diagnosis: A large, deep-bodied species with 4, rarely 3 or 5, anal fin spines (Ref. 118638). Females and immatures from the Lake Malawi catchment have a dark olive-coloured body, yellow-gold below; other populations, such as those from Lakes Chilwa and Chiuta and the Ruvuma system show a more silvery colour; unusually for *Oreochromis*, the horizontal stripes are often more prominent than the vertical bars; adult males develop very large jaws and a concave head profile, they are black, with red margins to the dorsal and caudal fins (Ref. 118638). Underwater or in aquaria, males show numerous white spots on the upper half of the flanks, but these fade quickly under stress, so that they appear uniformly black when removed from the water (Ref. 118638).

Description: Jaws enlarged in big mature males, but outer teeth mostly remaining bicuspid (Ref. 2). Length of pharyngeal bone from a little less to a little more than its width; blade 0.8-1.26 length of

toothed area; teeth slender and firm (Ref. 2). Usually IV anal spines, rarely III or V; caudal fin scaly, but less densely than in the *Oreochromis squamipinnis* group (Ref. 2). Scales in lateral line series 31-33; 3.5-4 between origin of dorsal and lateral line, 4-7 between bases of pectoral and pelvic fins; in 2-3 rows on the cheek (Ref. 2). Lower gill rakers 16-21, usually 17-19 (Ref. 2). Vertebrae 29-30 (Ref. 2). Genital papilla of male simple (Ref. 2).

**Maximum length:** 39.0 cm SL male/unsexed (Ref. 21).

**Colour:** Breeding male becoming very dark to black, but not with white lower parts of head (Ref. 2).

Adults yellowish silvery, greenish on back. Breeding males darker and iridescent, with black lower parts of head, throat and belly and dusky lower fins but with no yellow coloring. Ripe females also becoming more dusky, with the red of the caudal fin intensified. Genital papilla white in both sexes (Ref. 2).

**Distribution:** Two subspecies are recognized: *Oreochromis shiranus shiranus* from Shiré River above the Murchison rapids and Lake Malawi, together with their tributaries in Tanzania, Malawi and Mozambique (Ref. 5166, 118630); *Oreochromis shiranus chilwae* from Lake Chilwa and its basin in Malawi and Mozambique (Ref. 5166, 118638).

**Notes:**

#### *Oreochromis spilurus* (Günther, 1894)

**Common names:** Kiparapara (Kenya), Ntuku (Kenya), Para para (Kenya), Sabaki tilapia (FAO, Kenya, Tanzania).

**Description:** Description: Scales on cheek in 2 or 3 series (Ref. 2). Genital papilla of male conical or club-shaped, with a sub-terminal pore (Ref. 2).

**Maximum length:** 19.2 cm SL male/unsexed (Ref. 2); 16.3 cm (female).

**Colour:** Females and immature males have a yellow-buff background colour with a series of mid-lateral blotches and a more dorsal parallel series (Ref. 2). Mature males golden-yellow; conspicuous bright blue areas on dorsal, anal and pelvic fins; orange or red dorsal lappets (Ref. 2).

**Distribution:** Africa: Coastal rivers of Kenya from the Mwena River to the lower Athi below Lugard's Falls; also near its mouth, including Lake Chem Chem; Lower and middle Tana River, Northern Uaso Nyiro, Juba system and Webi Shebeli; Nguruman; and Ethiopia (Ref. 5166). Probably also in Lake Momello, south of the Kenya-Tanzania border (Ref. 5166, 118638). Three subspecies are recognized: *Oreochromis spilurus niger*, *Oreochromis spilurus percivali* and *Oreochromis spilurus spilurus*.

**Notes:**

#### *Pharyngochromis acuticeps* (Steindachner, 1866)

**Common names:** Zambesi-kurper (South Africa), Zambezi bream (South Africa), Zambezi dream (Namibia), Zambezi happy (Namibia, South Africa).

**Description:** moderately deep-bodied; head and mouth large; frontal profile straight to slightly rounded, sometimes with a small interruption at eye level; caudal fin rounded to subtruncate (Ref. 52307).

**Maximum length:** 12.0 cm TL male/unsexed (Ref. 4983).

**Colour:** body brown in both sexes, sometimes with dark vertical bars; centers of body scales reddish; iridescent greenish flush often visible in lower body parts, especially in males; in males, posterior portion of dorsal fin, along with anterior portion of caudal fin, with some reddish to brownish dots; additionally, males with several orange-outlined, yellow egg spots in anal fin (Ref. 52307).

**Distribution:** Zambezi River system in Zambia, Zimbabwe (Ref. 4983, 47334, 97232) and Angola (Ref. 120641), the Save-Runde system (Ref. 47334), Kunene (Ref. 120641), Okavango and Quanza River in Angola (Ref. 47334, 120641). The types of the species are from an unknown locality in Angola (Ref. 4983, 47334).

**Notes:**

### *Pseudocrenilabrus philander* (Weber, 1897)

**Common names:** Chikolwa (Zambia), Chikundu (Zambia), Dahambanzhe (South Africa), Dwarf bream (Zambia), Fakaroni (South Africa), Jafrou (South Africa), Kambanda (Namibia), Makumba (Malawi), Nkakafodya (Malawi), Southern mouthbrooder (Namibia, South Africa, Tanzania, Zimbabwe, Zambia), Suidelike mondbroeier (Namibia, South Africa), Suli (Mozambique).

**Description:** Description: Body stout; mouth small, horizontal (Ref. 52193). Dorsal fin with 13-16 spines and 9-11 soft rays; anal fin with 3 spines and 7-9 soft rays; pectoral fin short and rounded; caudal fin strongly rounded (Ref. 4967, 52193). Lateral line scales 26-31, chest scales not sharply differentiated from body scales (Ref. 4967, 52193).

**Maximum length:** 13.0 cm TL male/unsexed (Ref. 52193).

**Colour:** Females are light brown with black vertical bars and light yellowish fins (Ref. 52193). Male colours differ with locality; body usually a mesh of iridescent light blue and yellow, with an oblique bar through the eye and iridescent blue lower jaw; dorsal fin has a red tip, black submarginal band and iridescent blue blocks, pelvics black, caudal and anal fins have iridescent blue and red blocks, anal with orange tip; colours are accentuated during breeding (Ref. 52193).

**Distribution:** from the Orange River system and southern KwaZulu-Natal northwards throughout southern Africa, extending to southern Congo basin tributaries (Ref. 7248, 52193) and lagoons and rivers associated with Lake Malawi, but not the lake itself (Ref. 55954). Also in Lake Rukwa (Ref. 27292). Three subspecies are recognized: *Pseudocrenilabrus philander dispersus*, *Pseudocrenilabrus philander luebberti* and *Pseudocrenilabrus philander philander*.

**Notes:**

### *Sargochromis codringtonii* (Boulenger, 1908)

**Common names:** Green dream (Namibia), Green happy (Namibia, South Africa, Zimbabwe, Zambia), Groen happie (Namibia), Groen-happie (South Africa), Imbuma (Namibia), Mbilia (Zambia).

**Description:** deep-bodied; resembles *S. carlottae* but has a longer and more pointed snout; frontal profile straight to slightly concave; caudal fin rounded (Ref. 52307).

**Maximum length:** 39.0 cm TL male/unsexed (Ref. 5309).

**Colour:** snout, front, back and sides of body olive, belly light green; scales on dorsum often with a rusty brown spot at centre; cheeks and opercles greenish to bluish; fins light to medium green (Ref. 52307). Adult males: colors more intense when courting; head and pelvic fins often turn dark blue, while posterior edge of caudal fin becomes reddish; soft dorsal and anal fin portions with many orange dots, better developed in the latter; several rows of brownish maculae may be present in the caudal fin (Ref. 52307).

**Distribution:** Okovango River system, upper and middle Zambezi River system, Kafue River (Angola, Namibia, Botswana, Zambia and Zimbabwe)(Ref. 7248). Also reported from the Kunene (Ref. 120641).

**Notes:**

### *Serranochromis meridianus* Jubb, 1967

**Common names:** Laeveld-kurper (South Africa), Lowveld largemouth (South Africa).

**Description:** relatively deep-bodied; head large and massive; eyes relatively small; frontal profile concave; caudal fin slightly rounded to subtruncate (Ref. 52307).

**Maximum length:** 37.0 cm TL male/unsexed (Ref. 5693).

**Colour:** body of both sexes pale brown to ochre, with belly region pale to whitish, as are cheeks and opercles; body scales with reddish base, more intense in males; males with numerous reddish dots or maculae in dorsal and caudal fins, along with several large, yellowish egg spots in anal fin (Ref. 52307).

**Distribution:** Sabie-Sand tributaries, Incomati River system, Transvaal; coastal pans between Incomati and Limpopo Rivers, Mozambique; Mgobezeleni Lake, Natal. Introduced to impoundments in the Kruger National Park (Ref. 7248). Threatened by depleted water supplies, sedimentation, pollution and invasive plants (Ref. 7248).

**Notes:**

### *Tilapia sparrmanii* Smith, 1840

**Common names:** Banded bream (Tanzania, Zambia), Banded tilapia (FAO, AFS, Namibia, South Africa, Tanzania, Zimbabwe), Chituku (Zambia), Ghetla (South Africa), Katwa (Angola), Khundu (Angola), Liumbwe (Angola), Makumba (Malawi), Matshakala (Angola), Matuku (Zambia), Mbowo (Angola), Situhu (Namibia), Thoho (Angola), Thundwa (Angola), Tsha wamba (Angola), Tshikele (Angola), Tshikwea (South Africa), Tshimbua (Angola), Tshinganda (Angola), Vlei-kurper (South Africa), Vlei-tilapia (Namibia, South Africa), Vleikurper (South Africa).

**Description:** Diagnosis: A small, deep-bodied species with a narrow head and small strong jaws (Ref. 118638). Often appearing a rich deep yellow with wide dark brown bands, and red/orange fin margins; mature adults are very dark with prominent black stripes and a patch of scarlet scales behind the head (Ref. 118638).

Description: Moderately deep-bodied; head small; frontal profile rounded to steep; caudal fin rounded (Ref. 52307).

**Maximum length:** 23.5 cm TL male/unsexed (Ref. 27292).

**Colour:** Body grayish-brown to bronze; sometimes with 7-8 dark vertical bars, more prominent in dorsal body parts, may be visible; dorsal fin often reddish-brown with an iridescent bluish flush in its upper parts and outlined in red, and some dark stripes in soft portion; caudal fin essentially unmarked, although in males there may occasionally be some bluish spots; outermost region anal fin fairly dark, with some pale spots at its base; pelvic fin rays may become moderately elongated and have a pale reddish-brown anterior edge (Ref. 52307).

**Distribution:** middle Congo River basin in the Kwilu (Ref. 11970), Kwango, Kasai drainage (Ref. 11970, 55074) and Lomami (Ref. 106245); upper Congo River basin including the Lualaba, upper Lualaba, Lufira, Upemba region, Luvua, Lake Mweru, Luapula (Ref. 55074) and Bangweulu (Ref. 5163, 95585); Cunene, Okavango, Lake Ngami, Zambezi, Limpopo, northern tributaries of the Orange River (Ref. 5163, 11970), Cuvelai (Ref. 120641), upper Cuanza, Sabi, Lundi and Lake Malawi (Ref. 5163).

**Notes:**

## Clariidae

### *Clarias gariepinus* (Burchell, 1822)

**Common names:** Abu shanab (Sudan), Ambaazaa (Ethiopia), Ambaza (Ethiopia), Andouma (Gabon), Arira (Nigeria), Aro (Nigeria), Attek (Sudan), Balbout (Chad), Baleewu (Senegal), Bambara (Senegal), Bavhuri (South Africa), Betakay (Ethiopia), Betekay (Uganda), Bokalo (Congo Dem Rp), Bombe (Malawi), Bomu (Malawi), Bwituka (Malawi), Chibomu (Malawi), Cik (Sudan), Cogo (Sudan), Common catfish (Kenya, Rwanda, Tanzania), Dera (Kenya), Ejengi (Nigeria), Eysisombi (Uganda), Fihi (Congo Dem Rp), Garmut (Sudan), Gol (Chad), Gwol (Chad), Harlei (Sierra Leone), Hartei (Sierra Leone), Ifiki (Congo Dem Rp), Ifutoli (Congo Dem Rp), Ikakalo (Congo Dem Rp), Imunu (Nigeria), Inkube (Rwanda), Ishonzi (Rwanda), Isombi (Rwanda), Kabambare (Rwanda), Kambale (Tanzania), Kambale Mumi (Tanzania), Kambali (Kenya, Tanzania), Kamongo (Rwanda), Karmut (Egypt), Kemudu (Nigeria), Key asa (Ethiopia), Kopito (Kenya), Kor (Sudan), Lokate (Kenya), Macharufu (Kenya), Male (Uganda), Mangwana (Namibia), Mburi (Angola), Mlamba (Malawi), Mlamba (Tanzania), Mudfish (Kenya, Rwanda), Mulonge (Zambia), Mumi (Kenya, Tanzania), Muta (Zambia), Ndombe (Zambia), Ndombe-Mbundamusheke (Namibia), Nisu (Kenya), North African catfish (FAO), Nsomba (Mozambique), Obito (Kenya), Ongala (Kenya), Pet cick (Sudan), Pet der (Sudan), Pez-gato (FAO), Poisson-chat nord-africain (FAO), Sharptooth catfish (AFS, Kenya, Lesotho, Malawi, Namibia, Rwanda, South Africa, Tanzania, Zimbabwe, Zambia), Silure (Gabon), Singre (Kenya), Singri (Kenya), Skerptand-baber (Namibia, South Africa), Skerptandbaber (South Africa), Sombi (Kenya), T-nima (Sierra Leone), Talage (Senegal), Tarwada (Nigeria), Thamba (Sierra Leone), Toucouleurs (Senegal), Tukpe (Sudan), Umihenzi (Rwanda), Vere (Chad), Vering (Chad), Yess (Senegal), Сом клариевый африканский (FAO), فُترة إفريقيا الشمالية (FAO), 尖齿胡鲶 (FAO).

**Description:** Diagnosis: body depth 6-8 times in standard length, head 3-3,5 times (Ref. 34290). Head somewhat between rectangular and pointed in dorsal outline; snout broadly rounded; eyes supero-lateral and relatively small (Ref. 248). Teeth on premaxilla and lower jaw small, fine and arranged in several rows; nasal barbels 1/5-1/2 times as long as head in fishes longer than 12 cm, and 1/2-4/5 of head length in smaller individuals; maxillary barbels rarely shorter than head, usually somewhat longer and reaching to a point midway between origin of dorsal fin and insertion of pelvic fins; outer mandibular barbel longer than inner pair (Ref. 34290). Postorbital bones in contact; lower part of head with 2 black, lateral bands (Ref. 81644). Contrary to other *Clarias* species, *Clarias gariepinus* has a high number of gill rakers varying from 24-110 (Ref. 248, 34290, 81644, 101841), the number increasing with size of the fish; gill rakers long, slender and closely set (Ref. 248, 34290). Distance between occipital process and base of dorsal fin is short; dorsal fin almost reaches caudal fin; anal fin origin closer to caudal fin base than to snout, nearly reaching caudal fin; pelvic fin closer to snout than to caudal fin base; pectoral fin extends from operculum to below 1st dorsal fin rays (Ref. 248). Pectoral spine robust (Ref. 248), serrated only on its outer face (Ref. 248, 81644), the number of serrations increasing with age (Ref. 248). Lateral line appears as a small, white line from posterior end of head to middle of caudal fin base; openings to secondary sensory canals clearly marked (Ref. 248).

Description: head large, mean 30.8% SL; frontal fontanel long and narrow; distance between end of dorsal fin and caudal fin short (0.0-7.6% SL, mean 4.3)(Ref. 81644).

**Maximum length:** 170 cm TL male/unsexed (Ref. 40637); common length: 90.0 cm NG male/unsexed (Ref. 34290).

**Colour:** 2 colour patterns can be discerned: uniform and marbled pattern; in uniform pattern, dorsal surface and flanks of body and dorsal parts of pectoral and pelvic fins are generally dark greyish-greenish black, while belly and ventral parts of paired fins are lightly coloured; in marbled pattern, specimens show irregular dark blotches on light coloured background above and laterally, belly and ventral parts of the paired fins are whitish (Ref. 248, 81644). Most specimens show pigmentation bands on both sides of lower surface of head (Ref. 248, 81644), but these might be absent (Ref. 101841). A series of light and dark bands may occur on caudal fin; proximal third of caudal fin lightly coloured while other part is dark; occasionally, irregular black spots may occur on caudal fin (Ref. 248). Never an irregular pattern of small white spots on body (Ref. 101841).

**Distribution:** almost Pan-African (Ref. 107916), absent from Maghreb, the Upper and (most of the) Lower Guinea and the Cape province and probably also Nugal province. Asia: Jordan, Israel, Lebanon, Syria and southern Turkey. Widely introduced to other parts of Africa, Europe and Asia. Several countries report adverse ecological impact after introduction.

**Notes:**

### *Clarias ngamensis* Castelnau, 1861

**Common names:** Akabukula (Zambia), Blunt-toothed African catfish (FAO), Blunttooth catfish (Namibia, South Africa, Zimbabwe), Chikanu (Malawi), Clarid catfish (Malawi), Mburi (Angola), Mlamba (Malawi), Mulonfi (Zambia), Ndombe-Stama Nkoma (Namibia), Nkosi (Zambia), Nsomba (Mozambique), Stomptand-baber (Namibia, South Africa), Stomptandbaber (South Africa), 钝齿胡鲶 (FAO).

**Description:** Diagnosis: Characterized by a relatively long vomerine tooth plate (5.9-14.4% of head length) and by a relatively short adipose fin (5.9-12.5% of standard length), the length of which is a specific character of *Clarias ngamensis*; head oval to rectangular in dorsal outline; frontal fontanelle long and narrow ('knife-shaped'); occipital fontanelle small and oval-shaped; pectoral spine robust and slightly curved; the suprabranchial organ consists of well developed arborescent structures (Ref. 248). Distinguished from *Clarias gariepinus* by having a short adipose fin behind the rayed dorsal and an ovoid vomerine toothplate with granular or blunt teeth (Ref. 52193).

Description: Dorsal fin with 56-62 rays; anal fin with 50-58 rays; pectoral spines barbed along outer edge only (Ref. 52193). Gill rakers short and widely spaced, 18-32 on first gill arch; accessory suprabranchial airbreathing organ well developed (Ref. 52193).

**Maximum length:** 73.0 cm TL male/unsexed (Ref. 52193).

**Colour:** Colour variable, grey or dark brown, often marbled, with cream or whitish underside to head and abdomen (Ref. 52193).

**Distribution:** Quanza, Cunene, Okavango, Chobe, Lake Ngami, upper Zambezi (above Victoria Falls), Kafue, Lake Malawi, upper Lualaba, Luapula, Lakes Moero and Bangweulu, Pungwe, Buzi, Save, Limpopo, Incomati, lower Pongolo and lower Sabi/Lundi system (Ref. 248). Also reported from the lower Shire (Ref. 7248, 52193).

**Notes:**

### *Clarias theodorae* Weber, 1897

**Common names:** Kambangaji (Angola), Kaminga (Namibia), Minga (Zambia), Mlamba (Malawi), Mulomfi (Zambia), Mulonfi (Zambia), Musonji (Angola), Ndombe-Kakokwe (Namibia), Ngola (Mozambique), Slang-baber (South Africa), Slangbaber (Namibia, South Africa), Snake catfish (FAO, Namibia, South Africa, Zimbabwe, Zambia), Tshimbua (Angola), Tshota mualwa (Angola).

**Description:** Diagnosis: Head rectangular in dorsal outline; snout broadly rounded; eyes dorsally located; frontal fontanelle 'knife-shaped'; occipital fontanelle very long and oval-shaped; the 'dermosphenotic' and supraorbital bones become joined in specimens of 80-90 mm standard length; tooth plates relatively small; dorsal and anal fins not confluent with caudal fins; gill rakers relatively long, slender and distantly set; openings of the secondary sensory canals arranged in regular pattern on the flanks (Ref. 248). Characterised by a relatively small, short head, 4-5 times in standard length, long barbels reaching to behind the head, and an elongated slender body with a long anal fin (Ref. 52193).

Description: Dorsal fin with 71-94 rays; anal fin with 60-89 rays; pectoral fin spine with barbs along outer and inner edges; origin of anal fin nearer tip of snout than base of caudal fin (Ref. 52193). Gill rakers spaced, 13-19 on first gill arch; suprabranchial organ reduced, not filling chamber, with thick stubby branches (Ref. 52193).

**Maximum length:** 35.0 cm TL male/unsexed (Ref. 52193).

**Colour:** Usually mottled, black or dark brown; lateral line may be marked in white (Ref. 52193).

**Distribution:** Zambezi, Kafue and Shire Rivers; Upper Congo system; Lakes Tanganyika, Bangweulu, Kobo, Niumbe, Mweru and Malawi; Chobe, Okavango and Cunene Rivers; Pungwe, Sabi, Lundi Rivers and Zimbabwean tributaries of the Limpopo River; Incomati, Pongolo and Umgeni rivers and Lake Sibaya in Natal and Transvaal tributaries of the Limpopo (Ref. 3820). Also in the middle Congo (Ref. 106245), including the Ubangi (Ref. 248) and several southern tributaries of the Kasai (Ref. 248, 11970) and in the Cuanza in Angola (Ref. 120641).

#### **Notes:**

### *Heterobranchus longifilis* Valenciennes, 1840

**Common names:** Aso (Nigeria), Azu isii (Nigeria), Biblique (Senegal), Catfish (Ghana), Coro (Sudan), Cur (Sudan), Denor (Ghana), Fusan (Nigeria), Giyoko (Burkina Faso), Isu (Congo Dem Rp), Kairo (Nigeria), Labe (Kenya), Lenda (Angola), Lifo (Congo Dem Rp), Lifonde (Congo Dem Rp), Ngaru (Sudan), Nhumi (Mozambique), Pondo (Congo Dem Rp), Pondo (Tanzania), Ramboshi (Nigeria), Sampa (FAO, AFS, Zambia), Seega (Burkina Faso), Su (Congo Dem Rp), Sumi (Congo Dem Rp), Surta (Sudan), Toruye (Nigeria), Tshota mualwa (Angola), Vundu (Kenya, Malawi, South Africa, Tanzania, Zimbabwe, Zambia), Wonyi (Ghana), 长丝异鳃鲶 (FAO).

**Description:** Diagnosis: length of rayed dorsal fin 27-36% standard length; 26-35 dorsal-fin rays; length of adipose fin 24-34% standard length; width of vomerine tooth plate 25.0-32.2%, and width of premaxillary tooth plate 29.5-36.9% head length (Ref. 57129, 81644). Pectoral spine with strong, downward-pointed serrations on the anterior side (Ref. 270, 57129, 81644). Length of pectoral fin 12.7-18.0% SL (mean 16) (Ref. 81644). Posterior part of adipose fin blackish (Ref. 4967, 57129). Caudal fin with a whitish cross-bar (Ref. 57129). Head long, broad and somewhat rectangular in dorsal outline (Ref. 270), its length 28.4-35.9% SL (Ref. 81644). Snout broadly rounded; eyes

superolateral in position; frontal fontanelle long and narrow; occipital fontanelle oval-shaped; tooth plates wide; suprabranchial organ well developed; caudal fin barred; openings of secondary canals hardly visible but display a regular pattern (Ref. 270).

**Maximum length:** 150 cm SL male/unsexed (Ref. 4967).

**Colour:** preserved specimens: grey, greyish-brown to dark brown on back and sides, and pale brown to whitish on belly; some individuals marbled, particularly on posterior part of body; caudal fin often crossed by several vertical bars, one of which is whitish, hind margin of fin often white-edged; posterior part of adipose fin darker than anterior part (Ref. 57129, 81644).

**Distribution:** Nile, Congo system, upper and middle Zambezi (Ref. 3820). Reported from Lake Rukwa and the lower Zambezi (Ref. 95585). Also from Lakes Tanganyika and Edward (Ref. 7248). In West Africa known from the Gambia, Upper Senegal, Niger, Benue, Lake Chad, Volta, and coastal basins from Guinea to Nigeria, including the delta of Niger and the Cross river (Ref. 57129). In Lower Guinea present in the Cross and Sanaga in Cameroon and the Ogoe in Gabon (Ref. 81644).

**Notes:**

## Claroteidae

### *Chrysichthys hildae* Bell-Cross, 1973

**Common names:** Buzi-baber (South Africa), Hilda's grunter (FAO, South Africa).

**Description:** Description: Head flat below with a wide snout; mouth ventral, wide, with a broad band of fine sharp teeth; 4 pairs of slender barbels, including short nasals, maxillaries longest; eyes large, lateral (Ref. 52193). Dorsal fin with 1 spine and 6 soft rays; anal fin with 2 unbranched and 7 branched rays; dorsal spine without serrations, pectoral spines serrated along inner edge only, adipose fin short, caudal fin forked (Ref. 52193).

**Maximum length:** 11.8 cm SL male/unsexed (Ref. 52193).

**Colour:** Olive grey with off-white abdomen (Ref. 52193).

**Distribution:** lower reaches of Buzi River in Mozambique (Ref. 7248, 52193).

**Notes:**

### *Parauchenoglanis ngamensis* (Boulenger, 1911)

**Common names:** Bibonga ya Kajama (Angola), Lumbungo (Angola), Lwasa (Angola), Siabela (Namibia), Sibutu (Zambia), Tshikanda (Angola), Tshinganda (Angola), Tshingondola (Angola), Zambesi-knorbaber (Namibia, South Africa), Zambezi grunter (Namibia, South Africa, Zimbabwe).

**Description:** Description: Head large, moderately depressed and pointed; mouth with fleshy lips, fine bristle-like teeth on a small square pad in upper jaw and along lower jaw, and 3 pairs of thick-based barbels of which the outer mandibular is longest; nostrils widely separated, anterior openings small tubes from upper lip, posterior simple slits (Ref. 52193). Dorsal fin with 1 spine and 7 soft rays; anal fin with 4-5 unbranched and 8-9 branched rays; dorsal and pectoral fins with a strong spine, dorsal spine weakly serrated, pectoral spines serrated along inner edge only; adipose fin large, extends from behind dorsal to caudal peduncle; caudal fin rounded (Ref. 52193).

**Maximum length:** 38.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Yellow-brown with scattered black spots and 5-7 vertical lines of black spots along body, fins spotted (Ref. 52193).

**Distribution:** Kasai River drainage (middle Congo River basin), upper Zambezi and Okavango (Ref. 52193, 78218, 79566). Specimens from the Kasai possibly belong to a different species (Ref. 78218).

**Notes:**

## Clupeidae

### *Gilchristella aestuaria* (Gilchrist, 1913)

**Common names:** Estuarine round-herring (South Africa), Gilchrist's round herring (FAO), Rivier-rondeharing (South Africa), Whitebait (South Africa), Witaas (South Africa).

**Description:** Diagnosis: Body rather compressed, belly rounded, with 6 to 9 thin unkeeled pre-pelvic scutes followed by an equally thin pelvic scute, all with slender ascending arms; no post-pelvic scutes; snout pointed, lower jaw a little prominent, with a single row of fine teeth in each jaw; posterior supra-maxilla paddle-shaped; gillrakers 39 to 76, gillrakers small but present on posterior face of third epibranchial; pelvic fin with i-7 finrays, under or a little before dorsal fin origin (Ref. 188). Resembles *Spratelloides* species or juvenile *Etrumeus* and *Dussumieria*, but pre-pelvic scutes present; other clupeids occurring in same area have keeled pre-pelvic and post-pelvic scutes (Ref. 188).

Description: Body compressed, fusiform; belly rounded; fins short, pectorals low on body, pelvics before dorsal, anal long-based, caudal forked (Ref. 3259; 7248, 52193). Mouth upturned, eyes large (Ref. 7248, 52193). Upper jaw rounded when seen from front (Ref. 188). Lower gillrakers apparently highly variable, 39-76 (Ref. 3259, 118219). Dorsal fin with 3 unbranched and 11-12 branched rays; anal fin with 3 unbranched and 17 branched rays; pectoral fin with 1 unbranched and 10-11 branched rays; pelvic fin with 1 unbranched and 7 branched rays; pelvic fin base in front of dorsal fin base; pelvic fin reaching more than halfway to anus (Ref. 3259, 7248, 52193). Scales light and easily shed, about 40 in longitudinal series; transverse scales 9-10 (Ref. 7248, 52193, 118219). Belly with 6-9 thin scutes before pelvic fin, only visible when belly scales removed and surface dried; no post-pelvic scutes (Ref. 3259).

**Maximum length:** 9.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Silvery; top and sides of head and body thickly sprinkled with black dots; brilliant silver lateral stripe, on hind part of side; back dark (Ref. 3259, 36031). In alcohol: a uniform light brown with a faint midlateral silvery band; individual bases of dorsal and anal rays black pigmented; two short dark pigment lines at base of anal, one almost horizontal along upper border, the other oblique on lower border (Ref. 118219)

**Distribution:** Lake Piti, Mozambique, along south and east coasts of South Africa to Saldanha Bay (Ref. 188, 3509), and as far north as the Olifants River on the west coast (Ref. 7248), possibly to mouth of Orange River (Ref. 188, 3259). Also reported from Madagascar (Ref. 3509, 13333), but its presence is not confirmed; it is probably based on confusion with *Sauvagella madagascariensis*, while *Gilchristella aestuaria* does not occur in Madagascar (Ref. 33664). Reported occurrence in India (Ref. 32693) is of dubious validity (Ref. 33664). Currently a single species, but at least two forms, possibly different species, are known (Ref. 52193).

**Notes:**

### *Limnothrissa miodon* (Boulenger, 1906)

**Common names:** Agahuza (Rwanda), Chisamba (Zambia), Daga (Congo Dem Rp, Tanzania), Indagara (Rwanda), Isambaza (Rwanda), Kapenta (South Africa, Zambia), Karumba (Rwanda), Lake Tanganyika sardine (FAO, Rwanda, South Africa, Zimbabwe), Lumbo (Zambia), Lumbu (Congo Dem Rp, Tanzania), Lumpu (Burundi, Congo Dem Rp), Ndagaa (Tanzania), Ndagala (Burundi), Ndakala (Congo Dem Rp),

Nsembe (Zambia), Stapper's sprat (old FAO name), Tanganikameer-sardyn (South Africa), Tanganyikan anchoveta (Zambia), Tanjanikameer sardyn (South Africa), Yorogo (Rwanda).

**Description:** Diagnosis: Body fairly slender, depth about 22-24% of standard length; pre-pelvic scutes not strongly keeled, beginning behind base of last pectoral fin ray; maxilla blade over 4 times as long as its shaft, its lower toothed edge continued forward to meet hind tip of pre-maxilla; second supra-maxilla asymmetrical, lower half larger; lower gillrakers long and slender, 35-40; a distinct silver stripe along flank (Ref. 188, 1878). Its synonym *Limnothrissa stappersii* is characterised by fewer lower gill rakers, 22-25, fewer anal fin rays, 15-17, and the absence of scutes, and represents possibly a juvenile form of *L. miodon* (Ref. 188, 26733). It resembles *Stolothrissa tanganyicae* of Lake Tanganyika, which is more slender, has a small eye and a shorter maxilla blade not reaching forward to hind tip of premaxilla (Ref. 188).

Description: Body torpedo-shaped with short fins, pectorals low on body, pelvics behind dorsal origin, anal long-based, caudal forked (Ref. 7248, 52193). Mouth terminal; lower jaw projecting, lower front teeth large, sharply pointed and curved backward; upper jaw without median notch (Ref. 188, 7248, 52193). Gillrakers long and slender, closely set, 35-40 on lower part of anterior arch; number of lower gill rakers 20-25 for *Limnothrissa stappersii*, which is possibly a juvenile form of *L. miodon* (Ref. 188, 1878, 26733). Dorsal fin with 13-18 rays, equally distant from centre or posterior border of eye and from root of caudal, longest rays about half length of head; anal fin with 15-19 rays, a long way behind the dorsal, nearer to root of caudal fin than to base of pelvic fins; pectoral fin 3/5 length of head, widely separated from pelvic fin; pelvic fin inserted below anterior third or middle of dorsal, with 1 unbranched and 7 branched rays; caudal fin deeply forked, with pointed lobes (Ref. 188, 1878, 26733, 52193, 93833). Scales small and thin, easily shed; 45-48 scales in longitudinal series; 14 transverse scales (Ref. 1878, 52193). With 11-15 prepelvic and 6-11 postpelvic scutes, with pre-pelvic scutes not strongly keeled and beginning behind base of last pectoral fin ray (Ref. 188, 7248, 26733, 52193). Total number of vertebrae 41-44 (Ref. 26733).

**Maximum length:** 17.0 cm SL male/unsexed (Ref. 36901); common length: 10.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Olive above; silvery below, with a blue indistinct lateral band; dorsal and caudal greyish, other fins white (Ref. 1872, 1878).

**Distribution:** endemic to Lake Tanganyika (Ref. 188, 28136, 107916), but introduced into several other lakes, like Lake Kivu, Lake Kariba and Cahora Bassa reservoir (Ref. 188, 7248, 28136, 52193, 107916). Also reported as *Microthrissa stappersii* from Lake Mweru (Ref. 246, 52958), but this is based on an erroneous type locality of the species (Ref. 26733).

**Notes:**

## Congridae

*Bathymyrus smithi* Castle, 1968

**Common names:** Maputo conger (FAO), Safio comum (Mozambique).

**Description:** Description: Snout short and blunt; teeth small, uniserial in jaws, a few on front of vomer; 'intermaxillary' teeth sharp, in narrow patch that curves up somewhat on front of snout (Ref. 5323). Vertebrae 150-155 (Ref. 5323).

**Maximum length:** 58.0 cm TL male/unsexed (Ref. 5213).

**Colour:** Greyish brown, lighter ventrally; tips of fins black (Ref. 5323).

**Distribution:** Indian Ocean: Off Limpopo River, but probably more widespread (Ref. 5323).

**Notes:**

## Cynoglossidae

### *Cynoglossus lingua* Hamilton, 1822

**Common names:** Liculu (Mozambique), Lipembendeka (Mozambique), Long tongue sole (FAO, Mozambique), Tshaula (Mozambique).

**Description:** Description: Body very elongate, its depth 17-22% of standard length; eyes with a small interorbital space; snout obtusely pointed; rostral hook short; corner of mouth reaching well beyond vertical through posterior margin of lower eye, much nearer to gill opening than to tip of snout (Ref. 9895). Dorsal-fin rays 126-138; anal-fin rays 97-114; caudal-fin rays 10 (Ref. 9895). Two lateral lines on eyed side of body, none on blind side; midlateral-line scales 90-101; scales comparatively large, ctenoid on eyed side of body; cycloid (smooth) scales on blind side; only 11 or 12 scale rows between lateral lines on eyed side of body (Ref 9895). Total vertebrae 57-66 (Ref. 9895).

**Maximum length:** 45.0 cm TL male/unsexed (Ref. 11298); common length: 25.0 cm TL male/unsexed (Ref. 9895).

**Colour:** Eyed side reddish brown, sometimes with irregular brown-black patches, with a large black blotch on gill cover (Ref. 9895).

**Distribution:** Indo-West Pacific: Malay Archipelago including Thailand, Viet Nam, the Philippines and Indonesia westward to seas and estuaries of India and Pakistan to the Red Sea (Ref. 9895).

**Notes:**

## Cyprinidae

### *Cyprinus carpio* Linnaeus, 1758

**Common names:** Abba samuel (Ethiopia), Aischgrund carp (old FAO name), Carp (South Africa, Zimbabwe), Carpa (old FAO name), Carpa comun (AFS), Carpa común (FAO), Carpe (AFS), Carpe commune (FAO), Common carp (FAO, AFS, Kenya, Namibia, Rwanda), Inkuyu (Rwanda), Kapa (South Africa), Karp (South Africa), Mirror carp (old FAO name), Tikure (Ethiopia), Сазан(=карп) (FAO), 鲤 (FAO).

**Description:** Diagnosed from other cyprinid species in Europe by having the following characters: 2 pairs of barbels; dorsal fin with 15-20½ branched rays; caudal fin deeply emarginate (Ref. 59043). Pharyngeal teeth 1, 1, 3:3, 1,1, robust, molar-like with crown flattened or somewhat furrowed. Scales large and thick. 'Wild carp' is generally distinguished by its less stocky build with height of body 1:3.2-4.8 in standard length. Very variable in form, proportions, squamation, development of fins, and color. Caudal fin with 3 spines and 17-19 rays (Ref. 2196). Last simple anal ray bony and serrated posteriorly; 4 barbels; 17-20 branched dorsal rays; body grey to bronze (Ref. 43281). Also Ref. 3398, 3410.

**Maximum length:** 120 cm TL male/unsexed (Ref. 27549); common length: 31.0 cm TL male/unsexed (Ref. 3561).

#### **Colour:**

**Distribution:** Europe to Asia: Black, Caspian and Aral Sea basins. Introduced throughout the world. Wild stocks are only present naturally in rivers draining to the Black, Caspian and Aral Sea (Ref. 59043). A rheophilic wild population in the Danube is assumed to be the origin of the European species; this population is now under threat (Ref. 13696).

#### **Notes:**

### *Enteromius afrohamiltoni* (Crass, 1960)

**Common names:** Dik-ghielientjie (South Africa), Hamilton se ghielientjie (South Africa), Hamilton's barb (Namibia, South Africa, Zimbabwe), Matemba (Malawi), Plump barb (South Africa).

**Description:** Description: Relatively deep-bodied, with steep back and deep caudal peduncle (Ref. 52193). Mouth large, with 2 pairs of barbels (Ref. 52193). Dorsal fin with 3 spines and 8 soft rays; anal fin with 3 unbranched and 5 branched rays; third simple ray enlarged to form a stout spine with serrated posterior margin, longer than head length (Ref. 13337, 52193). Scales in lateral line 30-34, 16 around caudal peduncle (Ref. 13337, 52193).

**Maximum length:** 17.5 cm SL male/unsexed (Ref. 52193).

**Colour:** Silvery in life (Ref. 52193), with no trace of black pigmentation (Ref. 13337). A faint lateral stripe appears in preserved material which somehow appears to maintain a silvery sheen (Ref. 13337).

**Distribution:** lowveld reaches of tropical east coast rivers from the lower Zambezi to the Phongolo (Ref. 7248, 52193). Unconfirmed reports from the upper Zambezi, Kafue, Nata and Zambian Congo (Lake Bangweulu) systems (Ref. 52193).

#### **Notes:**

*Enteromius annectens* (Gilchrist & Thompson, 1917)

**Common names:** Breëstreep-ghieliemientjie (South Africa), Broadstriped barb (South Africa, Zimbabwe).

**Description:** Description: Body slender (Ref. 13337). Mouth with 2 pairs of relatively short barbels, less than orbit (Ref. 52193). Dorsal fin with 3 unbranched and 7-8 branched rays; anal fin with 3 unbranched and 5 branched rays; the third simple ray of the dorsal fin is slender and flexible (Ref. 13337, 52193). Scales relatively large, 25-29 in lateral line series, 12 around caudal peduncle, 3 between dorsal fin and lateral line (Ref. 13337, 52193).

**Maximum length:** 7.5 cm SL male/unsexed (Ref. 52193).

**Colour:** Translucent olive brown with 3 spots or a broad dark band along the body, silvery white below, a dark spot at base of anal fin (Ref. 52193). Preserved material frequently shows 3 spots with the last two vaguely connected by a dark band (Ref. 52193).

**Distribution:** East coast rivers from Zambezi system south to Mkuze in northern KwaZulu-Natal; restricted to lowveld region south of Limpopo system (Ref. 7248, 52193). Considered to be closely related to or the same species as the Barotse barb, *Barbus barotseensis* (Ref. 7248, 52193).

**Notes:**

*Enteromius anoplus* (Weber, 1897)

**Common names:** Chubbyhead barb (Namibia, South Africa), Dikkop-ghieliemientjie (South Africa).

**Description:** Description: Head typically blunt or rounded; mouth small, usually with single pair of short barbels (Ref. 52193). Dorsal fin with 3 unbranched and 7 branched rays; anal fin with 3 unbranched and 5 branched rays; primary dorsal ray simple, flexible (Ref. 52193). Scales with numerous radial striations, 33-37 in lateral line series (Ref. 52193).

**Maximum length:** 10.0 cm SL male/unsexed (Ref. 52193); 12.0 cm SL (female).

**Colour:** Females and non-breeding males greyish green above with a small dot at mid-base of caudal fin; males sometimes have a broad dark band along body (Ref. 52193).

**Distribution:** Widely distributed from Limpopo to upland KwaZulu-Natal, Transkei and the middle and upper Orange basin, including the Karoo (Ref. 7248, 52193). Absent from the lower Orange; present in larger coastal rivers of the Eastern and Western Cape (Olifants, Gourits, Gamtoos, Sundays and Great Fish) but absent from Cape fold mountain streams (Ref. 52193).

**Notes:**

*Enteromius argenteus* (Günther, 1868)

**Common names:** Roosvlerk-ghieliemientjie (South Africa), Rosefin barb (South Africa).

**Description:** Description: Mouth with 2 pairs of well-developed barbels (Ref. 52193). Dorsal fin with 3 spines and 7-8 soft rays; anal fin with 3 unbranched and 5 branched rays (Ref. 52193). Scales 27-32 in lateral line, 14 around caudal peduncle (Ref. 52193).

**Maximum length:** 19.7 cm TL male/unsexed (Ref. 2801).

**Colour:** Generally a silvery fish, with light olive dorsal surface, a vague stripe along caudal peduncle, fins orange-red in mature specimens (Ref. 52193).

**Distribution:** Pongolo and Incomati rivers of South Africa (Ref. 2801, 52193) as well as Cunene and Cuanza rivers of Angola (Ref. 2801, 120641). Also in the Catumbela River in Angola (Ref. 11970). Similar to, and possibly even the same species as the silver barb, *Enteromius choloensis* (Ref. 7248) or juveniles of *Enteromius mattozi* (Ref. 52193, 120641).

**Notes:**

### *Enteromius atkinsoni* (Bailey, 1969)

**Common names:** Dash-dot barb (South Africa), Streeppunt-ghieliemientjie (South Africa).

**Description:** Diagnosis: member of the group of small *Enteromius* with a thin, flexible last unbranched dorsal ray and two pairs of well developed barbels (Ref. 87017). It differs from all the other species of this group in East Africa in having fewer scales in the midlateral line, and pores restricted to the first 4-9 scales of this series (Ref. 87017).

Description: Body slightly compressed, its depth a little greater than the head length (Ref. 87017). Caudal peduncle relatively deep, its depth 1.25-1.65 in its length (Ref. 87017). Snout rounded, shorter than the diameter of the eye; barbels well developed, anterior 0.50-0.75 times, and posterior 1.00-1.33 times the diameter of the eye (Ref. 87017). Dorsal-fin origin above or slightly in advance of the pelvic-fin origin; dorsal fin with 4 unbranched and 7-8 branched rays; the first unbranched ray is minute and hardly visible; the last unbranched ray is flexible and unossified; the last branched ray in both the dorsal and anal fins may be deeply divided, almost to its base (Ref. 87017). Midlateral longitudinal scale series with 25-27 scales, lateral line pores limited to the first 4-9 scales; 4-4.5 scales between the lateral line and the dorsal-fin origin; 2-3 scales between the lateral line and the pelvic-fin origin; 12 scales around the caudal peduncle; 9-10 scales in the predorsal row (Ref. 87017).

**Maximum length:** 3.2 cm SL male/unsexed (Ref. 2801).

**Colour:** In life watery brown dorsally, paler beneath, with a brassy metallic area on the operculum (Ref. 87017). Preserved specimens with dorsal surface of the head and body brownish, the scales are outlined in a reticulum of small spots, except on the ventral surface; typically there are 3 dark spots on the sides of the body, the last and usually largest, being situated on the base of the caudal; a thin, rather indistinct midlateral stripe runs from the first to the last of these spots; in a few specimens, the middle spot of this series may be doubled on one side, or this or the more anterior of the spots, may be indistinct; further small patches of dark pigment are apparent at the dorsal-fin origin and the base of the anal fin, in some specimens (Ref. 87017).

**Distribution:** Ruaha (Rufiji basin), Ruvuma, middle and lower Zambezi (Ref. 13332). Also reported from Lake Malawi tributaries (Ref. 55909) and the Shire River (Ref. 37112).

**Notes:**

### *Enteromius barnardi* (Jubb, 1965)

**Common names:** Blackback barb (Namibia, South Africa, Zimbabwe), Mukenga (Angola), Ngonga (Angola), Senge (Angola), Swartrug-ghieliemientjie (Namibia, South Africa).

**Description:** Description: Body slender, fusiform, pointed; mouth small and terminal, with a single pair of minute barbels; barbels extremely short; anterior barbel sometimes absent or minute when present; posterior barbels up to less than half eye diameter (Ref. 13337, 52193). Breeding males with small conical tubercles on the snout (Ref. 13337, 52193). Dorsal fin with 3 unbranched and 7-8 branched rays; anal fin with 3 unbranched and 5-6 branched rays (Ref. 13337, 52193). Scales in lateral line 29-33, 12 around caudal peduncle (Ref. 52193).

**Maximum length:** 7.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Translucent brown, silver on sides and below, fins pale yellow; a distinctive straight black stripe from tip of snout to caudal-fin base, irregular black spots along midline of back, a black spot at base of anal fin (Ref. 52193).

**Distribution:** Okavango (Ref. 52193, 120641), Kafue River (Ref. 2801) and (upper) Zambezi in Angola (Ref. 11970, 120641). Also known from the Cunene (Ref. 7248, 52193, 120641) and Zambian Congo systems (Ref. 7248, 52193).

**Notes:**

### *Enteromius bifrenatus* (Fowler, 1935)

**Common names:** Hyphen barb (Namibia, South Africa, Zimbabwe), Mbala (Namibia), Skakel-ghieliemientjie (Namibia, South Africa).

**Description:** Diagnosis: With 2 distinct black lateral stripes along the body; lateral stripe begins clearly on the snout and runs through the eye and gill cover and down the body (Ref. 13337). The lateral line tubules are closely outlined in black, giving the line a tubular appearance (Ref. 13337). Anterior barbel about eye diameter and posterior barbel a little longer (Ref. 13337).

Description: Lateral line scales 27-30; 12 circumpeduncular scales (Ref. 13337, 122753).

**Maximum length:** 7.0 cm SL male/unsexed (Ref. 52193).

**Colour:** 2 distinct black lateral stripes along the body (Ref. 13337).

**Distribution:** widespread over northern parts of southern Africa including the Cunene, Okavango, Upper Zambezi, Kafue, Zambian Congo and Limpopo systems; isolated populations occur in Malawi and on the eastern shores of Lake St. Lucia in Natal (Ref. 52193). May be confused with the bowstriped barb, *Barbus viviparus* (Ref. 7248) but differs in pigmentation details (Ref. 52193).

**Notes:**

### *Enteromius brevipinnis* (Jubb, 1966)

**Common names:** Kortvin-ghieliemientjie (South Africa), Kortvlerk-ghieliemientjie (South Africa), Shortfin barb (South Africa, Zimbabwe).

**Description:** Description: Body compact, head short, mouth with 2 pairs of long barbels (Ref. 52193). Dorsal fin with 3 unbranched and 7-8 branched rays; anal fin with 3 unbranched and 5 branched rays (Ref. 52193). Scales in lateral line 27-30, 10-12 around caudal peduncle (Ref. 52193).

**Maximum length:** 4.5 cm SL male/unsexed (Ref. 52193).

**Colour:** Translucent brown with silvery white below, scales with dark pigment along borders creating a mesh-like pattern, a series of irregular dashes or single stripe along midbody (Ref. 52193). Breeding males turn bright golden (Ref. 52193).

**Distribution:** Sabie-Sand river system in Mpumalanga and tributaries of the Phongolo River in KwaZulu-Natal, South Africa (Ref. 52193).

**Notes:**

### *Enteromius choloensis* (Norman, 1925)

**Common names:** Matemba (Malawi), Silver barb (South Africa), Silwer-ghielientjie (South Africa).

**Description:** robust species; snout pointed; serrated dorsal spine present; caudal fin lobes pointed (Ref. 75045).

**Maximum length:** 17.5 cm SL male/unsexed (Ref. 7248).

**Colour:** yellow or orange tinted fins; black midlateral stripe present but diffuse, confined to posterior half of body, broadening to an indistinct oval spot one full scale wide on caudal peduncle and not extending noticeably on caudal fin rays (Ref. 75045).

**Distribution:** Tributaries of the lower Shire, lower Zambezi system, Malawi.

**Notes:**

### *Enteromius eutaenia* (Boulenger, 1904)

**Common names:** Kasenga (Zambia), Kasepa (Zambia), Orange-fin barb (Namibia), Orangefin barb (Namibia, South Africa, Zimbabwe), Oranjevlerk-ghielientjie (Namibia, South Africa).

**Description:** robust species; enlarged scales forming a sheath at the base of the dorsal fin; serrated dorsal spine present (Ref. 75045).

**Maximum length:** 14.0 cm SL male/unsexed (Ref. 7248); common length: 9.0 cm male/unsexed; (Ref. 13337).

**Colour:** yellow or orange tinted fins; broad, heavy, black midlateral stripe present, extending through the operculum and to the tip of the snout (Ref. 75045).

**Distribution:** rivers of eastern highlands of Zimbabwe and the Transvaal escarpment (Ref. 2801), Cunene, Cuanza, Okavango (Ref. 11970, 52193, 120641), Zambezi (Ref. 52193, 120641), east coast systems south to the Incomati (Komati) system and Lake Tanganyika (Ref. 52193). In the Congo system in the the upper Lualaba (Ref. 41590), Lake Mweru (Ref. 11970, 41590), Luapula system (Ref. 27609, 41590), Bangweulu-Chambesi (Ref. 42135, 95585) and upper Kasai (Ref. 41590). Report from Lake Nyassa (Ref. 11970, based on Greenwood 1962) needs confirmation.

**Notes:***Enteromius fasciolatus* (Günther, 1868)

**Common names:** African banded barb (AFS), Barred barb (South Africa), Linyonga (Namibia), Red barb (Namibia, South Africa, Zimbabwe), Rooi-ghieliemientjie (Namibia, South Africa), Tiger barb (South Africa).

**Description:** Description: Body slender, 2 pairs of barbels (Ref. 52193). Dorsal fin with 3 unbranched and 8 branched rays; anal fin with 3 unbranched and 5 branched rays (Ref. 52193). Scales in lateral line 25-30, 12 around caudal peduncle (Ref. 52193).

**Maximum length:** 6.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Light rose to red, silvery white below, with a series of 10-15 black vertical bars on body, second or third often ovoid and last tending to form a spot at end of caudal peduncle (Ref. 52193, 122753).

**Distribution:** Cunene, Okavango (Ref. 52193), upper and middle Zambezi River systems including the Kafue (Ref. 52193, 95585). Also in upper Kasai (Ref. 45616) and in the upper Congo River basin in middle and upper Luapula system (Ref. 41590), including the Luongo River (Ref. 27609), and in the Bangweulu swamps (Ref. 42135). Also known from Lake Kariba (Ref. 27602).

**Notes:***Enteromius haasianus* (David, 1936)

**Common names:** Matemba (Malawi), Sekelvin-ghieliemientjie (Namibia, South Africa), Sickle barb (AFS), Sickle-fin barb (Namibia, South Africa), Sicklefin barb (Namibia, Zimbabwe).

**Description:** Description: No barbels present on the small terminal mouth; eye very large (Ref. 13337, 52193, 122753). Dorsal fin with 2 unbranched and 8-9 branched rays; anal fin with 2 unbranched and 5-6 branched rays; anal fin of the adult male elongated, sickle-shaped and can reach the tail (Ref. 13337, 52193). Scales small, 35-38 in lateral series; no lateral line (Ref. 52193).

**Maximum length:** 3.2 cm SL male/unsexed (Ref. 52193).

**Colour:** Translucent brown to rosy red (breeding males) with a thin line along midbody ending in a spot at base of caudal fin; a black triangle on base of dorsal fin, a black spot on base of anal fin (Ref. 52193).

**Distribution:** Okavango, upper Zambezi, Kafue, lower Zambezi and Pungwe systems (Ref. 52193). Also in the Cuanza in Angola (Ref. 11970, 120641). In the middle Congo basin present in the upper Lulua (Kasai drainage), in the upper Congo basin in the upper Lualaba, Luapula, (Ref. 41590), Lake Bangweulu (Ref. 41590, 42135) and Bangweulu swamps (Ref. 42135).

**Notes:***Enteromius innocens* (Pfeffer, 1896)

**Common names:** Inconspicuous barb (Tanzania), Matemba (Malawi).

**Description:** Description: Small and inconspicuous *Enteromius* species; body moderately elongate with a slender caudal peduncle (Ref. 27292). Snout rounded and terminate to subterminate; two pairs of barbels; eye as long as or a little bit longer in diameter than length of snout (Ref. 27292). Dorsal fin with 3 unbranched and 8-9 branched rays; anal fin with 2-3 unbranched and 5-6 branched rays; pectoral fin with 1 unbranched and 13-15 branched rays; pelvic fin with 1-2 unbranched and 7-8 branched rays; dorsal-fin origin slightly in front of or above pevic fins; dorsal fin relatively high; last simple dorsal ray long, smooth and flexible, not serrated posteriorly; hinder margin of dorsal fin slightly concave; caudal fin deeply forked, lobes pointed (Ref. 27292). Lateral line moderately curved downwards; lateral line scales 28-33; 4.5 scales above and 2.5 scales below lateral line; 12 scales around caudal peduncle (Ref. 27292, 122753).

**Maximum length:** 8.0 cm TL male/unsexed (Ref. 2801).

**Colour:** The overall colour is that of a light brown, a little bit darker on the back and lighter to whitish or even silvery on the belly; especially on the back, each scale has a dark brownish margin; on the flanks of the body there is a silverish sheen which becomes even more prominent after preservation of the fish; in life, there is a dark brownish to greyish narrow band along the sides which runs from the upper gill cover to the caudal peduncle; this lateral streak, which frequently has a golden hue, is prominent in most specimens in only its last two thirds and often fades out in front of the dorsal fin, but it always is well marked in preserved specimens; fins brownish to transparent with the borders dark edged, especially in the dorsal fin; the lateral line pores of the first scales show some darkish pigments (Ref. 27292).

**Distribution:** Lake Malawi, Lake Rukwa, Wawi and Mkata Rivers (Ref. 2801). Also Rufiji-Ruaha system (Ref. 27292).

**Notes:**

### *Enteromius kerstenii* (Peters, 1868)

**Common names:** Agahuza (Rwanda), Ikinanga (Rwanda), Imisege (Rwanda), Inkwekwe (Rwanda), Isharangati (Rwanda), Kersten's barb (Kenya, Rwanda), Matemba (Malawi), Redspot barb (Zimbabwe), Redspot barb (Kenya, Namibia, Rwanda, South Africa), Rooikol-ghieliemientjie (Namibia).

**Description:** Diagnosis: Last unbranched ray of the dorsal fin hardened and with posterior side toothed (Ref. 27628). Presence of a brilliant orange spot on the operculum is characteristic for this species (Ref. 27628).

Description: Fairly deep-bodied; mouth with 2 pairs of barbels (Ref. 52193). Dorsal fin with 3 spines and 7-8 soft branched rays; anal fin with 3 unbranched and 5 branched rays (Ref. 27628, 52193). Scales in lateral line 23-28, 11-12 around caudal peduncle (Ref. 27628, 52193).

**Maximum length:** 9.0 cm SL male/unsexed (Ref. 27628).

**Colour:** Light brown above, silvery on the sides and below; a bright yellow, orange or red spot on each gill cover; lateral line pores are marked with black chevrons; a black zigzag stripe ending in a spot at end of caudal peduncle is usually present (Ref. 52193).

**Distribution:** Cunene, Okavango, upper Zambezi, tributaries of the lower Zambezi, Save-Runde (Ref. 7248, 52193), Pungwe, Buzi (Ref. 94654) and Kafue (Ref. 12524) systems. Also Lake Victoria,

Tanganyika, Edward and Kivu basins (Ref. 104790), Lake Malawi system (Ref. 37112), the upper Congo system (Ref. 2970, 27609, 95585) and coastal river basins in Kenya (Ref. 52331) and Tanzania (Ref. 41366).

**Notes:**

*Enteromius lineomaculatus* (Boulenger, 1903)

**Common names:** Ijembe (Rwanda), Line-spotted barb (FAO, Kenya, Namibia, Rwanda, South Africa), Linespotted barb (Tanzania, Zimbabwe), Linespotted saisi-barb (Tanzania), Lynkol-ghielientjie (South Africa), Lynspikkel-ghielientjie (Namibia), Matemba (Malawi), Spotted barb (Zambia).

**Description:** Diagnosis: Last unbranched ray of dorsal fin more or less flexible and without posterior denticulation; second mandibular barbel is well developed and ending at anterior side of operculum (Ref. 27628).

Description: Lateral line scales 26-32 (Ref. 13337, 122753); 28-32 scales on lateral line for specimens of Rwanda (Ref. 27628).

**Maximum length:** 8.6 cm SL male/unsexed (Ref. 27628).

**Colour:** Silver or yellow coloured on the flanks; a series of 4 to 7 black spots, more or less elongated, sometimes forming a black lateral band above the lateral line; mostly a second dark curved line under the lateral line (Ref. 27628).

**Distribution:** Cunene, Okavango, Zambezi and Limpopo systems, common in Zimbabwe and Zambia; also widespread in Central and East Africa (Ref. 52193), south- and eastwards from the upper Congo River basin (Ref. 45616). In the upper Congo basin present in the drainages of the Lualaba (Ref. 36901), upper Lualaba (Ref. 45616), Mweru-Luapula and Bangweulu-Chambeshi (Ref. 95585). Probably also in the Malagarasi (Ref. 54847).

**Notes:**

*Enteromius litamba* (Keilhack, 1908)

**Common names:** Matemba (Malawi), Nthuwa (Malawi), Tamba (Tanzania).

**Description:** Description: Depth of body 3.5 times in total length; length of head 3.8 times in total length (Ref. 2988). Snout rounded, not longer than eye, which is 4.6 times in head length; interorbital width 2.75 times in head length; mouth inferior, its width 3.5 times in head length; lips feebly developed, restricted to the sides; a single barbel on each side, not half the eye-diameter (Ref. 2988). Dorsal fin with 3 spines and 8 soft rays; last spine strong, bony and strongly serrated; anal fin with 3 spines and 5 soft rays; base of pelvic fin in front of dorsal fin (Ref. 2988, 4967). Scales on lateral line 35-40, 4 scales between lateral line and pelvic fin; scales have radial striae (Ref. 2988, 4967).

**Maximum length:** 35.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Silvery; caudal fin of juveniles reddish (Ref. 4967).

**Distribution:** Endemic to the Lake Malawi basin (Ref. 2801).

**Notes:**

*Enteromius macrotaenia* (Worthington, 1933)

**Common names:** Breëband-ghieliemientjie (South Africa), Broadband barb (FAO, South Africa)

**Description:** Description: Body short, 2 pairs of barbels (Ref. 52193). Breeding males develop tubercles on the snout (Ref. 52193). Dorsal fin with 3 unbranched and 8 branched rays; anal fin with 3 unbranched and 5 branched rays (Ref. 52193). Lateral line complete; scales in lateral line 25-28, 12 around caudal peduncle (Ref. 52193).

**Maximum length:** 4.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Translucent grey, silvery white below, with a straight, broad black stripe from tip of snout to base of caudal fin and a black spot at base of anal fin (Ref. 52193).

**Distribution:** Lake Malawi, Shire River (Lower Zambezi system) and Buzi River (Ref. 2801). Also in Pungwe River (Ref. 52193).

**Notes:**

*Enteromius manicensis* (Pellegrin, 1919)

**Common names:** Geel-ghieliemientjie (South Africa), Matemba (Malawi), Yellow barb (South Africa, Zimbabwe).

**Description:** Description: Body stout, 2 pairs of barbels (Ref. 52193). Dorsal fin with 3 spines and 7-8 branched rays; anal fin with 3 unbranched and 5 branched rays (Ref. 52193). Scales large, 22-25 in lateral line, 12 around caudal peduncle (Ref. 52193).

**Maximum length:** 15.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Plain silvery (Ref. 52193).

**Distribution:** Pungwe, Buzi and lower Zambezi in Mozambique (Ref. 7248, 52193). Records from the upper Zambezi, Kafue and Zambian Congo are unconfirmed (Ref. 7248, 52193).

**Notes:**

*Enteromius paludinosus* (Peters, 1852)

**Common names:** Daga (Tanzania), Enzuguri (Uganda), Enzunguli (Uganda), Ikinanga (Rwanda), Inkwekwe (Rwanda), Kasenga (Zambia), Kasepa (Zambia), Linyonga (Namibia), Lynvin of Moeras-ghieliemientjie (South Africa), Lynvin-ghieliemientjie (Namibia, South Africa), Masenga (Zambia), Matemba (Malawi), Murungulu (South Africa), Phupela (South Africa), Straightfin barb (FAO, Kenya, Namibia, Rwanda, South Africa, Tanzania, Zimbabwe, Zambia).

**Description:** Diagnosis: Last unbranched ray of dorsal fin thorny, long and with posterior denticulation; barbels not well developed, anterior barbel very short, just reaching the posterior side of the maxilla, posterior barbel just reaching the middle of the eye (Ref. 27628). Dorsal side brown-silver coloured, ventral side silver, with a darker band on the flanks; fins not coloured (Ref. 27628).

Description: Head pointed, mouth small, with 2 pairs of short barbels (Ref. 52193). Dorsal fin with 3 spines and 7-8 soft rays; anal fin with 3 unbranched and 5-7 branched rays; Primary dorsal fin ray

serrated on distal half, hind margin of erect dorsal fin vertical (Ref. 27628, 52193). Scales in lateral line 32-40, 16-18 around caudal peduncle (Ref. 27628, 52193).

**Maximum length:** 15.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Plain olive grey or silvery in turbid waters, a thin sideline sometimes present (Ref. 52193). Fins not coloured (Ref. 27628).

**Distribution:** ranges from Ethiopia in the north, through East and Central Africa, extending westwards into Angola and reaching the southern-most limits of its distribution in Vungu, KwaZulu-Natal, in South Africa (Ref. 2801, 52193). In the Congo basin known from Lake Mweru, Luapula, upper Lualaba, Lufira (Ref. 41590) and upper Lulua (Ref. 42554).

**Notes:**

### *Enteromius radiatus* (Peters, 1853)

**Common names:** Beira barb (Kenya, Namibia, South Africa, Tanzania, Zimbabwe), Beira-ghieliemientjie (Namibia, South Africa), Daga (Tanzania), Liminolale (Namibia), Lumbungo (Angola), Lutemba (Angola), Matemba (Malawi), Mimbulwe (Zambia), Mukenga (Angola), Ngonga (Angola), Redeye barb (AFS, Kenya, South Africa), Rooioog-ghieliemientjie (South Africa), Senge (Angola).

**Description:** Diagnosis: Pit lines on top of head and on cheeks are a distinctive feature (Ref. 52193).

Description: Mouth with two pairs of very short barbels (Ref. 52193). Dorsal fin with 3 unbranched and 8-9 branched rays; anal fin with 3 unbranched and 5-6 branched rays (Ref. 11970, 52193). Scales in lateral line 24-29, 12 around caudal peduncle (Ref. 52193).

**Maximum length:** 12.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Silvery, usually with a straight continuous black band from snout to caudal fin base; dorsal and caudal fins rose red with sooty black edges; eye bright red above (Ref. 52193, 122753).

**Distribution:** Aswa River in Uganda southwards along the whole coast of East Africa up to the Limpopo, Inkomati and Umbelezi River systems in Transvaal, South Africa (Ref. 27292). To the west found in the upper Congo drainage including the Malagarazi system and Lakes Bangweulu and Mweru, the whole Zambezi system including the Okavango, and as far as the Cuanza and Cunene Rivers in Angola and the upper Kasai in the Democratic Republic of Congo (Ref. 27292) and Angola (Ref. 11970).

**Notes:**

### *Enteromius toppini* (Boulenger, 1916)

**Common names:** East Coast barb (South Africa, Zimbabwe), East-Coast barb (Kenya), Matemba (Malawi), Ooskus-ghieliemientjie (South Africa), Shaa (Kenya).

**Description:** Description: Mouth small, with a single pair of minute barbels (Ref. 52193). Dorsal fin with 3 unbranched and 8 branched rays; anal fin with 3 unbranched and 5 branched rays (Ref. 52193). Scales in lateral series 27-30, lateral line pores on first 8-13 scales only; 12 scales around caudal peduncle (Ref. 52193).

**Maximum length:** 4.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Translucent olive above, flanks silvery, white below; an irregular black stripe from tip of snout to base of mid-caudal rays, broader and more clearly marked in males (Ref. 52193).

**Distribution:** Mkuze, Pongolo, Incomati and Umbezezi Rivers northwards along the east coast to Lake Chilwa in Malawi (Ref. 2801). Also in Ruaha, Tanzania (Ref. 7248, 52193) and Zimbabwe (Ref. 13337).

**Notes:**

### *Enteromius trimaculatus* (Peters, 1852)

**Common names:** Driekol-ghieliemientjie (South Africa), Matemba (Malawi), Mushipa (Zambia), Thanzwane (South Africa), Threespot barb (FAO, Malawi, Namibia, South Africa, Zimbabwe, Zambia).

**Description:** Description: Body robust; 2 long barbels present (Ref. 52193). Dorsal fin with 3 spines and 8 soft rays; anal fin with 3 unbranched and 5 branched rays (Ref. 52193). Lateral line scales 31-35, 13-16 around caudal peduncle (Ref. 52193).

**Maximum length:** 15.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Silvery, tinged with gold when in breeding condition; usually 3 clear black spots on body and base of caudal peduncle (Ref. 52193).

**Distribution:** Zambezi River system, Lake Ngami and Cubango rivers; Lake Malawi and the Ruo River; Lake Bangweulu and associated rivers; Luapula and upper Lualaba rivers; Orange, Limpopo, Comati and Vaal Rivers systems; Kunene and Cubango Rivers (Ref. 2801). East coast from Ruvuma, Tanzania to Umvoti, KwaZulu-Natal, also Orange, Cunene and Zambian Congo systems (Ref. 7248, 52193). Replaced in Okavango, upper Zambezi and Kafue by *Enteromius poechii* (Ref. 52193).

**Notes:**

### *Enteromius unitaeniatus* (Günther, 1867)

**Common names:** Langbaard-ghieliemientjie (Namibia, South Africa), Linyonga (Namibia), Longbeard barb (Namibia, South Africa, Zimbabwe, Zambia), Mimbulwe (Zambia), Phupela (South Africa), Slender barb (FAO, AFS).

**Description:** Description: Body slender and attenuated; back short, with dorsal fin in advance of pelvic fins (Ref. 52193). Eyes large, dorsolateral in position; mouth inferior, with 2 pairs of long barbels (Ref. 52193). Dorsal fin with 3 unbranched and 8 branched rays; anal fin with 3 unbranched and 5-6 branched rays (Ref. 11970, 52193). Lateral line scales 29-35 (Ref. 52193, 122753).

**Maximum length:** 14.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Translucent brown with silvery white below, a characteristic dark lateral stripe and chevron markings on lateral line; dorsal fin tip and trailing edges black (Ref. 52193).

**Distribution:** widespread in southern Africa from the Zambian Congo system (Ref. 52193) and the Cunene, Okavango (Ref. 7248, 11970, 52193, 120641), and Zambezi south to the Phongolo (Ref. 52193). Also present in the Cuanza (Ref. 11970, 120641) and Bengo in Angola (Ref. 11970). Absent from the lower Zambezi, Buzi, Pungwe and Save systems (Ref. 7248, 52193).

**Notes:**

*Enteromius viviparus* (Weber, 1897)

**Common names:** Boogstreep-ghieliemientjie (South Africa), Bowstripe barb (South Africa, Zimbabwe), Lisangisangi (Angola), Matemba (Malawi).

**Description:** Description: Body slender, 2 pairs of long barbels (Ref. 52193). Dorsal fin with 3 unbranched and 8-9 branched rays; anal fin with 3 unbranched and 5-6 branched rays (Ref. 11970, 52193). Scales in lateral line 26-30, 12 around caudal peduncle (Ref. 11970, 52193).

**Maximum length:** 7.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Translucent olive brown above, silvery on sides and below; a complete or broken black stripe from behind the head ends as a spot at base of caudal fin; lateral line tubules marked by black chevrons, a dark spot present at base of anal fin; breeding males turn golden (Ref. 52193).

**Distribution:** East coastal rivers and freshwater lakes from the Ruvuma (Tanzania-Mozambique border) southwards to the Vungu in southern KwaZulu-Natal; generally confined to lowveld and coastal plain regions but penetrates inland in larger systems such as the Limpopo (Ref. 7248, 52193). Also in Kafue River system (Ref. 27607). Also reported from the upper Zambezi and the Kwango River (middle Congo River basin) in Angola (Ref. 11970), but the latter is unconfirmed in other sources and needs confirmation. Reported as *Enteromius* cf. *viviparus* from the Zambezi, Okavango and Kunene in Angola in Ref. 120641.

**Notes:**

*Enteromius zanzibaricus* (Peters, 1868)

**Common names:** Kihalahala (Kenya), Shaa (Kenya), Zanzibar barb (Kenya).

**Description:** Description: Depth of body 3.3-3.5 times in total length; length of head 3.5-4.0 times in total length (Ref. 2988). Caudal peduncle 1.3-1.5 times as long as deep (Ref. 2988). Snout rounded, a little shorter than eye, which is 3.0-3.3 times in head length; interorbital width 2.5-2.6 times in head length; mouth terminal, 3.5 times in head length; lips thin; two barbels on each side, anterior a little shorter than eye, posterior a little longer (Ref. 2988). Dorsal fin with 3 spines and 7-8 soft rays, equally distant from centre or posterior border of eye and from base of caudal fin, border straight, last spine strong, bony, serrated and shorter than head length; anal fin with 3 spines and 5-6 soft rays; pectoral fin about 2/3 head length, not reaching pelvic fin; base of pelvic fin below anterior half of dorsal fin (Ref. 2988). Scales on lateral line 29-31, 2.5-3 scales between lateral line and pelvic fin, 12 scales around caudal peduncle (Ref. 2988).

**Maximum length:** 9.7 cm TL male/unsexed (Ref. 2801).

**Colour:** Silvery, brownish on the back; a dark dot at base of caudal fin (Ref. 2988).

**Distribution:** rivers of Kenya and Somaliland (Ref. 2801).

**Notes:**

### *Labeo altivelis* Peters, 1852

**Common names:** Hunyani labeo (South Africa, Zambia), Hunyani-labeo (South Africa), Manyame labeo (South Africa, Zimbabwe), Manyame-moddervis (South Africa), Mpumbu (Zambia), Mpunbu (Zambia), Njole (Malawi), Rednose labeo (AFS, FAO), Sailfin mudsucker (Zambia).

**Description:** Description: Body relatively deep and compressed (Ref. 52193). Snout with red tubercles; mouth subterminal; lips papillose; a single pair of short barbels (Ref. 52193). Dorsal fin with 3 unbranched and 11-13 branched rays; anal fin with 3 unbranched and 5 branched rays; dorsal fin usually very large, with extended rays (Ref. 52193). Scales in lateral line 36-39, 16-18 around caudal peduncle (Ref. 26190, 52193).

**Maximum length:** 49.0 cm TL male/unsexed (Ref. 5309).

**Colour:** Juveniles silvery with large black spot on caudal peduncle (Ref. 52193). Adult colour variable but often very attractive, with bright green base, iridescent pinkish scales, and a bright green band on the body behind the gill cover; silvery white below, fins deep bluish grey (Ref. 52193).

**Distribution:** lower and middle reaches of the Zambezi River system, including the Shire and Lake Malawi (Ref. 26190). Also in Lake Mweru and the Luapula (upper Congo River basin) (Ref. 26190). Range thought to extend to some East Coast rivers (Rufiji system) (Ref. 1440).

**Notes:**

### *Labeo baldasseronii* Di Caporiacco, 1948

**Common names:**

**Description:**

**Maximum length:** 5.5 cm SL male/unsexed (Ref. 2801).

**Colour:**

**Distribution:** only known from the type locality in Mozambique.

**Notes:**

### *Labeo congoro* Peters, 1852

**Common names:** Bronspikkel-labeo (South Africa), Perslyf-moddervis (South Africa), Purple labeo (AFS, South Africa, Zimbabwe, Zambia), Red-spotted labeo (South Africa), Rooskub-moddervis (South Africa), Tsimbu (Malawi).

**Description:** Description: Deep-bodied with a deep caudal peduncle (Ref. 52193). Mouth large and fleshy, with well-developed papillose lips; snout with tubercles (Ref. 52193). Dorsal fin with 4 unbranched and 10-12 branched rays; anal fin with 3 unbranched and 5 branched rays; dorsal fin high, with a straight or convex hind edge (Ref. 52193). Scales in lateral line 38-40, 16-18 around caudal peduncle (Ref. 52193).

**Maximum length:** 41.5 cm SL male/unsexed (Ref. 52193).

**Colour:** Colour usually dark greenish grey with a purple sheen and a reddish centre to the scales, fins usually dusky black (Ref. 52193).

**Distribution:** Zambezi river and the Incomati system (Ref. 1440); the warmer lowveld reaches of the middle and lower Zambezi system (Ref. 52193); Pungwe, Buzi, Sabi and Lundi rivers but absent from the cooler sections (Ref. 1440). Also from the rivers of Tanzania, the Luapula-Moero region of the Congo basin and Malagarasi River in Lake Tanganyika (Ref. 1440).

**Notes:**

*Labeo cylindricus* Peters, 1852

**Common names:** African carp (Malawi), Chirichiri (Tanzania), Gukhuna tombo (South Africa), Kalongwe (Zambia), Livuli (Kenya), Nibununu (Malawi), Nchila (Malawi), Ningo (Tanzania), Ningwe (Malawi, Tanzania), Ningwi (Malawi), Nyampotu (Tanzania), Redeye labeo (FAO, Kenya, Namibia, South Africa, Zimbabwe, Zambia), Redeyed labeo (Tanzania), Rooioog-labeo (Namibia, South Africa), Rooioog-moddervis (South Africa).

**Description:** Diagnosis: Lips plicate; dorsal fin concave with 9 to 10 branched rays; eyes in superolateral position; genital orifice very far from origin of anal fin; body cylindrical, slightly elongated; snout truncate with deep transverse furrow and fleshy appendix directed upwards (Ref. 26192).

Description: Body cylindrical; head with a prominent stepped snout, usually with rough star-shaped tubercles; mouth large; outer lips fleshy, inner rims with horny shaped edge, lower lip papillose; a single pair of barbels; gill openings restricted to sides of head (Ref. 52193). Dorsal fin with 3 unbranched and 9-10 branched rays; anal fin with 3 unbranched and 5 branched rays (Ref. 52193). Scales in lateral line 34-37, 12-16 around caudal peduncle; 5 scale rows between lateral line and dorsal fin (Ref. 52193).

**Maximum length:** 25.0 cm SL male/unsexed (Ref. 94784).

**Colour:** Olive-to yellow-green with a darker body band, larger specimens usually darker olive grey; eye distinctively red above (Ref. 52193). Dark lateral band present in young fish only (Ref. 4967).

**Distribution:** within the drainage basins of the Zambezi, Limpopo, Incomati and Usutu-Pongolo Rivers (Ref. 1440). In the Congo Basin, its distribution is limited to the middle and upper regions (Ref. 26192). Also known from East African rivers and the region of the Cap; south through the Zambezi system (Ref. 7248, 52193) and in the Coroca and Cuanza rivers in Angola (Ref. 11970).

**Notes:**

*Labeo kirkii* Boulenger, 1903

**Common names:**

**Description:** Diagnosis: Large lips plicate; dorsal fin concave with 10 branched rays; eyes in superolateral position; genital orifice far from the origin of the anal fin; snout largely pointed and very prominent with a deep transverse furrow and a fleshy appendix at the end; dark lateral brown band on the flanks (Ref. 26192).

Description: Body moderately compressed, its depth equal to head length and 4 times in total length (Ref. 1878). Caudal peduncle a little longer than deep (Ref. 1878). Head 2/3 as broad as long; snout obtusely pointed, strongly projecting, with a strong curved transverse groove above, its length 1/2 of

head length; eye supero-lateral, 6 times in head length, 2.5 times in interorbital width; width of mouth, with lips, 3/5 of head length; lips strongly developed, upper straight-edged, lower expanded and bordered in front by a fringe of papillae, the posterior border festooned; inner surface of lips with small papillae forming numerous transverse plicae; rostral flap large, with denticulate edge; snout with crater-like scars of large tubercles (Ref. 1878). Dorsal fin with 3 spines and 10-14 soft rays, equally distant from nostrils and from caudal fin, upper edge concave, longest ray a little longer than head length; anal fin with 3 spines and 5 soft rays, nearly reaching root of caudal fin; pectoral fin as long as head length, not reaching pelvic fin, the first ray of which falls below 4th branched ray of dorsal fin; caudal fin deeply emarginate (Ref. 1878, 26192). Scales on lateral line 38-41, 4 scales between lateral line and base of pelvic fin, 17-22 scales around caudal peduncle (Ref. 1878, 26192).

**Maximum length:** 24.0 cm TL male/unsexed (Ref. 2801).

**Colour:** Dark brown above, lighter beneath (Ref. 1878).

**Distribution:** Congo River basin in Democratic Republic of the Congo, and the Rovuma River on the Tanzania-Mozambique border (Ref. 26192).

**Notes:**

### *Labeo mesops* Günther, 1868

**Common names:** African carp (Malawi), Mkukuwawa (Tanzania), Nchila (Malawi, Tanzania), Ntuwa (Tanzania), Tana labeo (Kenya).

**Description:** Description: Body strongly compressed, its depth 3.50-4.25 times in total length; head 4-5 times in total length, its width 2/3 of its length (Ref. 1878). Caudal peduncle 1.5 times as long as deep (Ref. 1878). Snout rounded and not fleshy or warty; eye perfectly lateral, in middle of head, 4.5-5.0 times in head length; interorbital width 3/5 of head length; width of mouth, with lips, 2.5-3.0 times in head length; both lips with several rows of papillae, those of the outer row conical and forming a fringe; edge of rostral flap entire; a minute barbel hidden under folds of skin; tubercles on snout small (Ref. 4967). Dorsal fin with 3 spines and 10-12 soft rays, equally distant from centre or anterior border of eye and from caudal fin, notched, longest ray as long as head length; anal fin with 3 spines and 5 soft rays, not reaching caudal fin; pectoral fin as long as head length, not reaching pelvic fin, the first ray of which falls below 4th or 5th ray of dorsal fin; caudal fin emarginate, crescentic (Ref. 1878). Scales on lateral line 38-40, 4-5 scales between lateral line and pelvic fin; 16-18 scales around caudal peduncle (Ref. 1878).

**Maximum length:** 39.0 cm TL male/unsexed (Ref. 2801).

**Colour:** Olive-brown above, lighter beneath (Ref. 1878).

**Distribution:** present in Lake Malawi basin (Ref. 1878, 52161, 55909, 96560), Juba system (1440) and Rovuma River (Ref. 1440, 97286). Status Tana River population is uncertain (Ref. 52331). Reports from the Lufira River, Upper Congo River basin (Ref. 1440, 26190), are misidentifications of *Labeo rosae* (Ref. 96560).

**Notes:**

### *Labeo molybdinus* du Plessis, 1963

**Common names:** Kuluta (South Africa), Leaden labeo (South Africa, Zimbabwe), Loodvis (South Africa).

**Description:** Description: Body shape fusiform; snout usually without tubercles; mouth large, lips fleshy, lower lip papillose; a single pair of small barbels (Ref. 52193). Dorsal fin with 3 unbranched and 9-10 branched rays; anal fin with 2-3 unbranched and 5 branched rays (Ref. 52193). Scales in lateral line 38-41, 17-21 around caudal peduncle; 6 scale rows between lateral line and dorsal fin (Ref. 52193).

**Maximum length:** 38.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Greyish brown with iridescent green on upper scales, lighter below (Ref. 52193).

**Distribution:** rivers and lakes from the middle and lower Zambezi south to the Tugela system in KwaZulu-Natal, South Africa (Ref. 52193), including Limpopo, Incomati and Usutu-Pongolo systems (Ref. 1440), Lake Kariba in Zambezi system (Ref. 1440) and Lake Sibaya (Ref. 7248, 52193).

**Notes:**

### *Labeo rosae* Steindachner, 1894

**Common names:** Rednose labeo (South Africa, Zimbabwe), Rooineus-moddervis (South Africa).

**Description:** Description: Moderately deep bodied and compressed (Ref. 52193). Head small; mouth with papillose lips; a single pair of short barbels (Ref. 52193). Dorsal fin with 3 unbranched and 11-12 branched rays; anal fin with 3 unbranched and 5 branched rays; dorsal fin concave behind edge (Ref. 52193). Scales in lateral line 37-40, 16-20 around caudal peduncle (Ref. 52193).

**Maximum length:** 40.0 cm FL male/unsexed (Ref. 2801).

**Colour:** Variable, base colour golden green with silvery pink scales; eye reddish above; snout with red tubercles (Ref. 52193). Juveniles are silvery with a black caudal peduncle spot (Ref. 52193).

**Distribution:** lowveld reaches of Limpopo River, Incomati and Phongolo basins (Ref. 1440, 52193). Also known from Lufira River, upper Congo River basin, in Democratic Republic of the Congo (Ref. 96560).

**Notes:**

### *Labeo ruddi* Boulenger, 1907

**Common names:** Silver labeo (Namibia, South Africa, Zimbabwe), Silwer-labeo (South Africa), Silwer-moddervis (South Africa).

**Description:** Description: Slender bodied, caudal peduncle longer than deep, fins short (Ref. 52193). Mouth small; lips thin with small papillae; a single pair of short barbels sometimes present; snout usually without tubercles, if present small and grey or white in colour (Ref. 52193). Dorsal fin with 3 unbranched and 9-10 branched rays; anal fin with 3 unbranched and 5 branched rays (Ref. 52193). Scales in lateral line 40-44, 18-22 around caudal peduncle (Ref. 52193).

**Maximum length:** 30.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Usually plain silvery; tubercles on snout if present grey or white (Ref. 52193). Juveniles with a black spot on caudal peduncle (Ref. 52193).

**Distribution:** warmer lowveld reaches of the Limpopo and Incomati systems (Ref. 7248, 52193); also in the Cunene River (Ref. 7248, 52193, 120641).

**Notes:**

### *Labeobarbus marequensis* (Smith, 1841)

**Common names:** Grootskub-geelvis (South Africa), Kakumbi (Angola), Largescale yellowfish (FAO, AFS, South Africa, Zimbabwe), Lowveld largescale yellowfish (South Africa), Matemba (Malawi), Phupela (South Africa), Shortsnout chiselmouth (South Africa), Thanzwi (South Africa).

**Description:** Description: Mouth subterminal, variation in mouth-shape, including chisel-mouthed forms; lips extremely variable; 2 pairs of barbels; males and females develop small tubercles on top and side of head and on anal fin rays (Ref. 52193, 75045). Dorsal fin with 4 spines and 8-10 soft rays; anal fin with 3 unbranched and 5 branched rays; no ossified last simple dorsal-fin ray, flexible and height extremely variable, even within one population; dorsal fin in front of origin of pelvic fins (Ref. 52193, 75045). Scales large; scales in lateral line 27-33, 12 around caudal peduncle (Ref. 52193).

**Maximum length:** 47.0 cm TL male/unsexed (Ref. 52193).

**Colour:** Colour varies with water clarity from pale olive to bright golden brown (Ref. 52193). Juveniles silvery with dark blotches (Ref. 52193).

**Distribution:** widespread from the middle and lower Zambezi south to the Phongolo system (Ref. 7248, 52193). Also known from the Luachimo River, middle Congo River basin, in Angola (Ref. 11970, 120641). Reported as *Labeobarbus cf. marequensis* from the lower Congo (Ref. 94750); needs confirmation.

**Notes:**

### *Labeobarbus nelspruitensis* (Gilchrist & Thompson, 1911)

**Common names:** Incomati chiselmouth (South Africa), Inkomati-beitelbek (South Africa), Inkomati-bytelbek (South Africa).

**Description:** Description: Head broad, convex; mouth wide, inferior, with a straight, horny-edged lower jaw and a single pair of short, flattened barbels (Ref. 52193). Both sexes develop small white tubercles on head, especially on cheeks and snout, scales and anal fin (Ref. 52193). Dorsal fin with 4 unbranched and 8-9 branched rays; anal fin with 3 unbranched and 5 branched rays; primary dorsal-fin ray flexible; dorsal fin origin in advance of origin of pelvic fins (Ref. 52193). Scales longitudinally striated; 35-41 scales in lateral line, 13-16 around caudal peduncle (Ref. 52193).

**Maximum length:** 32.0 cm TL male/unsexed (Ref. 52193).

**Colour:** Dark olive above, light olive yellow to creamy white below (Ref. 52193).

**Distribution:** escarpment streams of the Incomati in Mozambique and Phongolo systems in South Africa (Ref. 2801, 52193).

**Notes:**

*Labeobarbus polylepis* (Boulenger, 1907)

**Common names:** Bushveld smallscale yellowfish (South Africa), Kleinskub-geelvis (South Africa), Smallscale yellowfish (AFS, South Africa).

**Description:** Description: Mouth subterminal with variable lips; two pairs of barbels (Ref. 52193). Both sexes develop small white tubercles on head, upper body scales and anal and dorsal fin rays (Ref. 52193). Dorsal fin with 4 spines and 8 soft rays; anal fin with 3 unbranched and 5 branched rays; primary dorsal ray segmented and flexible; dorsal-fin origin above or before origin of pelvic fins (Ref. 52193). Scales in lateral line 36-44, 14-18 scales around caudal peduncle (Ref. 52193).

**Maximum length:** 58.5 cm TL male/unsexed (Ref. 2801).

**Colour:** Adults dark olive green above, bronze on the sides and cream below, fins dark grey-green (Ref. 52193). Juveniles silvery with dark spots over body (Ref. 52193).

**Distribution:** restricted to the southern tributaries of the Limpopo, and the Incomati and Phongolo Rivers (Ref. 52193, 108777).

**Notes:**

*Labeobarbus pungweensis* (Jubb, 1959)

**Common names:** Pungwe chiselmouth (South Africa, Zimbabwe), Pungwe-beitelbek (South Africa).

**Description:** Description: Mouth inferior, wide, with horny scraping lower lip and one pair of very short barbels (Ref. 52193). Males with prominent white tubercles on snout, cheeks and scales (Ref. 52193). Dorsal fin with 4 unbranched and 9-10 branched rays; anal fin with 3 unbranched and 5 branched rays; primary dorsal-fin ray flexible; origin of dorsal fin in advance of pelvic fins (Ref. 52193). Scales longitudinally striated; 28-30 scales in lateral line, 12 scales around caudal peduncle (Ref. 52193).

**Maximum length:** 18.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Dark olive above, golden yellow-cream below (Ref. 52193). Juveniles are grey above, silvery on the sides with a black spot at end of caudal peduncle (Ref. 52193).

**Distribution:** Pungwe-Buzi rivers in Zimbabwe and Mozambique (Ref. 7248, 52193); also the Ruo, tributary to the lower Shire (Zambezi) in Malawi (Ref. 7248).

**Notes:**

## Danionidae

### *Engraulicypris brevianalis* (Boulenger, 1908)

**Common names:** Chisense (Congo Dem Rp), Mbala (Namibia), River sardine (FAO, Namibia, South Africa, Zimbabwe), Rivier-sardyn (South Africa), Riviersardyn (South Africa).

**Description:** Diagnosis: Caudal fin membrane clear towards vivid yellow at fork; anal fin extending two thirds of length of caudal peduncle; caudal peduncle moderately long; operculum entirely, not partially, shiny; body midline silver, not black; iris dark to light grey, not white; head with tubercles along lower jaw and lower head in breeding males; snout rounded, not pointed, darker dorsally; pelvic fin melanophores absent (Ref. 116496).

Description: Body elongated, somewhat fusiform, laterally compressed; maximum body depth at middle pelvic and pectoral fin origin; pre-dorsal profile straight or slightly convex behind head (Ref. 116496). Head length 20% of standard length, with tubercles along lower jaw and lower head; snout rounded, short, 30% of head length; mouth terminal, slightly crescent-shaped with long anterior side, reaching anterior border of orbit; nostrils large, level with dorsal margin of eye, separated from orbit by less than one orbit radius; tubular anterior naris short, adjacent to open posterior naris; eye lateral, visible from above and below, more prominent, diameter 35% of head length (Ref. 116496). First gill arch with 8+3 gill rakers on cerato- and epibranchial arms respectively; gill rakers long, pointed, widely-spaced; pharyngeal bones in three rows; pharyngeal teeth 4,3,2-2,3,4, robust and long, falcate (Ref. 116496). Fins large in relation to body size; dorsal fin closer to caudal fin than tip of snout; more or less above origin of anal fin; length 17% of standard length; posterior margin straight; rays soft; anterior-most branched fin ray longest; pectoral fins largest, reaching 1/2 to 3/4 distance to base of pelvic fin; fin lacking lobe at base; pelvic fins reaching 2/3 distance to base of anal fin, relatively small, pointed; fin lacking basal lobe; anal fin moderately long, extending 2/3 length of caudal peduncle; last unbranched ray longest; ano-genital opening at anterior of base of anal fin; caudal peduncle moderately long; caudal fin forked; lobes with slightly concave interior and extending into point; upper lobe shorter; dorsal fin with 2 unbranched and 7-8 branched rays; anal fin with 3 unbranched and 12-17 branched rays (Ref. 52193, 116496). Scales small to medium relative to body size; in regular rows; cycloid, slightly elongate; radially striate; base of anal fin lacking sheath scales; lateral line present, complete; dipping sharply towards ventral at tip of pectoral fin; joining midline at posterior of caudal peduncle; 45-59 scales along lateral line, 16-18 around caudal peduncle (Ref. 52193, 116496).

**Maximum length:** 7.5 cm SL male/unsexed (Ref. 52193).

**Colour:** Live colouration: body silver, without vertical bars or bands; dorsum pale brown with small dark brown melanophores, midline silver; snout darker dorsally; operculum entirely metallic silver; iris dark to light grey; dorsal fin membrane clear; rays clear with olive melanophores; fading towards tips; caudal fin membrane clear, vivid yellow at fork; rays light olive; rays lighter towards tips; melanophores small, dark, fading towards rear; anal fin rays clear; membrane clear; dark spotting above origin; melanophores dark olive fading towards tips; pectoral fin membranes clear; rays clear; first ray with few dark melanophores; pelvic fin rays clear; membrane clear (Ref. 116496). Preserved colouration: body and head white and silver with dark spotting sparse to densely packed towards caudal fin on midline and on dorsal surface; scales on dorsal surface lightly pigmented; ventral scale pigmentation as intense as dorsal surface; dorsal surface of head lightly pigmented; melanophores small, dark; clustered on rear of head, below orbit and on lips and snout; along midline, increasing in intensity to caudal fin; browner on dorsal surface above midline; forming a small, dark line above anal fin; operculum and posterior edge of orbit with silver sheen; membranes between fin rays clear;

pelvic fin clear membranes and rays; dorsal, caudal and pectoral fin membranes clear; rays with melanophores small, dark, widely-spaced; rays pale grey (Ref. 116496).

**Distribution:** Limpopo River, Incomati River, Pongolo River, Saint Lucia system and Mkhuze River in Botswana, Zimbabwe, South Africa, Swaziland and Mozambique (Ref. 116496). Also known from Okavango (Ref. 7248, 52193), upper Zambezi system (Ref. 7248, 52193) and middle Luapula (upper Congo River basin) in Zambia (Ref. 52959). Reports from Orange River below Augrabies Falls (Ref. 7248, 33857, 52193) refer to *Engraulicypris gariepinus* (Ref. 116496).

**Notes:**

*Engraulicypris ngalala* Riddin, Villet & Bills, 2016

**Common names:**

**Description:** Diagnosis: Operculum shiny only on ventral posterior edge and small area at posterior edge of orbit, not entire area; body midline black, not silver; head with tubercles along lower jaw and lower head in breeding males; snout rounded, not pointed; iris white to light grey, not dark grey, with a few melanophores; pelvic fin melanophores present, dark and widely dispersed (Ref. 116496).

Description: Body elongated, somewhat fusiform, laterally compressed; maximum body depth midway along body; pre-dorsal profile straight or slightly convex behind head (Ref. 116496). Head length 18% of standard length, with tubercles along lower jaw and lower head; snout rounded, short, 33% of head length; mouth terminal, slightly crescent-shaped with long anterior side; nostrils large, level with dorsal margin of eye, separated from orbit by less than one orbit radius; tubular anterior naris short, adjacent to open posterior naris; eye lateral, visible from above and below, more prominent, its diameter 43% of head length (Ref. 116496). First gill arch with 13+3 gill rakers on cerato- and epibranchial arms, respectively; gill rakers long, pointed, widely-spaced; pharyngeal bones in four rows; pharyngeal teeth 5,3,2,1-1,2,3,5, slender and long, falcate (Ref. 116496). Fins large in relation to body size; dorsal fin closer to caudal fin than tip of snout, more or less above origin of anal fin, length 14% of standard length; posterior margin straight, rays soft, anterior-most branched fin ray longest; dorsal and anal fin point parallel; pectoral fins largest, reaching 1/2 to 3/4 distance to base of pelvic fin, fin lacking lobe at base; pelvic fins reaching 2/3 distance to base of anal fin, relatively small, pointed, fin lacking a basal lobe; anal fin moderately long, extending 2/3 length of caudal peduncle, last unbranched ray longest; ano-genital opening at anterior of base of anal fin; caudal peduncle moderately long, depth half of length; caudal fin forked, lobes slightly concave interior lobe into point, upper lobe shorter (Ref. 116496). Scales small to medium relative to body size, in regular rows, cycloid, radially striate, rounded, slightly elongate; base of anal fin lacking sheath of enlarged, elongate scales; lateral line present, complete, dipping sharply towards ventral at tip of pectoral fin, joins midline at posterior of caudal peduncle, scale count 51-52 along lateral line, 14-16 around caudal peduncle (Ref. 116496).

**Maximum length:** 5.1 cm SL male/unsexed (Ref. 116496).

**Colour:** Live colouration: body and head white ventrally with pale brown dorsal surface; body midline black, colouration without vertical bars or bands; dorsal surface with ubiquitous melanophores; snout with dense dark spotting on tip; operculum shiny only on ventral posterior edge and small area at posterior edge of orbit; iris white to light grey with a few melanophores; dorsal fin membrane clear, rays clear with dark melanophores; caudal fin membrane clear to pale orange towards midline, rays dark brown to black, lighter towards edge, melanophores abundant

and fading towards tips; anal fin rays clear, membrane clear, pale orange spotting above origin, melanophores dark brown fading towards tips; pectoral fin membranes clear, rays clear, first ray with abundant dark melanophores; pelvic fin rays clear, membrane clear (Ref. 116496). Preserved colouration: body and head pale yellow with dark brown spotting on dorsal surface and midline; scales on dorsal surface lightly pigmented; ventral scale pigmentation less intense than dorsal; dorsal surface of head lightly pigmented; melanophores small, dark, grouped on rear of head, below orbit, and on lips and snout, along midline, increasing in intensity to caudal fin, browner on dorsal surface, darkening between origin of pectoral and dorsal fin, forming small dark line above anal fin; operculum and posterior base on orbit with silver sheen; membranes between fin rays white to clear towards end; pelvic fin clear membranes with melanophores on first ray; dorsal, caudal and pectoral fin rays with melanophores small, widely-spaced, fading towards edges, pale brown to clear (Ref. 116496).

**Distribution:** Rovuma River system in Mozambique (Ref. 116496) and Lake Chiuta in Malawi (Ref. 116496).

**Notes:**

#### *Opsaridium peringueyi* (Gilchrist & Thompson, 1913)

**Common names:** Banded minnow (South Africa), Gebande ghieliemientjie (South Africa), Sebravis (South Africa), Southern barred minnow (South Africa), Suidelike balkghieliemientjie (South Africa), Zebra fish (South Africa).

**Description:** Description: Body spindle-shaped and streamlined (Ref. 52193). Head pointed; eyes large; mouth large; lower jaw extending to below orbit (Ref. 52193). Mature males with tubercles on lower jaw, paired fins and on scales behind the pelvic fins (Ref. 52193). Dorsal fin with 2-3 unbranched and 8-9 branched rays; anal fin with 3 unbranched and 11-13 branched rays; dorsal-fin origin behind pelvic fins; anal fin large, elongated in front in males (Ref. 26673, 52193). Scales in lateral line 40-44, usually 14 scales around caudal peduncle; lateral line dips to lower half of body (Ref. 52193).

**Maximum length:** 9 cm SL male/unsexed (Ref. 52193).

**Colour:** Silvery with 7-9 blue-black bars along sides; black hind edge and corner to dorsal fin (Ref. 52193). Males become flushed with orange-red on head, body and fins in breeding dress (Ref. 52193).

**Distribution:** Save, Limpopo, Incomati, Umbeluzi and Phongola River systems (Ref. 26673). Generally confined to zones below 1200 m altitude along the lower escarpment and Lowveld of the Northern Province and Mpumulanga, Swaziland and Kwazulu/Natal (Ref. 26673). A relict population in Lephalala River, Limpopo system, in the Waterberg, Northern Province (Ref. 26673).

**Notes:**

#### *Opsaridium tweddleorum* Skelton, 1996

**Common names:** Dwarf sanjika (Mozambique, South Africa).

**Description:** Description: Body fusiform (Ref. 52193). Head pointed, with large terminal mouth; lower jaw extends to below mid-orbit (Ref. 52193). Dorsal fin with 2 unbranched and 8-9 branched

rays; anal fin with 3 unbranched and 13 branched rays; dorsal fin nearer base of caudal fin than tip of snout, dorsal fin origin behind pelvic fins, before anal fin; caudal fin forked; anal fin with anterior rays extended (Ref. 52193). Scales in lateral line 45-49, 16-17 around caudal peduncle; lateral line dips to lower half of body (Ref. 52193).

**Maximum length:** 11 cm SL male/unsexed (Ref. 52193).

**Colour:** Pale bluish grey with 11-13 darker upright bars along body; dorsal fin with a distinct black band arching from leading edge to lower hind corner (Ref. 52193). Males have prominent tubercles on head and fins (Ref. 52193).

**Distribution:** western affluent perennial rivers of Lake Malawi and tributaries of Shire River, lower Zambezi (Ref. 26673, 52193).

**Notes:**

### *Opsaridium zambezense* (Peters, 1852)

**Common names:** Balk-ghieliemientjie (Namibia, South Africa), Balkghieliemientjie (South Africa), Barred minnow (Namibia, South Africa, Zimbabwe, Zambia), Lumbungo (Angola), Lusese (Angola), Lutemba (Angola), Mbala (Namibia), Muka (Angola), Mwota (Angola), Northern barred minnow (Namibia), Sakunge (Angola), Sese (Angola).

**Description:** Diagnosis: With striking vertical bars, lateral line curving down towards the ventral surface of the body and a large curved mouth (Ref. 13337). The dorsal fin is rounded; barbels absent (Ref. 13337).

Description: Body slender, spindle-shaped, with narrow caudal peduncle (Ref. 52193). Head pointed; eyes large; mouth large, extending to below orbits (Ref. 52193). Mature males with conical tubercles on tip of snout, lower head and jaw, scales behind the pelvic fins and on the fins (Ref. 52193). Dorsal fin with 3 unbranched and 8-10 branched rays; anal fin with 2-3 unbranched and 11-14 branched rays; dorsal-fin origin behind pelvic fins; caudal fin deeply forked; anal fin of males expanded in front (Ref. 52193). Scales in lateral line 37-44, usually 14 around caudal peduncle; lateral line dips to lower half of body (Ref. 52193).

**Maximum length:** 12.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Predominantly silvery with greenish-olive tinge and up to 12 split or paired blue-black bars along body (bars increase with growth), black outer membranes and hind corner to dorsal fin (Ref. 52193). Mature males become infused with pink-red on body and fins (Ref. 52193).

**Distribution:** Zambezi, Okavango, Pungwe, Limpopo, and Buzi River systems southwards to the Pongolo River; absent in Kafue and Cunene Rivers (Ref. 7248, 52193). Also in the Luapula River system in Democratic Republic of the Congo and Zambia; records from southern tributaries of the Congo (Kasai, Luachimo, Chiumbe, Kwilu) may represent an other, unidentified species (Ref. 26673).

**Notes:**

## Distichodontidae

### *Distichodus mossambicus* Peters, 1852

**Common names:** Nkupe (Malawi, South Africa, Zambia), Tshikanga (Angola), Xeréwa (Mozambique).

**Description:** Diagnosis: snout extended; mouth terminal; head about 4 times in fork length; juveniles with 6-7 dark bars (Ref. 52193).

Description: scales ctenoid, 67—70 in lateral line; body deep and compressed; adipose fin with scales, caudal deeply forked, largely covered by scales; head depressed, nape rising steeply with concave predorsal profile; mouth terminal; 2 rows of bicuspid teeth; dorsal fin with 4 unbranched and 19-23 branched rays; anal fin with 3-4 unbranched and 10-12 branched rays (Ref. 52193).

**Maximum length:** 57.0 cm SL male/unsexed (Ref. 52193).

**Colour:** adults deep olive, almost black; juveniles silvery, with 6—7 broad vertical dark bars (Ref. 52193).

**Distribution:** Middle and Lower Zambezi, including Lake Kariba, and Pungwe and Buzi rivers in Mozambique (Ref. 52193). Reports from Congo River basin refer to other species of *Distichodus* (Ref. 96324, 122092).

**Notes:**

### *Distichodus petersii* Pfeffer, 1896

**Common names:** Mbapale (Tanzania), Tungu (Tanzania), Tungwi (Tanzania).

**Description:** Description: Depth of body 2.16-2.50 times in total length; length of head 3.66 times in total length (Ref. 1878). Caudal peduncle much deeper than long (Ref. 1878). Head a little longer than deep, twice as long as broad; snout rounded, not compressed, projecting little beyond mouth, as long as eye, which is 3.5 times in length of head and about 1.5 times in interorbital width; maxillary extending to below nostrils; teeth in 2 series in each jaw, outer series containing 22-24 teeth (Ref. 1878). Dorsal fin with 22 rays, including 4-5 unbranched rays, equally distant from occiput and from caudal, its base 2.5 times its distance from adipose fin; anal fin with 16 rays, including 3-4 unbranched rays; pectoral fin 2/3 length of head; caudal forked, lobes obtusely pointed (Ref. 1878). Scales in lateral series 68-75, 13-14 scales between lateral line and root of pelvic fin (Ref. 1878).

**Maximum length:** 45.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Silvery, back darker (Ref. 1878). Large black shoulder spot, on the lateral line above the pectoral fin; dorsal fin spotted (Ref. 1878, 4967).

**Distribution:** Ruvu, Rufiji and Ruvuma systems (Ref. 4967, 7094).

**Notes:**

### *Distichodus rufigiensis* Norman, 1922

**Common names:**

**Description:** Description: Depth of body 2.25-2.50 in length; length of head 4.25-4.50 (Ref. 130265). Caudal peduncle much deeper than long (Ref. 130265). Head as long as deep, about twice as long as

broad; snout not compressed, projecting beyond mouth, its length 1-1.33 times diameter of eye, which is 3.25-4.00 in length of head and 1.33-2.00 in interorbital width; maxillary extending to below nostril; teeth in 2 series in both jaws, 20-25 in outer series of upper jaw (Ref. 130265). Gill-rakers on lower part of anterior arch 15 (Ref. 130265). Dorsal fin with 19-20 rays, including 4 unbranched rays, equally distant from occiput and caudal fin, or a little nearer latter; longest rays distinctly longer than head; adipose fin moderately large, separated from rayed dorsal fin by a space equal to 2/3 the base of the latter; anal fin with 14-15 rays, including 3 unbranched rays, base 2/3 base of dorsal fin; pectoral fin 3/4 to 4/5 length of head, shorter than pelvic fins; caudal fin forked, upper lobe pointed and slightly longer than lower, which is rounded (Ref. 130265). Scales in a longitudinal series 62-65; 11-12 scales from origin of dorsal fin to lateral line (Ref. 130265).

**Maximum length:** 17.0 cm TL male/unsexed (Ref. 7094).

**Colour:** With 10-14 more or less distinct but broken vertical bars on sides of body, ending below lateral line; a black spot on caudal peduncle; caudal fin with a somewhat broad pale margin; dorsal fin spotted, with numerous black dots (Ref. 4967, 130265).

**Distribution:** Wami, Rufigi and Ruvuma systems (Ref. 7094).

**Notes:**

### *Distichodus schenga* Peters, 1852

**Common names:** Chenga (Mozambique), Chessa (South Africa, Zimbabwe, Zambia), Nchenka (Malawi), Schenga (AFS).

**Description:** Diagnosis: snout short; mouth inferior; head about 5 times in fork length; juveniles with 12-16 dark vertical bars (Ref. 52193).

Description: scales ctenoid; adipose and caudal fins covered by scales; lateral line straight; body deep, compressed, nape rising steeply, with straight or convex profile; head small, pointed; mouth inferior, with 2 rows of bicuspid teeth; dorsal fin with 4 unbranched and 19-23 branched rays; anal fin with 4 unbranched and 10-12 branched rays (Ref. 52193).

**Maximum length:** 50.0 cm SL male/unsexed (Ref. 52193).

**Colour:** adults silvery olive with sooty dorsal, anal and caudal fins; pectorals and pelvics yellowish; juveniles silvery, with 12—16 dark vertical bars (usually obscure) and a prominent dark spot at the base of the caudal fin (Ref. 52193).

**Distribution:** middle and lower Zambezi drainages, Pungwe and Buzi rivers in Mozambique (Ref. 52193, 122090).

**Notes:**

## Eleotridae

### *Eleotris fusca* (Forster, 1801)

**Common names:** Boridoa (Madagascar), Borodoa mainty (Madagascar), Brown gudgeon (Kenya), Brown sleeper (old FAO name), Cabot d'eau douce (Mauritius), Cabot noir (Comoros, Madagascar, Mauritius, Réunion, Rodriguez), Donker slaper (South Africa), Dusky sleeper (FAO, Kenya, South Africa), Eléotris brun (Comoros, Madagascar, Mauritius, Réunion, Rodriguez), Endormi (Mauritius), Tohomainty (Madagascar), Vumbika (Kenya).

**Description:** Diagnosis: Longitudinal line scales 57-68; preopercular spine present; 8-10 gillrakers on lower part of first branchial arch (Ref. 5493, 79840). Dark brown to black in color; horizontal lines on body; young with spotted fins (Ref. 5493).

Description: Head depressed; mouth large, reaching to below middle of the eye; cheek scaled to below the eye (Ref. 52193). Dorsal fin with 7 spines and 8 soft rays; anal fin with 1 spine and 8 soft rays (Ref. 52193). Scales in lateral series 57-68 (Ref. 52193, 79840).

**Maximum length:** 26.0 cm TL male/unsexed (Ref. 5493).

**Colour:** Dark brown to black, with a series of horizontal lines along body (Ref. 52193).

**Distribution:** Indo-West Pacific: throughout the Indo-Pacific, from east African coasts to Philippines, Melanesia and Polynesia (Ref. 6802); east African coast south to Transkei (Ref. 52193).

**Notes:**

### *Eleotris mauritiana* Bennett, 1832

**Common names:** Cabot noir (Comoros, Mauritius, Réunion, Seychelles, Rodriguez), Makanbale latet plat (Comoros, Mauritius, Réunion, Seychelles, Rodriguez), Widehead sleeper (South Africa), Wyekop-slaper (South Africa).

**Description:** Description: Maxilla reaches to below front half of eye; cheek scaled to below middle of eye (Ref. 5493). Dorsal fin with 7 spines and 8 soft rays; anal fin with 1 spine and 8 soft rays; pectoral fin with 15-18 rays (Ref. 5493). Scales in lateral series 56-65 (Ref. 5493).

**Maximum length:** 25.0 cm TL male/unsexed (Ref. 48660).

**Colour:** Head and body dark brown to black, often with numerous light longitudinal lines and irregular mottlings on body; fins dark (Ref. 5493).

**Distribution:** Mozambique to the Umtata River in Transkei, South Africa (Ref. 5493); also in Seychelles, Madagascar and Mauritius (Ref. 5493).

**Notes:**

### *Eleotris melanosoma* Bleeker, 1853

**Common names:** Breëkop-slaper (South Africa), Broadhead sleeper (South Africa).

**Description:** Description: Head depressed; mouth large and reaching to below rear half of the eye; cheek scales not below the eye (Ref. 52193). Dorsal fin with 7 spines and 8 soft rays; anal fin with 1 spine and 8 soft rays (Ref. 52193). Scales in lateral series 46-56 (Ref. 52193).

**Maximum length:** 26.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Body dark brown to black, sometimes with horizontal lines along body (Ref. 5493, 52193). Fins spotted in young, black in large individuals (Ref. 5493).

**Distribution:** Pacific Ocean: restricted; including Indonesia, the Philippines, Taiwan, Papua, Papua New Guinea, Solomon Is. and New Caledonia (Ref. 125668). African east coast to Transkei, South Africa (Ref. 52193).

**Notes:**

*Eleotris soaresi* Playfair, 1867

**Common names:**

**Description:** Diagnosis: second, third and fourth suborbital free neuromast rows on cheek extending ventrally past horizontal row 'd' ('2.3.4' pattern), row 'os' connected with row 'oi' at ventro-posterior margin of operculum ('closed' pattern); 17-18 pectoral fin rays; 50-56 scales in lateral series, and 12-13 scales in zigzag series (Ref. 123271). Differs from the other species of Indian Ocean with a '2.3.4' pattern in having fewer scales in lateral series, 50-56 vs. 59-64, and in zigzag series, 12-13 vs. 13-15; moreover, differs from *E. valadei* in having fewer scales in transverse forward series, 22-24 vs. 27-30, and predorsal series, 39-43 vs. 45-50, and from *E. diamsoi* in having 17-18 pectoral fin rays vs. 16 (Ref. 123271).

Description: body elongated; body depth at anus 20-21% of standard length and the caudal peduncle depth is 15% of standard length; predorsal length 47% of standard length and preanal length 65-69% of standard length (Ref. 123271). The head 33-37% of standard length is broad and depressed, the snout is pointed; eyes high on head; the mouth is large, as the jaw length is 11-13% of standard length, and oblique, the posterior margin of upper jaw reaches the vertical through the two thirds of the eye; upper and lower jaws with multiple rows of small inwardly curved teeth (Ref. 123271). Dorsal fins VI-I,8-9; first dorsal fin spine separate from and same height as second dorsal fin spine; spines not elongated; anal fin I,8-9 and directly opposite to second dorsal fin; pelvic fins separate, I,5; pectoral fins 17-18; caudal fin rounded with 15 branched rays (Ref. 123271). Cycloid scales on top of head, nape, cheek, operculum, pectoral fin base, prepelvic region, and abdomen; ctenoid scales covering flanks; no lateral line canals; 50-56 scales in lateral series; 39-43 in predorsal series, 15-18 in transverse back series, 22 in transverse forward series and 12-13 in zigzag series (Ref. 123271). A downward pointing spine at the posterior margin of the preoperculum is covered with skin; gill opening is moderately broad, extending to below the preoperculum (Ref. 123271). Adults with five transverse suborbital free neuromast rows of which second, third and fourth suborbital free neuromast rows on cheek extend ventrally past horizontal row 'd' ('2.3.4' pattern); row 'os' connected with row 'oi' at ventro-posterior margin of operculum ('closed' pattern) (Ref. 123271). Urogenital papilla elongated and tapered in males (Ref. 123271).

**Maximum length:** 10.6 cm SL male/unsexed (Ref. 47855).

**Colour:** Colour in life: body dark brown, dorsal and anal fin punctulated with black (Ref. 579, 123271). Colour in preservation: head, preoperculum, body, abdomen and fins dark brown; gular and isthmus beige or dark brown depending on the specimen (Ref. 123271).

**Distribution:** Mozambique (Ref. 579, 123271).

**Notes:**

## Elopidae

### *Elops machnata* (Forsskål, 1775)

**Common names:** Fateixa (Mozambique), Guinée saumon (old FAO name, Djibouti), Hanisi (Tanzania), Hanithi (Tanzania), Ilweyn (Somalia), Kihanisi (Tanzania), Ladyfish (South Africa), Lingolingo (Madagascar), Lubine male (Mauritius), Malacho salmón (old FAO name), Mkizi (Tanzania), Moanjy (Madagascar), Mtsumbwi (Comoros), River skipjack (South Africa), Springer (AFS, South Africa), Tempounder (Djibouti), Tenpounder (FAO, South Africa).

**Description:** Description: Body depth 12-19% of standard length; head length 21-23% of standard length (Ref. 3968). Upper jaw reaching well behind eye; upper jaw length 11-16% of standard length; lower jaw length 11-17% of standard length; teeth on jaws villiform (Ref. 3968, 4832). Gill rakers on upper limb 7-9, gill rakers on lower limb 13-15; depending on size, as in some juveniles some rudiments have not yet developed, but by 60 cm total length all rudiments have grown into rakers (Ref. 3968). Dorsal fin with 22-27 rays; anal fin with 15-18 rays; pectoral fin with 17-18 rays (Ref. 3968). Scales on lateral line 90-103 (Ref. 3968, 58304).

**Maximum length:** 118 cm FL male/unsexed (Ref. 40637); common length: 50.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Head and body silvery; tip of dorsal fin blackish (Ref. 58304).

**Distribution:** Indo-Pacific: Mossel Bay in South Africa, to the Red Sea and India, possibly to western Pacific (Ref. 3968).

**Notes:**

## Gerreidae

### *Gerres filamentosus* Cuvier, 1829

**Common names:** Blanche fil (FAO), Chaa (Tanzania), Melanúria filamentosa (Mozambique), Mojarra de hebra (old FAO name), Rayasha (Global), Sweepvin-plooibek (South Africa), Threadfin pursemouth (South Africa), Tsarasaina (Madagascar), Tsaratsaina (Madagascar), Whipfin silver-biddy (FAO), Whipfin silverbiddy (old FAO name).

**Description:** Description: Body depth maximum 2.0-2.5 times in standard length in fish longer than 9 cm standard length, 2.5-3.0 times in standard length in smaller fish (Ref. 4372, 90102). Maxillary reaches beyond level of eye anterior edge (Ref. 48635, 90102). Dorsal fin with 9 spines and 10-11 soft rays; anal fin with 2-3 spines and 7-8 soft rays; second dorsal-fin spine filamentous and very long, 1.7-2.0 times in standard length; pectoral fins reach beyond level of anal fin origin; caudal fin large and forked deeply (Ref. 4372, 4967, 48635, 90102). Scales on lateral line 43-47, and 2-3 scales on caudal fin; 4.5-5.5 scale rows between lateral line and base of 5th dorsal spine (Ref. 4372, 90102).

**Maximum length:** 39.0 cm TL male/unsexed (Ref. 116875); common length : 15.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Body silvery with 7-10 vertical series of ovoid bluish spots on sides, coalesced as bars in juveniles (Ref. 4372, 90102).

**Distribution:** Indo-West Pacific: East Africa and Madagascar to Japan and Australia; New Caledonia (Ref. 26587) and Vanuatu (Ref. 13300). Enters rivers and lakes in Madagascar and the east coast of Africa. Not in the Middle East (Ref. 103159).

#### Notes:

### *Gerres mozambiquensis* Iwatsuki & Heemstra, 2007

#### Common names:

**Description:** Diagnosis: body depth 46-47% of standard length, distinctly more than head length; dorsal fin with 9 spines and 10 soft rays; anal fin with 3 spines and 7 soft rays; pored lateral-line scales 43-44; 4-4.5 scales between fifth dorsal-fin spine base and lateral line; 5.5-6.5 scales above lateral line, 9.5-10.5 below; scales on dorsum of head extend to or slightly beyond vertical at front edge of orbit, without two converging rows of minute scales within larger scales, premaxillary groove at front of interorbital area not scaly; gill rakers on first gill arch 12-13; second dorsal-fin spine longest, its length about twice orbit diameter; second anal-fin spine robust, ratio of greatest width of second spine to greatest width of third spine 1.7-1.8; margin of inter-spinous membranes of second to fifth dorsal-fin spines black; caudal fin lobes short, length of upper lobe equal to head length; body with six to eight indistinct dark vertical bars, bar width about half pupil diameter; supraneural bones three (Ref. 75744).

Description: Body deep, compressed; rostrum-occipital profile of head almost straight; predorsal length clearly less than body depth (Ref. 75744). Orbit diameter 2.4-2.7 times in head length, slightly greater than bony interorbital width; snout length less than orbit diameter; maxilla reaching to vertical at front margin of eye; mandibular profile weakly concave; preopercle edge smooth, rounded angle slightly less than 90° (Ref. 75744). Dorsal fin with 9 spines and 10 soft rays; anal fin with 3 spines and 7 soft rays; pectoral fin with 15-16 rays, its length clearly greater than head length, fin tip reaching between verticals at anus and anal-fin origin; pelvic fins reach anus (Ref. 75744).

Head and body scales cycloid; pored lateral-line scales 43-44, 5.5-6.5 scales above lateral line, 9.5-10.5 scales below lateral line; no scales on preopercle flange (Ref. 75744). Gill rakers short, rakers of upper series shorter than lower rakers, anteriormost raker of lower series usually longer than uppermost raker (Ref. 75744).

**Maximum length:** 11.9 cm SL male/unsexed (Ref. 75744);

**Colour:** Head and body buff dorsally, becoming tinged with silver ventrally; fins hyaline except for blackish margin on front half of spinous dorsal fin; inner margin of caudal-fin lobes slightly darkened (Ref. 75744).

**Distribution:** only known from the Larde Estuary in Mozambique (Ref. 75744).

**Notes:**

## Gobiidae

### *Acentrogobius nebulosus* (Forsskål, 1775)

**Common names:** Shadow goby (old FAO name, South Africa), Skaduwee-dikkop (South Africa).

**Description:** Diagnosis: Characterized by pale grey body colour with three large dark brown blotches on side; head and body with faint brown scribbling; elongate and filamentous second and third dorsal spines; rounded caudal fin, slightly shorter than head; longitudinal scale series 26-30; head without scales; ctenoid body scales except cycloid on breast, base of pectoral fin and anterior part of abdomen; midline of nape without scales or 1-2 scales just before origin of dorsal fin; depth of body 3.2-3.4 times in standard length (Ref. 2798, 90102).

Description: Outwardly-curved enlarged tooth at each side of lower jaw (Ref. 2798). Dorsal fin with 7 spines and 9 soft rays; anal fin with 1 spine and 9 soft rays; pectoral fin with 18-19 rays (Ref. 2798). Scales on lateral line 26-30; midline of nape naked (Ref. 2798).

**Maximum length:** 18.0 cm SL male/unsexed (Ref. 2798).

**Colour:** Pale grey body colour with three large dark brown blotches on side; head and body with faint brown scribbling (Ref. 90102). Margins of median fins often black (Ref. 2798).

**Distribution:** Indo-West Pacific: East Africa, south to Durban in South Africa (Ref. 2798), through Indonesia to Micronesia, north to China and the Ryukyu Islands (Ref. 559), south to northern Australia.

**Notes:**

### *Awaous aeneofuscus* (Peters, 1852)

**Common names:** Freshwater goby (old FAO name, Kenya, South Africa, Tanzania, Zimbabwe), Toho (Madagascar), Tohobaka (Madagascar), Tohoborivava (Madagascar), Tohofasina (Madagascar), Varswater-dikkop (South Africa).

**Description:** Diagnosis: palate without teeth; no spines on preopercle; dorsal fin with normal first spines; fleshy process below opercle; caudal fin not longer than head; no scales on opercle (Ref. 79840). Greenish with blotches on back and side (Ref. 2798).

**Maximum length:** 26.0 cm SL male/unsexed (Ref. 4967).

**Colour:** generally olive green on back, paler on flanks, and greenish-greyish ventrally; brownish spots on back and flanks; caudal fin with small brown spots; brownish bands between mouth and eyes (Ref. 79840).

**Distribution:** East coast rivers and estuaries south to Algoa Bay. Also known Somaliland (Gulf of Aden including Somalia, Djibouti, and southeastern Ethiopia) and Madagascar (Ref. 4343).

**Notes:**

### *Coryogalops william* (Smith, 1948)

**Common names:** Kaalpens goby (South Africa), Kaalpens-dikkop (South Africa).

**Description:** Description: Prepelvic and midline of belly naked (Ref. 2798). Gill rakers on upper limb 3, gill rakers on lower limb 5-6 (Ref. 2798). Dorsal fin with 7 spines and 10-11 soft rays; anal fin with 1 spine and 9 soft rays; pectoral fin with 22-23 rays (Ref. 2798). Scales on lateral line 31-34 (Ref. 2798).

**Maximum length:** 6.2 cm TL male/unsexed (Ref. 11344).

**Colour:** Colour variable, usually dark with darker scale edges; dark crescent at caudal-fin base (Ref. 2798).

**Distribution:** Western Indian Ocean: from Xora River mouth, South Africa, to Inhaca Islands, Mozambique (Ref. 4343).

**Notes:**

### *Croilia mossambica* Smith, 1955

**Common names:** Burrowing goby (FAO, South Africa), Kaal-dikkop (South Africa), Naked goby (South Africa).

**Description:** Description: Head and body compressed and elongated; snout steeply sloping; eyes large and projecting (Ref. 52193). Dorsal fin with 6 spines and 11-12 soft rays; anal fin with 12 soft rays; dorsal fin separated or partly connected by membrane; caudal fin pointed (Ref. 2798, 52193). Scales absent (Ref. 52193).

**Maximum length:** 6.4 cm TL male/unsexed (Ref. 52193).

**Colour:** Translucent, with brown spots on dorsal fin and head; caudal fin of males with vertical bars, females with a single horizontal bar on the lower edge (Ref. 52193). Dark bar under eye; tan in colour, with dark spots above; sides with 6-10 vertical bars; large specimens with black margined dorsal and anal fins (Ref. 2798).

**Distribution:** coastal lakes and estuaries in KwaZulu-Natal, South Africa, and southern Mozambique (Ref. 2798, 52193); also recorded from Madagascar (Ref. 4343).

**Notes:**

### *Drombus triangularis* (Weber, 1909)

**Common names:**

**Description:** Description: Gill rakers 2+1+7 (Ref. 130283). Dorsal fin with 7 spines and 9 soft rays; anal fin with 1 spine and 7-8 soft rays; pectoral fin with 18-20 rays; no free pectoral-fin rays; 2nd-4th dorsal spines elongated to head length (Ref. 4967, 130283). Scales on lateral line 32-34; transversal scales 9-10; predorsal scales 13-14; predorsal scales almost to eyes, none on opercle (Ref. 130283).

**Maximum length:** 7.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Brownish, mottled, dark blotch on upper pectoral-fin base, white area in front, this yellow in life (Ref. 130283).

**Distribution:** Indo-West Pacific: East Africa, from Delagoa Bay, Mozambique, northwards, to western Pacific (Ref. 4343).

**Notes:***Favonigobius reichei* (Bleeker, 1854)

**Common names:** Tropical sand goby (old FAO name, South Africa, Tanzania), Tropiese sand-dikkop (South Africa).

**Description:** Description: Body depth 6.1 times in standard length (Ref. 90102). Snout gently sloping (Ref. 2798). Dorsal fin with 7 spines and 8 soft rays; anal fin with 1 spine and 7-8 soft rays; pectoral fin with 16-17 rays; second dorsal spine forming elongate, threadlike filament; pelvic fins united medially; presence of pelvic frenum; caudal fin rounded (Ref. 2798, 90102). Scales on lateral line 25-27; ctenoid scales, except cycloid on breast and pectoral fin base; predorsal scales 0-4, scale absent on remainder of head (Ref. 2798, 90102).

**Maximum length:** 8.3 cm TL male/unsexed (Ref. 7050).

**Colour:** Body with numerous small spots; sides with 4-5 slightly enlarged groups of black spots, last spot on caudal peduncle often paired, without a vertical bar at caudal base; median fins spotted; paired fins pale (Ref. 2798). Large males with dusky 1st dorsal, anal and pelvic fins (Ref. 2798).

**Distribution:** Indo-West Pacific: East Africa to the Philippines (Ref. 7050), north to Japan (Ref. 559), south to northern Australia (Ref. 33390).

**Notes:***Glossogobius callidus* (Smith, 1937)

**Common names:** Gobie comorien (Comoros, Madagascar, Seychelles), River goby (South Africa), Rivier-dikkop (South Africa).

**Description:** Description: Head depressed; snout elongate (Ref. 52193). Dorsal fin with 7 spines and 8-10 soft rays; anal fin with 1 spine and 7-9 soft rays; pectoral fin with 14-19 rays; caudal fin pointed (Ref. 52193). Scales in lateral series 28-32; nape partially naked, without scales; predorsal scales 0-13 (Ref. 52193).

**Maximum length:** 12.0 cm TL male/unsexed (Ref. 52193).

**Colour:** Translucent brown with black X-spots along sides; black spot on hind membrane of first dorsal fin; soft dorsal with black and yellow spots and bars (Ref. 52193). Dark stripe from eye to upper lip; vertical bar or spot at caudal base (Ref. 2798).

**Distribution:** east coast rivers from Mozambique south to the Swartvlei region of the Western Cape, South Africa (Ref. 52193).

**Notes:***Glossogobius giuris* (Hamilton, 1822)

**Common names:** Bar-eyed goby (Kenya), Boridoo fotsy (Madagascar), Chokole (Kenya), Flathead goby (Kenya), Gangetic tank goby (old FAO name), Gobie (Réunion), Gobie giurus (Madagascar),

Réunion, Seychelles), Jumburu (Kenya), Kijumburu (Kenya), Loche (Réunion), Tank goby (FAO, Kenya, South Africa, Zimbabwe), Tenk-dikkop (South Africa).

**Description:** Description: Head flattened, depressed; mouth large, lower jaw projecting (Ref. 4967, 52193). Dorsal fin with 7 spines and 9 soft rays; anal fin with 1 spine and 8 soft rays; pelvic fins jointed but attached to the body only from their anterior part; caudal fin bluntly or sharply pointed (Ref. 48660, 52193). Scales in lateral series 29-33; nape with visible scales; 15-19 predorsal scales (Ref. 52193).

**Maximum length:** 50.0 cm SL male/unsexed (Ref. 4967); common length: 11.3 cm SL male/unsexed (Ref. 35840).

**Colour:** Translucent brown with dark brown or black spots and blotches along back and forming a series along midbody; with 5 to 6 dark and rounded spots on its sides; some specimens living on dark substrates can be very dark also, some living on very light substrates show an ivory coloration; dorsal fins are light with small brownish spots forming longitudinal stripes; pelvic fins are grey; pectorals and caudal are grey and often hyaline (Ref. 2798, 48660, 52193).

**Distribution:** Africa to Oceania: Red Sea and East Africa, south to Transkei in South Africa, and most inland freshwater bodies over the Indian Ocean and western Pacific (Ref. 4343, 52193). Common in coastal and estuarine waters from austral Africa and Madagascar to India and south of China.

**Notes:**

### *Gobius bontii* Bleeker, 1849

**Common names:**

**Description:** Description: Eye 3.6 times in head length, equals snout; eyes high up, close together, covered by skin; several mucus canals along cheeks; front nostril small tube above lip, hinder a pore close before eye; mouth moderate, maxilla to below front of pupil, jaws subequal; in each jaw a band of small teeth, in lower outer series larger in front, in upper outer series larger, front teeth larger; tongue feebly bilobed (Ref. 404). Gill opening restricted, hardly surpass pectoral fin base; gill rakers 2+1+6, gill rakers moderate (Ref. 404). Dorsal fin with 7 spines and 9-10 soft rays; anal fin with 1 spine and 8 soft rays; pectoral fin with 17 rays; 2nd-5th dorsal spines subequal, little more than 1/2 of body depth, soft rays higher, subequal, 0.66-1.00 times body depth, anal slightly lower; pectoral fin rounded, to above vent; pelvic fin 1.2 times in head, fraenum strong, almost to vent; caudal fin rounded (Ref. 404). Scales on lateral line 36; transversal scales 12; scales ctenoid behind, become smaller and cycloid below 1st dorsal fin, on nape small, embedded, reach 2/3 to eyes; scales on belly, pectoral fin base and chest cycloid, head naked (Ref. 404).

**Maximum length:** 7.2 cm TL male/unsexed (Ref. 4343).

**Colour:** Dusky yellowish, with dark marks (Ref. 404).

**Distribution:** Indo-West Pacific: Bazaruto, Mozambique (Ref. 404), to India and the central and western tropical Pacific (Ref. 4343).

**Notes:**

### *Kraemeria samoensis* Steindachner, 1906

**Common names:** Lever disab (Seychelles), Poisson des sables (Seychelles), Sand dart (South Africa), Sandspies (South Africa).

**Description:** Diagnosis: Characterized by translucent whitish colour with brown speckling and reddish smudge on occipital region; broadly separated spinous and soft portions of dorsal rays, fully connected by membrane, a broader gap between fifth and sixth dorsal spines compared to gap between previous spines; fourth to seventh pectoral-fin rays branched; pelvic fins separated to base with branched rays; 10 cirri on lower edge of gill cover instead of scalloped margin; depth of body 8.5-10.2 times in standard length, head length 3.9-4.3 in standard length; narrow interorbital space, less than half of eye diameter (Ref. 90102).

Description: Snout length, eye to tip of chin, about 3.5 times in head length; front nostril a narrow tube over lip; narrow skinny flap with escalated edge along above maxilla, one on side of chin to preopercle margin, another along lower opercular margin; with 6-7 flaps on the lower edge of preopercle, 5-6 flaps on lower edge of operculum; mouth oblique, maxilla to below eye, chin very prominent, mouth aperture dorsal; minute teeth in 2-3 series in upper and 1-2 in lower jaw; tongue bilobed, deeply forked (Ref. 404, 90102). Gill opening forward to below preopercle, isthmus narrow; gillrakers 0+9, gillrakers fine points (Ref. 404, 90102). Dorsal fin with 5 spines and 14 soft rays; anal fin with 1 spine and 13 soft rays; pectoral fin with 7-9 rays; pelvic fin with 1 spine and 5 soft rays; dorsal-fin origin 2.0-2.2 times further from caudal-fin base than snout tip, the 5th spiniform ray widely separated, last ray double; anal-fin origin below seventh and eighth dorsal ray, about midway between caudal-fin base and eye, last ray double; all dorsal and anal rays simple; pectoral fin with lobate base, 2 upper rays simple, sometimes lowest also, and end of fin reaches below about second dorsal-fin ray; pelvic fin bases united, the fins separate, all rays bifurcate, 4th and 5th longest, variably subequal, end of fin beyond pectoral apex, to below 3-4th dorsal-fin ray; caudal fin 1.8 times in head length, rounded, middle 8-9 rays branched (Ref. 404).

**Maximum length:** 3.5 cm TL male/unsexed (Ref. 4343).

**Colour:** In life translucent, as preserved opaque; occasional specimens with irregular series of fine black dots on back from occiput to caudal (Ref. 404).

**Distribution:** Indo-Pacific: East Africa to the Society Islands (Ref. 1602).

**Notes:**

### *Mugilogobius durbanensis* (Barnard, 1927)

**Common names:** Durban-dikkop (South Africa), Durban goby (South Africa).

**Description:** Description: Gill rakers on upper limb 1-2; gill rakers on lower limb 8 (Ref. 2798). Dorsal fin with 7 spines and 7-8 soft rays; anal fin with 1 spine and 7-8 soft rays; pectoral fin with 14-16 rays (Ref. 2798). Scales on lateral line 32-39; large triangular naked patch on isthmus behind branchiostegal membranes; operculum with about 6 rows of scales; preopercle naked; scales ctenoid in wedge from behind pectoral fin base to middle of second dorsal fin and anal fin and to caudal fin base; anteriorly scales cycloid above and below wedge (Ref. 2798).

**Maximum length:** 4.5 cm TL male/unsexed (Ref. 4343).

**Colour:** Caudal peduncle with comma-shaped mark dorsally at caudal fin base and an oblique spot ventrally; body with diffuse crossbars and often with a series of dashes along midside (Ref. 2798).

**Distribution:** southern Mozambique to Coffee Bay, South Africa (Ref. 2798).

**Notes:**

*Mugilogobius mertoni* (Weber, 1911)

**Common names:** Gobi milet (Mayotte), Madagascar, Seychelles, Rodriguez), Meander goby (South Africa), Slinger-dikkop (South Africa).

**Description:** Diagnosis: A moderate to large *Mugilogobius* with second dorsal and anal fin with 1 spine and 6-8 rays; pectoral fin rays 14-17; longitudinal scales 26-37; 12-16 circumpeduncular scales; predorsal scales 9-19, mostly small, central anteriormost scale immediately behind eyes always largest, anteriormost one to four scales larger than those posterior to them; scales on body mostly ctenoid; third spine of first dorsal fin most often longest; body brownish with 7-11 darker narrow diagonal bars, chevrons or X-shaped markings along sides, interspaces between chevrons or bars pale, forming chequered or banded pattern, two to three dark spots or short diagonal bars on caudal base (Ref. 43716).

Description: Body relatively compressed, especially posteriorly; body depth at anal-fin origin 4.4-5.9 times in standard length; caudal peduncle compressed, its length 3.4-4.2 times in standard length, its depth 6.4-8.4 times in standard length (Ref. 43716). Head broad, rounded, wider than deep, head length 3.1-3.6 times in standard length; cheeks sometimes slightly inflated; mouth terminal to subterminal, slightly oblique, forming angle of about 20-25° with body axis; jaws generally reaching to below mid-eye, to posterior half of eye in large specimens, in males and to below anterior half of eye in females, to below mid-eye in large females; lips usually smooth, small fleshy fimbriae may be present on inner edges of upper lip; lower lip free at sides, fused narrowly across front; upper jaw 2.3-3.1 times in head length; eyes rather small, lateral, high on head, top usually forming part of dorsal profile; snout rounded; interorbital broad, flat; top of head from rear of interorbital space forward to snout tip covered with fine villi, usually visible in specimens with well-preserved mucous coat; scattered villi on preorbital and below eye in some specimens (Ref. 43716, 57749). Gill rakers on outer face of first arch 2+7 to 4+8 (Ref. 43716). First dorsal fin with 6-7 spines, low, rounded, tips of first three spines often free, with second or third often the longest ones, first spine sometimes longest and filamentous, spines always falling short of second dorsal fin origin when depressed, usually by gap of one scale width; second dorsal fin with 1 spine and 6-8 soft rays; anal fin with 1 spine and 6-8 soft rays; second dorsal and anal fins low, angled anteriorly, pointed posteriorly, posteriormost rays longest, rays falling well short of caudal fin when depressed; pectoral fin with 14-17 rays, rounded, central rays longest, 3.4-5.4 times in standard length, rays all branched but for uppermost; pelvic fins short, rounded to oval, reaching half to two-thirds distance to anus; caudal fin rounded; segmented caudal fin rays 15-17, caudal ray pattern modally 9/7; branched caudal fin rays 7/6 to 9/7; unsegmented caudal fin rays 5/6 to 7/7 (Ref. 43716, 57749). Scales in lateral series 26-37; scales in posterior transverse series 8-14; predorsal scales 9-19, small; circumpeduncular scales 12-16; cheeks naked, small scales on opercle; base of pectoral fins and prepelvic area show small cycloid scales; belly with ctenoid scales (Ref. 43716, 57749). Vertebrae 25-27; neural spines of first three, or first and second vertebra expanded or bifid at tip, or pointed and slender; 2 epurals; 1-3 anal pterygiophores before haemal spine of first caudal vertebra; metapterygoid wide, but not expanded upward greatly; forms broad bridge to quadrate (Ref. 43716).

**Maximum length:** 6.0 cm SL male/unsexed (Ref. 57749).

**Colour:** Body brownish, grey-yellow to grey-violet with 7 to 11 dark diagonal stripes on the flanks; 2 to 3 black spots or short stripes at the base of the caudal; first dorsal with a black mark and a white stripe on its superior margin, base of the second dorsal sometimes with 1 or 2 rows of elongated grey or black marks; caudal and pelvic usually hyaline to greyish; one striking black mark at the base of the pectorals; head with several irregular red and blue stripes (Ref. 57749).

**Distribution:** Indo Pacific: from South Africa and Seychelles up to Japan, Pakistan, to the Indo-Malaysian archipelago, Papua-New Guinea, New Caledonia, Vanuatu, Australia and Santa Cruz Islands (Ref. 97791).

**Notes:**

*Pandaka silvana* (Barnard, 1943)

**Common names:** Dwarfgoby (South Africa), Dwergdikkop (South Africa).

**Description:** Description: Mouth small, reaches to below front of eye (Ref. 2798). Dorsal fin with 6 spines and 7 soft rays; anal fin with 7 soft rays; pectoral fin with 14-16 soft rays (Ref. 2798). Scales on lateral line 20-22; head, pectoral fin base and prepelvic naked; predorsal with scales just before dorsal fin, naked in front; 0-3 predorsal scales (Ref. 2798).

**Maximum length:** 2.2 cm TL male/unsexed (Ref. 4343).

**Colour:** Body with irregular black spots and oblique bars; 4 black spots along anal-fin base and lower part of caudal peduncle; 1st dorsal fin black anteriorly (Ref. 2798).

**Distribution:** northern Mozambique to Knysna, South Africa (Ref. 2798, 4343).

**Notes:**

*Redigobius balteatus* (Herre, 1935)

**Common names:** Gobie Drapeau (Mayotte, Madagascar).

**Description:** Distinguished by the following characteristics: moderate-sized Redigobius; single black band extending down and back from tip of first dorsal fin; distinct black band extending from eye diagonally across opercle to lower edge of pectoral fin base; first dorsal fin tall and elongate, third or fourth spine longest; opercle with small ctenoid scales; 14 circumpeduncular scales; second dorsal rays modally 1,7; anal rays 1,6; pectoral rays 16-17; longitudinal scales 23-25; TRB 9-11; predorsal scales 9-12 (Ref. 84480).

**Maximum length:** 3.8 cm SL male/unsexed (Ref. 44894).

**Colour:**

**Distribution:** Asia: Sri Lanka, Philippines, Malaysia and Indonesia (Ref. 13235); Japan (Ref.43239). Oceania: New Guinea. Reported from New Caledonia (Ref. 13235), Micronesia (Ref. 59012). Africa: Mozambique. Indian Ocean: Madagascar, Mayotte (Ref. 55749).

**Notes:**

*Redigobius dewaali* (Weber, 1897)

**Common names:** Blokkies-dikkop (South Africa), Checked goby (South Africa).

**Description:** Diagnosis: brownish head and body; 5-7 dark vertical to oblique bars along side; curved oblique dark stripes on pale head; reddish unpaired fins; compressed head and body; second dorsal rays 1,6-8; anal rays 1,5-7; pectoral rays 16-19; longitudinal scales 23-26; TRB 8-11; predorsal scales 8-11; circumpeduncular scales 13; second to fourth spine of first dorsal fin longest; first dorsal fin rounded without elongate spines (Ref. 84480).

Description: Body moderately deep, tail rounded (Ref. 52193). Head compressed; eyes large; mouth large, reaching below eye in females or beyond eye in males (Ref. 52193). Dorsal fin with 7 spines and 7-8 soft rays; anal fin with 1 spine and 5-7 soft rays (Ref. 52193). Scales in lateral series 23-29 (Ref. 52193, 84480).

**Maximum length:** 5.6 cm SL male/unsexed (Ref. 52193).

**Colour:** Translucent olive brown with dark brown or black bars and spots, including a double spot at base of the caudal fin; first dorsal fin with a large blue, black on preservation, spot near hind edge (Ref. 52193).

**Distribution:** endemic to the southwestern Indian Ocean along African coast from southern Mozambique to the Agulhas Province (Ref. 92840), from east coast rivers and estuaries from the Limpopo to southern KwaZulu-Natal in South Africa (Ref. 2798, 52193); with isolated records from around Knysna and Kariega estuary, Eastern Cape (Ref. 52193). Threatened by deterioration of riverine and estuarine habitats (Ref. 7248).

**Notes:**

*Silhouettea sibayi* Farquharson, 1970

**Common names:** Barebreast goby (South Africa), Kaalbors-dikkop (South Africa), Sibayi goby (South Africa).

**Description:** Description: Body slender, elongate; head depressed (Ref. 52193). Dorsal fin with 7 spines and 11 soft rays; anal fin with 1 spine and 13 soft rays; first dorsal fin of males tall and pointed; caudal rounded (Ref. 52193). Scales in lateral series 24-25; no scales on head and chest (Ref. 52193).

**Maximum length:** 4.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Body pale and translucent with red and brown flecks; oblique rows of small black spots on body; anterior portion of 1st dorsal fin dusky; pelvic and anal fin margins normally black (Ref. 2798, 52193). First dorsal fin of males sooty, with white vertical stripe (Ref. 52193).

**Distribution:** Lake St. Lucia (Ref. 11228), Lake Sibayi and Kosi Bay, South Africa (Ref. 7248, 52193).

**Notes:**

*Stenogobius kenya* Smith, 1959

**Common names:** Africa rivergoby (South Africa, Tanzania), African rivergoby (Kenya), Afrika rivierdikkop (South Africa), East African river goby (Kenya).

**Description:** Description: Dorsal fin with 7 spines and 10 soft rays; anal fin with 1 spine and 10-11 soft rays; pectoral fin with 16 soft rays (Ref. 2798). Scales in lateral series 46-50; cheek naked; opercle usually naked, may have few large scales; pectoral base naked; belly usually naked, may have few thin scales; breast usually naked, may have one to five scales; predorsal region fully scaled with large scales numbering 10 to 15 (Ref. 2798, 34009).

**Maximum length:** 12.0 cm TL male/unsexed (Ref. 4343).

**Colour:** First dorsal fin with two parallel black bands on basal half of fin (Ref. 34009). Males with light stripe near 1st dorsal fin base (Ref. 2798).

**Distribution:** known from the Sabaki River in Kenya (Ref. 4343). Reported from Somalia to South Africa in waters entering the Indian Ocean (Ref. 34009).

**Notes:**

## Hemiramphidae

*Hyporhamphus capensis* (Thominot, 1886)

**Common names:** Cape halfbeak (FAO, South Africa), Kaapse halfbek (South Africa), Meia-agulha do Cabo (Mozambique).

**Description:** Description: Body depth 10.1-10.9 times in standard length for adults, 8.7-9.4 times in standard length for specimens of 5-8 cm standard length; head 4.3-4.8 times in standard length (Ref. 4164). Lower jaw 2.9-4.4 times in standard length and 0.7-0.9 times in head length; upper jaw width in length 1.0-1.1 in specimens greater than 8 cm standard length, shorter in smaller specimens; teeth arranged in 2-4 rows (Ref. 4164). Preorbital distance 1.5-1.7 times in orbit and 1.4-1.8 times in upper jaw length (Ref. 4164). Dorsal fin with 14-17 rays; anal fin with 15-16 rays; pectoral fin with 10-12 rays; pelvic fin closer to pectoral fin origin than to caudal fin base (Ref. 4164). Predorsal scales 31-38; no scales on dorsal fin; a maximum of 2-3 scales on anterior 2 membranes of anal fin; scales on upper jaw in 1 row on either side of median ridge (Ref. 4164).

**Maximum length:** 16.0 cm TL male/unsexed (Ref. 4164).

**Colour:**

**Distribution:** Western Indian Ocean: coastal waters and estuaries of South Africa, from Cape of Good Hope east and north to False Bay, Natal and St. Lucia coast of North Zululand (Ref. 6798); and to Lake Piti in southern Mozambique (Ref. 4164).

**Notes:**

## Kneriidae

### *Kneria auriculata* (Pellegrin, 1905)

**Common names:** Airbreathing shellear (FAO), Southern kneria (South Africa), Suidelike skulp-oortjie (South Africa), Suidelike skulpoortjie (South Africa).

**Description:** Diagnosis: body cylindrical, slightly humped at mid-body (Ref. 5214, 12524), well covered with mucus (Ref. 5214). Body depth equals head length, 4.5 times in standard length; eye diameter 3 times in head length; jaws without teeth, lower jaw with sharp cutting edge; eyes lateral, visible from below and above (Ref. 88972). Head smooth, rounded; mouth ventral, bow-shaped (Ref. 6385, 52193). Dorsal fin with 2-3 unbranched and 7-9 branched rays, anal with 3 unbranched and 6-8 branched rays; pectoral fin with 14-15 rays (Ref. 52193, 88972, 88973). No enlarged scale at base of pelvic fins (Ref. 88972). Dorsal fin situated above pelvic fin base (Ref. 42135, 45616), or pelvic fin base slightly in front of dorsal fin base (Ref. 13721). Dorsal fin placed equidistant between anterior margin of eye and end of scaly process on caudal peduncle (Ref. 6385, 12524). Scales minute (Ref. 6385). Number of lateral line scales very variable (60-100) and population dependent (Ref. 13721, 42135, 45616). Lateral line arched to avoid opercular organ/contact organ (Ref. 52193). Opercular apparatus only in males; males more elongated than females (Ref. 41590).

Description: details on skull osteology, digestive tract, pectoral girdle and structure of epibranchial and opercular organs can be found in Ref. 88973.

**Maximum length:** 7.0 cm FL (female)(Ref. 52193).

**Colour:** Body yellowish grey (Ref. 88972), mottled with dark blotches (Ref. 13721, 52193) above the thin, dark lateral stripe (Ref. 13721, 52193, 88972) which is located on trunk and caudal peduncle (Ref. 52193). A few small dark blotches on the lateral line towards the caudal peduncle (Ref. 13721). Upper parts of body darker; minute black dots, more or less distinct, at the base of dorsal, anal and pelvic fins; ventral side of head and caudal peduncle whitish (Ref. 88972). Some specimens with dark spot at base of ventral and anal fins (Ref. 13721). Dark spot at base of pelvic and pectoral fins (Ref. 52193).

**Distribution:** most mountain and plateau tributaries of the Zambezi, Pungwe, Buzi, Sabi/Save and Runde/Lundi rivers (Ref. 83372) in Zimbabwe, Zambia and Mozambique. Also in the upper Congo River basin (Lualaba, upper Lualaba, Lake Mweru and Luapula) (Ref. 45616) in Democratic Republic of the Congo and Zambia. A relict southern pocket occurs in the Crocodile (Incomati system), Transvaal (Ref. 7248, 52193). Identity of specimens from the Kafue and upper Zambezi requires confirmation (Ref. 52193). Not recorded from coastal areas (Ref. 5214).

#### **Notes:**

### *Parakneria mossambica* Jubb & Bell-Cross, 1974

**Common names:** Gorongoza kneria (South Africa), Gorongoza-skulpoortjie (South Africa).

**Description:** Diagnosis: body slender, cylindrical (Ref. 52193), body depth 14.1-15.0% SL (Ref. 89116). Head smooth, rounded in front, flat below; mouth ventral, tadpole-like (Ref. 52193). Head length 18.4-22.8% SL; predorsal length 52.5-56.8% SL; prepelvic length 55.0-57.0% SL; preanal length 77.2-82.7% SL; caudal peduncle length 15.0-19.5% SL; snout length 42.7-50.0% HL; postorbital distance 42.7-50.0% HL (Ref. 89116). Eye superolateral, its diameter 18.2-20.0% HL (Ref. 89116), 5-6 times in HL, 2.2-2.27 times in interorbital distance, 1.7-2.2 times in snout length (Ref. 89112).

Interorbital width 42.7-45.4% HL (Ref. 89116). Dorsal fin origin before first ray of pelvic fin (Ref. 89112), nearer base of caudal fin than snout (Ref. 52193). Origin of anal fin nearer base of caudal than pelvics; fins short (Ref. 52193).

**Maximum length:** 6.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Alcohol preserved: basic ground color pale yellow-brown; lateral series of large, dark blotches along the flanks with numerous smaller dark markings on dorsal surface; caudal fin with diagonal series of small dark markings (Ref. 89116).

**Distribution:** tributaries of the Pungwe and Buzi in Mozambique (52193, 80059).

**Notes:**

## Malapteruridae

### *Malapterurus shirensis* Roberts, 2000

**Common names:** Electric catfish (South Africa), Zambezi electric catfish (South Africa).

**Description:** Medium-sized species probably attaining over 300 mm; vertebral counts 23+19+42(2); tooth bands moderately large, laterally and longitudinally moderately broad. Distinguished from the species in the Congo basin by its coloration, with relatively large blotches similar with *M. electricus* and *M. minjiriya*. Resembles *M. electricus* but differs in having more vertebrae (45 vs. 41-44), fewer gill rakers, and oral tooth bands that are laterally and longitudinally somewhat shorter. Holotype and paratype from the Shire have 2+21=23 and 3+18=21 gill rakers on the first gill arch (Ref. 34006). Tooth patches narrow; pectoral fin placed near the body mid-depth; 9 pectoral-fin rays; 9-11 anal-fin rays; total number of vertebrae 40-41; 7-8 branched caudal-fin rays; large blotches on dorsum and flank; base color grey; caudal fin at most lightly spotted (Ref. 44050).

Description: head and trunk moderately depressed; mouth wide; lower jaw slightly prominent; 16-17 abdominal and 23-25 caudal vertebrae; 19-20 caudal fin rays (arrangement ii-7-8-ii-iii) (Ref. 44050).

**Maximum length:** 37.2 cm SL male/unsexed (Ref. 44050).

**Colour:** body and head bicolored; dorsum and flank dark brown, with venter pale tan or off-white; scattered large blotches (up to 2-5 times an eye diameter) mark dorsum and flank; small spots occasionally mark the venter; a light scattering of small spots is carried onto caudal fin, which is otherwise pigmented as flank; no pale distal margin or pale basal crescent on caudal fin; pectoral fin slightly darkened; pelvic fin unpigmented; juvenile pigmentation unknown; no indication of a caudal saddle and bar pattern (Ref. 44050).

**Distribution:** middle and lower Zambezi, Pungwe and lower Save (Ref. 52307).

**Notes:**

### *Malapterurus electricus* (Gmelin, 1789)

**Common names:**

**Description:**

**Maximum length:**

**Colour:**

**Distribution:**

**Notes:**

## Megalopidae

### *Megalops cyprinoides* (Broussonet, 1782)

**Common names:** Alose (Seychelles), Bastard mullet (South Africa), Bekalana (Madagascar), Bekapoka (Madagascar), Besisika (Madagascar), Bokalana (Madagascar), Bourgandet (Mauritius, Rodriguez), Cheche (Tanzania), Indo-Pacific tarpon (FAO, Kenya), Lubine (Seychelles), Makosa (Madagascar), Mandecdec (Mauritius, Rodriguez), N'taya (Comoros), Osoog-tarpon (South Africa), Oxeye (AFS, South Africa), Oxeye tarpon (Kenya, South Africa), Pawale (Tanzania), Samaduul (Somalia), Tarpon Indo-Pacifique (FAO), Tarpão do Indo-pacífico (Mozambique), Tarpón del Indo-Pacífico (FAO), Tarpón Indo-Pacífico (old FAO name), Tazanda (Kenya), Uláwa (Mozambique).

**Description:** Description: Body streamlined and compressed (Ref. 52193). Eye large; mouth large, lower jaw projects beyond snout; a bony gular plate present between the jaw bones; teeth extremely fine (Ref. 52193, 10982). Dorsal fin with 16-21 rays; anal fin with 23-31 rays; dorsal fin with last fin ray extended into a long filament, directly over pelvic fins; pectoral fins low on side of body near ventral margin; abdominal pelvic fins with 9 or more rays; caudal fin deeply forked (Ref. 52193, 10982). Scales large; lateral line scales 36-42; prominent elongate scales at base of paired fins; head without scales (Ref. 52193, 10982). Can tolerate oxygen-poor water by 'breathing' air into a modified lung-like swimbladder (Ref. 10982).

**Maximum length:** 150 cm TL male/unsexed (Ref. 1479); common length: 30.0 cm SL male/unsexed (Ref. 7017); common length: 45.5 cm SL (female).

**Colour:** Blue-green dorsally; silver on sides (Ref. 10982).

**Distribution:** Indo-Pacific: Persian Gulf (Ref. 68964), Red Sea and Natal, South Africa (Ref. 3969) to the Society Islands, north to southern Korea, south to the Arafura Sea (Ref. 9819) and New South Wales. Restricted to high islands (Palau, Caroline and Mariana islands) in Micronesia. Reported as far inland as the lower Shire in Malawi and the Save-Runde junction in Zimbabwe (Ref. 7248, 52193). Widespread in the Lower Zambezi River channels up to Marromeu and in the Micelo River up to Malingapanzi (Ref. 39494). South China Sea, Taiwan Strait, and East China Sea (Ref.33302).

**Notes:**

## Mochokidae

### *Chiloglanis anoterus* Crass, 1960

**Common names:** Pennant-tailed catlet (South Africa), Pennant-tailed rock catlet (South Africa), Pennant-tailed suckermouth (South Africa), Wimpelstert-suierbekkie (South Africa).

**Description:** Description: Oral disc large; maxillary barbels short, not reaching beyond hind edge of disc; mandibular barbels very short; mandibular toothband narrow, teeth closely gathered, up to 12 (Ref. 52193). Dorsal fin with 1 spine and 5-6 soft rays; anal fin with 3 unbranched and 8 branched rays; dorsal spine short, half length of fin (Ref. 52193).

**Maximum length:** 9.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Dark brown to black with light brown patches and a series of vertical linear spots along back (Ref. 52193).

**Distribution:** endemic to the escarpment streams of Phongolo and Incomati River systems (Ref. 7248, 52193).

**Notes:**

### *Chiloglanis bifurcus* Jubb & Le Roux, 1969

**Common names:** Incomati rock catlet (South Africa), Incomati suckermouth (South Africa), Inkomati-suierbekkie (South Africa).

**Description:** Description: Oral disc large; maxillary barbels reach beyond hind margin of disc; mandibular barbels short; mandibular teeth long, widely spaced, up to 8 (Ref. 52193). Dorsal fin with 1 spine and 6 soft rays; anal fin with 3 unbranched and 8 branched rays; dorsal spine long, 75-80% length of fin; fins all large, caudal forked with large, rounded lobes (Ref. 52193).

**Maximum length:** 6.8 cm SL male/unsexed (Ref. 52193).

**Colour:** Light brown with dark brown shadows; fins yellow with black bands; black spots at the base of either caudal lobe (Ref. 52193).

**Distribution:** endemic to Crocodile-Incomati system at altitudes of 900-1200 m (Ref. 7248, 52193).

**Notes:**

### *Chiloglanis emarginatus* Jubb & Le Roux, 1969

**Common names:** Phongolo catlet (South Africa), Phongolo suckermouth (South Africa), Phongolo-suierbekkie (South Africa), Pongola rock catlet (Zimbabwe).

**Description:** Description: Mouth used as a sucking disc to hold its position in fast flowing waters; relative long barbels; mandibular teeth widely spaced, up to 8 (Ref. 52116, 52193). Dorsal fin with 1 spine and 6 soft rays; anal fin with 3 unbranched and 8 branched rays; caudal fin is emarginate (Ref. 52193). Gut length is less than standard length and the mandibular teeth are used to scrape invertebrates from stones (Ref. 52116).

**Maximum length:** 6.5 cm SL male/unsexed (Ref. 52193).

**Colour:** Skin rough, with tiny white warts; brown with dark brown shadows, lateral line whitish; fins light yellow with black bands and a dark edge to the caudal (Ref. 52193).

**Distribution:** two areas: tributaries of the Phongolo and Komato-Incomati rivers in South Africa and Swaziland (Ref. 7248, 52193), and the Pungwe and middle and lower Zambezi in Zimbabwe (Ref. 7248, 52193).

**Notes:**

### *Chiloglanis neumanni* Boulenger, 1911

**Common names:** Neumann se suierbekkie (Namibia), Neumann's rock catlet (Namibia, South Africa, Zimbabwe), Neumann's suckermouth (South Africa), Newman's suckermouth (Namibia), Nkholokolo (Malawi), Prickleback suckermouth (Mozambique), Rock catlet (Namibia), Zambezi-suierbekkie (South Africa).

**Description:** Description: Body moderately tapered (Ref. 52193). Head robust; barbels moderately long; teeth closely spaced, long, up to 8 (Ref. 52193). Dorsal fin with 1 spine and 5-6 soft rays; anal fin with 3-4 branched and 7 unbranched rays; dorsal spine with slight outer serrations, its length 80% of fin length; caudal fin forked (Ref. 52193).

**Maximum length:** 6.5 cm SL male/unsexed (Ref. 52193).

**Colour:** Skin rough, with small white warts and ridges; light brown with black or dark brown shadows; caudal fin with splayed band across either lobe (Ref. 52193).

**Distribution:** Limpopo River system, Cunene, Kafue, Zambezi (above and below Victoria Falls), Okavango, Lake Malawi and Lake Kariba (Ref. 3202, 52193). Presence in the upper Congo River basin in Zambia (Ref. 3202) is unconfirmed (Ref. 52193) and questionable. Also reported from the Pungwe and Buzi systems and east coast rivers in Tanzania (Ref. 7248, 52193). Several undetermined *Chiloglanis* populations from East and Central as well as South Africa have been assigned to this species, although it is only inadequately known; also Rufiji/Ruaha specimens are not conspecific (Ref. 78218).

**Notes:**

### *Chiloglanis paratus* Crass, 1960

**Common names:** Saagvin-suierbekkie (South Africa), Sawfin rock catlet (South Africa, Zimbabwe), Sawfin suckermouth (South Africa).

**Description:** Description: Body robust (Ref. 52193). Head depressed; maxillary barbels moderate, mandibular barbels very short; teeth closely spaced, up to 12 (Ref. 52193). Dorsal fin with 1 spine and 5-6 soft rays; anal fin with 3 unbranched and 7-9 branched rays; the serrated or barbed spines in the dorsal and pectoral fins are hallmarks of this species; caudal fin forked (Ref. 52193).

**Maximum length:** 8.5 cm SL male/unsexed (Ref. 52193).

**Colour:** Skin rough, with small white warts; dark brown with black shadows; caudal fin with splayed dark brown bands on either lobe (Ref. 52193).

**Distribution:** Pongolo, Incomati and Limpopo rivers (Ref. 7248, 52193).

**Notes:**

*Chiloglanis pretoriae* Van Der Horst, 1931

**Common names:** Kortstekel-suierbekkie (South Africa), Limpopo rock catlet (Zimbabwe), Shortspine rock catlet (South Africa), Shortspine suckermouth (South Africa).

**Description:** Description: Somewhat variable species (Ref. 52193). Head depressed; eyes relatively small; mouth large, with broad premaxillary toothpads, about 12 mandibular teeth in a straight band (Ref. 52193). Dorsal fin with 1 spine and 5-6 soft rays; anal fin with 3 unbranched and 7-10 branched rays; dorsal fin small, dorsal spine short, less than 50% fin length; caudal fin emarginate in both sexes (Ref. 52193).

**Maximum length:** 6.5 cm SL male/unsexed (Ref. 52193).

**Colour:** Dark brown with small lighter patches on back and distinctive series of vertical linear spots along body; caudal fin with broad splayed black band over either lobe (Ref. 52193).

**Distribution:** Limpopo, Incomati river systems and from the middle and lower Zambezi, Pungwe and Buzi systems (Ref. 7248, 52193).

**Notes:**

*Chiloglanis swierstrai* Van Der Horst, 1931

**Common names:** Laeveld-suierbekkie (South Africa), Laeveldse suierbekkie (South Africa), Lowveld rock catlet (South Africa, Zimbabwe), Lowveld suckermouth (South Africa).

**Description:** Description: Body long, slender (Ref. 52193). Eyes relatively large and close-set, interorbit 1.5 times orbit diameter; oral disc relatively small; barbels long; up to 14 very short teeth, widely spaced (Ref. 52193). Dorsal fin with 1 spine and 5-6 soft rays; anal fin with 3-4 unbranched and 7-10 branched rays; dorsal and pectoral spines nearly full length of fin; caudal fin forked (Ref. 52193).

**Maximum length:** 7.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Brown above with off-white patches, off-white below, lateral line white, black base to caudal fin (Ref. 52193).

**Distribution:** lowveld and warmer reaches of the Limpopo, Pongola and Incomati River systems in Mozambique, South Africa and Zimbabwe (Ref. 6376, 7248, 52193).

**Notes:**

*Synodontis nebulosus* Peters, 1852

**Common names:** Clouded squeaker (Zimbabwe, Zambia), Cloudy squeaker (South Africa), Newelrige skreeubaber (South Africa), Nkhokoloko (Malawi), Nkonokono (Mozambique).

**Description:** Description: Body slender, tapered (Ref. 52193). Mandibular teeth 12-24 in a narrow band; premaxillary toothpad broad, with 24-35 primary teeth on narrow ventral shelf; barbels short, maxillary barbels with smooth leading edge, branches of mandibulars short and stubby (Ref. 52193).

Humeral process pointed, with convex margin in adults (Ref. 52193). Dorsal fin with 1 spine and 7 soft rays; anal fin with 5-6 unbranched and 7-9 branched rays; caudal fin shallowly forked (Ref. 52193).

**Maximum length:** 15.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Brown with large dark brown or yellowish brown blotches on body; fins spotted (Ref. 52193).

**Distribution:** Middle and lower Zambezi River System (Ref. 7248, 52193) and Buzi River (Ref. 52193).

**Notes:**

### *Synodontis nigromaculatus* Boulenger, 1905

**Common names:** Blackspotted squeaker (FAO, AFS), Bongo (Zambia), Bongwe (Zambia), Chinyimba (Zambia), Nkonokono (Mozambique), Singoni (Zambia), Spikkel-skreeubaber (Namibia, South Africa), Spotted squeaker (Namibia, South Africa, Zimbabwe, Zambia), Tshingele (Angola), Tshingondola (Angola).

**Description:** Description: Body deep (Ref. 52193). Barbels long and slender, with filamentous branches; mandibular teeth 21-43 in a broad band (Ref. 52193). Humeral process triangular, pointed (Ref. 52193). Dorsal fin with 1 spine and 7 soft rays; anal fin with 4-6 unbranched and 7-9 branched rays; caudal fin forked (Ref. 52193).

**Maximum length:** 38.5 cm TL male/unsexed (Ref. 3202).

**Colour:** Olive green, entire body covered with round black spots about the size of the eye (Ref. 52193).

**Distribution:** in the Congo River basin in the Kasai system, upper Lualaba, Luapula drainage and lakes Mweru and Bangwelo in Democratic Republic of the Congo and Zambia (Ref. 75786, 82238). Also in the upper Zambezi and Okavango (Ref. 7248, 11970, 52193, 75786), Cunene, Limpopo (Ref. 3202, 11970, 75786, 82238) and Lake Chiuta (Ref. 75786). Absent from the Lake Tanganyika drainage (Ref. 78218).

**Notes:**

### *Synodontis zambezensis* Peters, 1852

**Common names:** Brown squeaker (South Africa, Zimbabwe, Zambia), Bruin skreeubaber (South Africa), Bruin-skreeubaber (South Africa), Kahulu (Angola), Kakolokotu (Angola), Kanvaka (Angola), Kavuba (Angola), Kuya liwe (Angola), Mboma (Angola), Ngonte (Tanzania), Nkholokolo (Malawi), Plain squeaker (FAO, AFS), Tshingondola (Angola).

**Description:** Description: Body deep (Ref. 52193). Barbels long and slender, mandibular branches filamentous; mandibular teeth 20-40 in single band; no distinction between primary and secondary premaxillary teeth (Ref. 52193). Humeral process triangular, pointed (Ref. 52193). Dorsal fin with 1 spine and 7 soft rays; anal fin with 4-6 unbranched and 7-10 branched rays; adipose fin large; caudal fin forked (Ref. 52193).

**Maximum length:** 43.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Plain olive brown or grey, small spots present or absent; spotted specimens are more common in populations from the Limpopo, Incomati and Phongolo rivers (Ref. 52193). Juveniles with albino patches on body are often found (Ref. 52193).

**Distribution:** middle and lower Zambezi south to the Pongolo system (Ref. 7248, 52193). Absent from upper Save-Runde system (Ref. 7248, 52193). Also reported from the Luangwe (upper Congo River basin) (Ref. 58032, 82238). Reports from the Angolan Congo basin (Ref. 11970) refer to *Synodontis macropunctatus* (Ref. 75786).

**Notes:**

## Monodactylidae

### *Monodactylus argenteus* (Linnaeus, 1758)

**Common names:** Bemaso (Madagascar), Bendrabendra (Madagascar), Breton (Seychelles), Dangira (Madagascar), Diamond moonfish (AFS), Felafela (Madagascar), Fiamplso (Madagascar), Finger fish (Mauritius), Kipela (Madagascar), Kipepeo (Tanzania), Line (Mauritius), Lunado prateado (Mozambique), Lune d'argent (FAO, Djibouti), Natal moony (South Africa), Natalse maanskyvis (South Africa), Pakawe (Tanzania), Pandafiti (Comoros), Poisson lune argenté (Mauritius), Rambali plateado (old FAO name), Silver moonfish (old FAO name), Silver moony (FAO, Djibouti, Kenya), Soor-yaxaas (Somalia), Takinbake (Madagascar), Talatala (Madagascar), Tretreky (Madagascar).

**Description:** Description: Body diamond-shaped, depth 1.2-1.6 times in standard length (Ref. 52193). Eyes large; mouth small; maxilla width 3.4-5.0 in orbit diameter (Ref. 52193, 90102). Dorsal fin with 8 spines and 27-30 soft rays; anal fin with 3 spines and 27-30 soft rays; pelvic fins small or absent (Ref. 52193). Scales small, 52-58 in lateral line; scales over base of dorsal and anal fins (Ref. 52193).

**Maximum length:** 27.0 cm SL male/unsexed (Ref. 44894); common length : 12.0 cm TL male/unsexed (Ref. 5450).

**Colour:** Adults bright silver with yellow and dusky dorsal fin tip; small juveniles more colourful with yellow over most of the dorsal fin and two vertical black bands over the head, one through the eye and the second behind the head (Ref. 48636, 52193). Fins yellow except pectoral translucent (Ref. 90102).

**Distribution:** Indo-West Pacific: Red Sea and east coast of Africa south to the Breë River (Ref. 7293, 52193); also the Persian Gulf (Ref. 96822) to Samoa, north to the Yaeyamas, south to New Caledonia and Australia (Ref. 4959). Known from the freshwater tidal zone of the Mekong delta (Ref. 12693).

**Notes:**

### *Monodactylus falciformis* Lacepède, 1801

**Common names:** Cape moonfish (AFS), Cape moony (South Africa), Full moony (FAO), Kaapse maanskyvis (South Africa), Kaapse maanvis (South Africa), Kipepeo (Tanzania), Lunado cheio (Mozambique), Lune pleine (FAO), Moony (South Africa), Pakawe (Tanzania), Soor-yaxaas (Somalia).

**Description:** Description: Body ovoid, depth 1.5-2.0 in standard length (Ref. 52193). Maxilla width 2.7-3.7 times in orbit diameter (Ref. 52193). Dorsal fin with 8 spines and 25-30 soft rays; anal fin with 3 spines and 25-29 soft rays; pelvic fins small or absent (Ref. 52193). Scales small, 51-58 in lateral line (Ref. 52193).

**Maximum length:** 31.0 cm TL male/unsexed (Ref. 5400).

**Colour:** Adults silvery with dusky dorsal and anal lobes (Ref. 5400, 52193). Juveniles dusky with 11-12 dark wavy vertical bars (Ref. 5400, 52193).

**Distribution:** Western Indian Ocean: Red Sea to False Bay, South Africa (Ref. 52193), Madagascar (Ref. 4337), and Reunion (Ref. 53568).

**Notes:**

## Mormyridae

### *Cyphomyrus discorhynchus* (Peters, 1852)

**Common names:** Chimpumwe (Zambia), Chipumamabwe (Zambia), Mphuta (Malawi), Mputa (Tanzania), Ndaka (Tanzania), Ntachi (Tanzania), Ntaka (Tanzania), Ntchentcheta (Malawi), Parrotfish (Tanzania), Sakulo (Namibia), Samwamowa (Malawi), Zambesi parrotfish (FAO), Zambezi parrotfish (Malawi, Namibia, South Africa, Zimbabwe, Zambia), Zambezi-papegaavis (South Africa), Zambezi-papegaavis (Namibia, South Africa)

**Description:** Diagnosis: Dorsal fin up to 1.5 times in length of anal fin; origin of dorsal fin in advance of anal fin (Ref. 52193). Snout rounded, in front of mouth; eye well above mouth; chin with fleshy bulge (Ref. 4967). For distinguishing between specimens of *Cyphomyrus discorhynchus* and *C. cubangoensis*, the most useful anatomical characters are: longer dorsal fin length, longer anal fin length, higher number of dorsal fin rays and anal fin rays, and a higher caudal peduncle depth and caudal peduncle length ratio in *C. discorhynchus* than in *C. cubangoensis* (Ref. 119538).

Description: Body relatively deep, compressed (Ref. 52193). Head rounded with blunt snout, mouth with mental lobe, teeth bicuspid, 5-6 in each jaw (Ref. 52193). Teeth in upper jaw 4-7; teeth in lower jaw 5-8 (Ref. 122874). Dorsal fin longer than anal, dorsal fin origin before anal fin origin, caudal fin forked, with round lobes; dorsal-fin rays 28-37; anal-fin rays 23-27; pectoral-fin rays 10-11; pelvic-fin rays 6 (Ref. 52193, 122874). Scales on lateral line 57-73; circumpeduncular scales 12-13; scales between dorsal and anal fins 28-31; scales between dorsal fin and lateral line 15-17; scales between pelvic fin and lateral line 14-17 (Ref. 52193, 122874). Total number of vertebrae 39-41 (Ref. 122874).

**Maximum length:** 31.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Greyish brown to dark brown, nearly black, lighter below, dark vertical bar sometimes evident between dorsal and anal fins (Ref. 52193).

**Distribution:** Cunene, Okavango, Buzi, Pungwe (Ref. 52193), Zambezi (Ref. 3203, 52193, 95585), Save (Ref. 13337) and Cubango Rivers (Ref. 3203). Absent from the Kafue River (Ref. 7248, 52193, 95585). Also in Malagarasi River, Lake Rukwa (Ref. 27292), lakes Tanganyika and Malawi (Ref. 3203, 52193). In the Congo basin known from the Lindi-Tshopo (Ref. 106290), upper Kasai (middle Congo River basin)(Ref. 2970), Lualaba (Ref. 45434), upper Lualaba (Ref. 2970, 45434) and the Mweru-Luapula-Bangweulu area (Ref. 13337, 95585).

**Notes:**

### *Heteromormyrus ansorgii* (Boulenger, 1905)

**Common names:** Ninga (Namibia), Slank klipstamper (Namibia), Slanke klipstamper (South Africa), Slender stone basher (Namibia), Slender stonebasher (AFS, Namibia, South Africa, Zimbabwe).

**Description:** Diagnosis: dorsal fin origin nearer caudal fin base than tip of snout; origin of dorsal fin behind origin of anal fin; dorsal fin shorter than anal fin; chin (mental swelling) present but feebly developed; dorsal fin with 19 rays, anal fin with 24-26 rays (Ref. 52193).

Description: scales small; body long and slender, compressed; caudal fin forked, with rounded lobes; mouth small, with small mental lobe; 7-8 bicuspid teeth in both jaws (Ref. 52193).

**Maximum length:** 15.0 cm SL male/unsexed (Ref. 52193).

**Colour:** Coloration: usually dark brown or black (Ref. 52193), with vertical bar from dorsal origin (Ref. 52193) to anal fin in adults (Ref. 13337).

**Distribution:** Cuanza River in Angola (Ref. 52193, 128501), also Cunene, Okavango, upper Zambezi, Buzi and Pungwe rivers, and an isolated population occurs in the Ruo River (lower Zambezi system) in Malawi (Ref. 52193). In the Congo basin known from the Kwango in Angola (Ref. 11970). Possibly also in the Inkisi River (lower Congo) (Ref. 12818, 120641), Lufira and Luwombwa rivers (upper Congo basin) (Ref. 12818) but these need confirmation.

**Notes:**

### *Marcusenius livingstonii* (Boulenger, 1899)

**Common names:** Somo (Tanzania).

**Description:** Description: Depth of body 3.6 times in total length, length of head 4.5 times in total length (Ref. 1878). Caudal peduncle 3 times as long as deep, a little shorter than head (Ref. 1878). Head nearly as long as deep, with curved upper profile; snout  $\frac{2}{7}$  length of head; chin with a globular dermal appendage; teeth bicuspid, 5 in upper jaw, 6 in lower jaw; eye small, half length of snout,  $\frac{2}{5}$  interorbital width (Ref. 1878). Dorsal fin with 21-24 rays, originating above 10th ray of anal fin, its length 2.5 times in its distance from head; anal fin with 28-31 rays, equally distant from base of pelvic fin and from base of caudal fin; pectoral fin obtusely pointed,  $\frac{3}{4}$  length of head, twice length of pelvic fin, reaching a little beyond base of latter; caudal fin with obtusely pointed lobes (Ref. 1878). Scales in lateral line 62-65, scales around caudal peduncle 12 (Ref. 1878).

**Maximum length:** 30.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Silvery, brownish on the back; a dark brown vertical bar on the body below origin of dorsal fin (Ref. 1878).

**Distribution:** East flowing rivers of Tanzania (Ref. 3203).

**Notes:**

### *Marcusenius luombesi* Maake, Gon & Swartz, 2014

**Common names:**

**Description:** Diagnosis: *Marcusenius luombesi* can be distinguished from its congeners by the following characters: distance dorsal fin origin to end of caudal peduncle 40.0-43.2% of standard length; distance anal fin origin to end of caudal peduncle 43.6-45.9% of standard length; pre-anal length 56.6-59.2% of standard length; pre-dorsal length 59.5-63.3% of standard length; low caudal peduncle depth 25.0-30.8% into its length; circumpeduncular scales 14-16; anal fin rays 28-29; dorsal fin rays 22-24; total vertebrae 44; lateral line scales 55-56; anterior gill rakers (4-5)+(4-5); total anterior gill rakers 8-10; posterior gill rakers (6)+(7); total posterior gill rakers 13; jaws with 5-5 conical teeth (Ref. 95448).

Description: Head with terminal mouth well in front of eye, mental lobe on lower jaw protruding in front of upper jaw; head and body compressed; snout very pointy; pre-anal distance shorter than pre-dorsal distance; distance from origin of anal fin to origin of dorsal fin equal to the middle body depth; pre-pelvic distance twice as long as the distance between pelvic and anal fins (Ref. 95448).

Dorsal and anal fins set well back on the body, situated about two thirds of standard length from the snout and opposite each other; dorsal fin shorter, originating on vertical at 3rd anal fin ray and ending before anal fin base; distal margins of dorsal and anal fins obliquely orientated, with rays becoming gradually shorter posteriorly; dorsal fin rays 22-24, its anterior rays highest, with distal margins rounded and slightly concave; anal fin rays 28-29; anterior anal fin rays of sexually mature males longer, appear stronger, are crescentic and rounded, but are anteriorly sharp and pointy in females and juveniles; pectoral fins rays 10; pectoral fins distinctly very long, reaching origin of pelvic fin (Ref. 95448). Middle body depth 25.0-28.4% of standard length; caudal peduncle thinner, subcylindrical across its entire length 19.7-21.7% of standard length; caudal peduncle depth 25.0-30.8% into its length (Ref. 95448). Lateral line scales 55-56; lateral line scales cycloid with reticulate striae; 14-16 scales along the caudal peduncle circumference (Ref. 95448). Jaws with 5-5 conical teeth; 44 vertebrae; gill rakers on anterior side covered with many minute spines, total anterior gill rakers 8-10 on the first gill arch; total posterior gill rakers 13 on the posterior side of first gill arch; gill rakers on posterior side shorter, thicker and covered by minute spines (Ref. 95448).

**Maximum length:** 12.2 cm SL male/unsexed (Ref. 95448).

**Colour:** light brown when preserved; homogeneous colouration without any blotches, increasingly lighter on belly (Ref. 95448).

**Distribution:** tributaries of Ruvuma River in Mozambique (Ref. 95448).

**Notes:**

### *Marcusenius macrolepidotus* (Peters, 1852)

**Common names:** Boelhond (Namibia), Boelhond-snowelvis (South Africa), Bulldog (FAO, Malawi, Namibia, South Africa, Zimbabwe, Zambia), Bulldog-fish (Tanzania), Lububu (Zambia), Mbelewele (Kenya), Mbongombongo (Sudan), Mintesa (Zambia), Mphuta (Malawi), Mpuni (Tanzania), Mputa (Tanzania), Nchemba (Tanzania), Nchesu (Zambia), Ndagumka (Mozambique), Ndaka (Tanzania), Nembele (Namibia), Ntachi (Tanzania), Samwamowa (Malawi), Snowelvis (South Africa), Tana-bulldog (Kenya), Tshibobobo (South Africa), Tshikalanomo (South Africa), Um shelfa (Sudan).

**Description:** Diagnosis: *Marcusenius macrolepidotus* is best distinguished from *M. altisambesi* by the number of circumpeduncular scales, which is 12-18 vs. 12-14, and an electric organ discharge lacking an initial head-negativity; from *M. devosi* by the number of scales in linear series along the lateral line row, which is 52-62 vs. 56-66, shorter caudal peduncle length, and weaker Namp of its electric organ discharge; from *M. pongolensis* by the number of scales in linear series along the lateral line row, which is 52-62 vs. 70-76, the number of circumpeduncular scales, which is 12-18 vs. 16-20, a greater body depth, and longer Ndur of its electric organ discharge in females and juveniles; and from *M. angolensis* by its lower number of anal fin rays, being less than 31 vs. 33, and dorsal fin rays, being less than 24 vs. 26, and a higher number of circumpeduncular scales (Ref. 75962).

Description: Head with terminal mouth well in front of eye, mental lobe on lower jaw protruding beyond upper jaw; head and body dorsolaterally compressed (Ref. 4967, 13337, 75962). Dorsal fin situated about two thirds of standard length from snout, obliquely orientated, anteriorly higher and posteriorly lower, proximal tip rounded, distal tip sharply pointed, distal margin sometimes only slightly crescentic with anterior two or three rays longer than posterior rays, number of rays 20-24; anal fin opposite dorsal fin with distinctly more anterior origin, obliquely orientated, anteriorly lower and posteriorly higher, anterior rays longer than posterior ones, especially in males where they also

appear stronger and often darkened, distal margin crescentic, number of rays 26-31 (Ref. 75962). Scales cycloid with reticulate striae, scales extending anteriorly to operculum and pectoral fins; scales on caudal peduncle circumference, 12-18 (Ref. 75962). Caudal peduncle relatively deep, subcylindrical entire length, 17-21% of standard length (Ref. 75962). Electric organ discharge biphasic lacking a weak pre-potential, Pdur around 183  $\mu$ s, Ndur around 174  $\mu$ s, Pamp and Namp of similar strength (Ref. 75962).

**Maximum length:** 32.0 cm TL male/unsexed (Ref. 27292).

**Colour:** Colour in life: back and sides grey-silver, dark on the back and lighter on the sides, to very fair on the underside, gold-olive or purple shimmer depending on angle of light incidence, dark-grey blotches on sides and on unpaired fins, especially on the tail, but absent on head and belly, area next to first ray of anal fin darker, less distinct in females (Ref. 75962). Colour in preservation: blackish-brown on back, fading into ochre on lower body parts, light ochre on underside, blotches seen in life less distinct in preservation (Ref. 75962).

**Distribution:** Lower Zambezi River from the delta upstream to at least Tete, if not Victoria Falls, and the lower Shire River; also Pungwe, Buzi and Mulela Rivers (Ref. 75962). Also upper and central Congo basin (Ref. 3203, 95585), Lake Rukwa basin (Ref. 95585), and east flowing rivers of Tanzania and Natal (Ref. 3203). Widespread and common in the Cunene and Okavango systems (Ref. 7248). Reports from Pool Malebo (Ref. 41585), the middle Congo River (Ref. 4910) and the Lulua (Kasai drainage)(Ref. 42554) possibly refer to *M. angolensis*.

**Notes:**

### *Marcusenius pongolensis* (Fowler, 1934)

**Common names:**

**Description:** Diagnosis: *Marcusenius pongolensis* can be distinguished from its congeners by the following characters: a more slender body, elongated, smaller body depth, 19.1-26.0% of standard length; distance from dorsal fin origin to end of caudal peduncle 37.1-39.8% of standard length; distance from anal fin origin to end of caudal peduncle 40.8-42.2% of standard length; and length of anal fin 19.5-21.9% of standard length; all shorter and non-overlapping with *Marcusenius krameri*, *M. caudisquamatus* and *M. lucombesi* (Ref. 95448). Total vertebrae ranges between 42-43 vs. 44 in other species; posterior total gill rakers 13-14 vs. 15 and 17 in *M. caudisquamatus* and *M. krameri*, respectively; lateral line scales 70-73; scales around caudal peduncle 16-17; dorsal fin rays 20-23; anal fin rays 26-28 (Ref. 95448). Electric organ discharge (EOD) lacking a weak head-negative pre-potential, in females and juveniles Ndur of short duration, no striking sexual dimorphism in EOD waveform present, but longer EOD duration and statistically significant increase with standard length in males (Ref. 75962).

Description: Head with terminal mouth well in front of eye, mental lobe on lower jaw protruding beyond upper jaw; head and body dorsolaterally compressed (Ref. 75962). Dorsal fin situated about three fourths of standard length from snout, obliquely orientated, anteriorly higher and posteriorly lower, distal margin sometimes only slightly crescentic with anterior two or three rays longer than posterior rays, number of rays 20-23; anal fin opposite dorsal fin with distinctly more anterior origin, obliquely orientated, anteriorly lower and posteriorly higher, anterior rays longer than posterior ones, especially in males where they also appear stronger and often darkened, distal margin crescentic, number of rays 26-28 (Ref. 75962, 95448). Scales cycloid with reticulate striae, scales

extending anteriorly to operculum and pectoral fins; scales on caudal peduncle circumference, 16-17 (Ref. 75962, 95448). Caudal peduncle subcylindrical entire length, 18-22% of standard length (Ref. 75962). Electric organ discharge biphasic lacking a weak pre-potential, in females and juveniles Ndur of short duration; in large males, statistically longer EOD duration and significant tendency for increase of both Pdur and Ndur with standard length, however, no sexual dimorphism when compared to upper Zambezi males (Ref. 75962).

**Maximum length:**

**Colour:** Colour in life ranging from an almost homogeneous medium brown to grey-brown with yellow-golden shimmer, sometimes going into purple, underside lighter, a few strongly faded, darker blotches on sides detectable, fins yellowish (Ref. 75962, 95448). Colour in preservation light to medium brown, fins whitish; irregular fair spots on body sides (Ref. 75962).

**Distribution:** coastal rivers draining into the Indian Ocean, ranging between tropical sections of the Limpopo River in the north and the Kosi River system in the south, including the Pongolo River which is the type river (Ref. 75962, 95448).

**Notes:**

*Mormyrops anguilloides* (Linnaeus, 1758)

**Common names:** Adolo (Sudan), African carp (Ghana), Akinkin (Sudan), Aloh (Sierra Leone), Bokobo (Congo Dem Rp), Bomete (Congo Dem Rp), Bunge (Burkina Faso), Bunyi karam (Nigeria), Cornish jack (Kenya, South Africa, Zimbabwe, Zambia), Dwangwa (Nigeria), Flô (Cote d'Ivoire), Gbodongo (Sudan), Gulum (Chad), Ilitosini (Congo Dem Rp), Kalembe (Angola), Kalembele (Angola), Kambangaji (Angola), Lele (Nigeria), Linjolo (Tanzania), Lombolombo (Zambia), Lundembe (Angola), Mamankalay (Sierra Leone), Milligi (Nigeria), Milobe (Zambia), Mphuta (Malawi), Mulobe (Zambia), Ndelew (Senegal), Ndembe (Angola), Ndjandja (Congo Dem Rp), Ndurguy (Sierra Leone), Nentche (Mozambique), Ngulu (Angola), Noagbe (Ghana), Not (Sudan), Nrii (Chad), Ntongo (Zambia), Nua gbemazu (Ghana), Nuagbemazu (Ghana), Nyanda (Tanzania), Ogboro (Nigeria), Ogodorobo (Nigeria), Roof-bottelneus (South Africa), Rîn (Chad), Taraza (Sudan), Tulembele (Angola), Tumbangaji (Angola), Wandaana (Senegal), Yemdele (Burkina Faso).

**Description:** Diagnosis: head depressed, mouth large and terminal; body elongated (Ref. 13337, 52193). Chin (mental swelling) absent; origin of dorsal fin behind origin of anal fin, nearer caudal fin base than tip of snout; dorsal fin shorter than anal fin; mouth width subequal to snout length: snout long (Ref. 52193). SL/Body depth 4.9-7.5; head 3.4-5.1 times in standard length; snout almost as wide as head; interorbital space wide, head length/interorbital space 2.9-6.8; variation in meristic characteristics due to differences in geographic clines (Ref. 2915).

Description: scales small; head and body elongated; median fins set well back; caudal fin relatively small, forked with rounded lobes; head smooth and depressed in front; mouth terminal with small pointed teeth in a single row; eyes small; gill slit restricted to sides, inclined at an angle (Ref. 52193).

**Maximum length:** 150 cm TL male/unsexed (Ref. 2915).

**Colour:** grey above, lighter silvery white below, often with a bronze or yellow sheen; juveniles darker, greyish blue or brown (Ref. 52193).

**Distribution:** a very wide distribution area which includes most of the West African river basins (Ref. 81274), the White Nile, Uebi Shebeli and Juba (Ref. 3203), and the Congo River basin (Ref. 52193). In southern Africa, restricted to the middle and lower Zambezi, Buzi and Pungwe (Ref. 52193). Also known from Lake Malawi, Lake Tanganyika and Lake Albert [former Lake Mobuto] (Ref. 3203, 52193).

**Notes:**

*Mormyrus longirostris* Peters, 1852

**Common names:** Botomu (Malawi), Chingoti (Malawi), Domodomo (Tanzania), Eastern bottlenose (South Africa, Tanzania, Zimbabwe, Zambia), Eastern bottlenose mormyrid (AFS), Elephant-snout (Malawi), Mbelewele (Tanzania), Mbubu (Zambia), Mpanda (Tanzania), Mphuta (Malawi), Nkupe (Mozambique), Oostelike bottelneus (South Africa), Samwamowa (Malawi), Tapondi (Tanzania).

**Description:** Diagnosis: dorsal fin greater than twice the length of anal fin; dorsal origin nearer tip of snout than caudal fin base; snout 2-2.5 times in head length; caudal peduncle less than 4 times in standard length (Ref. 52193).

Description: forebody and head relatively strongly decurved; females smaller and deeper bodied than males; teeth small, bicuspid, 5—7 in upper jaw, 8—12 in lower jaw; gill slits inclined on sides only (Ref. 52193).

**Maximum length:** 75.0 cm SL male/unsexed (Ref. 52193).

**Colour:** olive grey or brown above, lighter below (Ref. 52193).

**Distribution:** lower and middle Zambezi, Buzi, Pungwe (Ref. 52193), lower Sabi and Ludi Rivers (Ref. 42505), Luapula-Moero-Bangwelo (Zambian Congo system) (Ref. 42505, 52193). Also known from the Ruvuma and Rufiji rivers in Tanzania (Ref. 7248, 52193), lakes Malawi, Tanganyika (Ref. 4967, 52193) and Rukwa, and other eastward flowing rivers in Tanzania (Ref. 4967).

**Notes:**

*Petrocephalus catostoma* (Günther, 1866)

**Common names:** Abobo (Kenya), Chise (Zambia), Chonjo (Malawi), Churchill (FAO, Kenya, Namibia, Rwanda, South Africa, Tanzania, Zimbabwe, Zambia), Imbaraga (Rwanda), Kizurizuri (Tanzania), Kunene (Namibia), Kupandula (Namibia), Mputa (Mozambique), Netsenetse (South Africa), Ninga (Namibia), Northern churchill (Namibia, South Africa), Ntachi (Tanzania), Obobo (Kenya), Samwamowa (Malawi), Silwer-snawelvis (South Africa), Stompkoppie (South Africa).

**Description:** Body oval shape (Ref. 91771). Head broadly rounded with a small ventrally positioned subterminal mouth, situated ventral to the eye; head and body dorsolaterally compressed (Ref. 91771). Dorsal fin origin situated about two-thirds of standard length from snout, obliquely orientated, anteriorly higher and posteriorly lower, its distal margin crescentic with anterior two or three rays longer than posterior rays; 18-22 dorsal fin rays (Ref. 91771). Anal fin longer than dorsal fin, opposite dorsal fin with slightly more anterior origin, obliquely orientated, anteriorly lower and posteriorly higher, its anterior 10 or so rays longer than posterior ones, especially in males where they also appear stronger, its margin broadly rounded and rays posterior to first 10 with distal margin straight; 25-28 anal fin rays (Ref. 91771). Scales cycloid with reticulate striae, scales

extending anteriorly to operculum and pectoral fins; scales on caudal peduncle circumference (Ref. 91771). Caudal peduncle slender, subcylindrical entire length, usually 19.5-23.9% of standard length.

**Maximum length:** 15.0 cm FL male/unsexed (Ref. 5214).

**Colour:** Grey-silver, underside lighter, paired fins light and transparent, goldbrownish hue on back and tail section (Ref. 91771). In preservation it is light brown, back darker, underside fair (Ref. 91771).

**Distribution:** Rovuma River system including Niassa Reserve, and western confluences to Lake Malawi (Ref. 91771). Following a recent revision of the *Petrocephalus catostoma* complex (Ref. 91771), unambiguous evidence for the presence of this species in the Bangweulu-Mweru area (and consequently the Congo basin) is still lacking (Ref. 91772).

**Notes:**

### *Petrocephalus petersi* Kramer, Bills, Skelton & Wink, 2012

**Common names:**

**Description:** Diagnosis: Body depth 28.7-32.3% of standard length; predorsal length 62.3-65.8% of standard length; preanal length 59.5-63.7% of standard length; length of snout to centre of eye 34.5-38.3% of head length; length of snout to posterior orbital rim of eye 44.2-47.9% of head length; number of scales around caudal peduncle 12-16 (Ref. 91771).

Description: Body round-oval shape; head broadly rounded with a small ventrally positioned subterminal mouth, situated ventral to the eye; head and body dorsolaterally compressed (Ref. 91771). Dorsal fin origin situated about two-thirds of standard length from snout, obliquely orientated, anteriorly higher and posteriorly lower, distal margin crescentic with anterior two or three rays longer than posterior rays, 18-20 dorsal fin rays (Ref. 91771). Anal fin longer than dorsal fin, opposite dorsal fin with slightly more anterior origin, obliquely orientated, anteriorly lower and posteriorly higher, anterior 10 or so rays longer than posterior ones, especially in males where they also appear stronger, margin broadly rounded, rays posterior to first 10 with distal margin straight, 25-26 anal fin rays (Ref. 91771). Scales cycloid with reticulate striae, scales extending anteriorly to operculum and pectoral fins; scales on caudal peduncle circumference, 12-16 (Ref. 91771). Caudal peduncle slender, subcylindrical entire length, usually 18.5-20.8% of standard length (Ref. 91771).

**Maximum length:** 7.3 cm SL male/unsexed (Ref. 91771).

**Colour:** Preserved specimens light beige (Ref. 91771).

**Distribution:** Zambezi River Delta and Melela River (Ref. 91771).

**Notes:**

### *Petrocephalus wesselsi* Kramer & van der Bank, 2000

**Common names:** Churchill (South Africa), Southern Churchill (South Africa).

**Description:** Description: Body ellipsoid; caudal peduncle slender (Ref. 52193). Head smooth, rounded; mouth inferior, small and straight; nostrils in front of eye, opening closely spaced (Ref. 52193). Dorsal fin with 18-21 rays; anal fin with 25-28 rays; dorsal fin far back, above and shorter

than anal fin; caudal fin forked with pointed lobes; males with kink in anal fin (Ref. Scales in 12-13 rows around caudal peduncle (Ref. 52193).

**Maximum length:** 11.4 cm SL male/unsexed (Ref. 38306); 10.9 cm SL (female).

**Colour:** uniform silver or grey (Ref. 52193).

**Distribution:** Incomati River system (Sabie River forms a part of it), the Blyde and Letaba rivers that both drain into the Limpopo river system (a major independent system), and in the Pongola River (Natal) (Ref. 38306, 52193).

**Notes:**

### *Pollimyrus castelnaui* (Boulenger, 1911)

**Common names:** Dwarf stonebasher (AFS, Namibia, South Africa, Zimbabwe), Dwerg-klipstamper (Namibia, South Africa), Kaleha (Angola), Ninga (Namibia).

**Description:** Description: Body oval (Ref. 52193). Head rounded; snout short; mouth terminal; nostrils well separated (Ref. 52193). Dorsal fin with 16-18 rays; anal fin with 22-26 rays; dorsal fin origin behind origin of anal fin; caudal fin forked, with rounded lobes (Ref. 13337, 52193). Scales in lateral series 46-53, 12-14 scale rows around caudal peduncle (Ref. 52193).

**Maximum length:** 7.0 cm SL male/unsexed (Ref. 52193).

**Colour:** mottled dark brown (Ref. 52193).

**Distribution:** Okavango basin and upper Zambezi River; also from the Kafue and Cunene Rivers and northern areas of Lake Malawi (Ref. 52193). Also reported from the Luongo (lower Luapula tributary, upper Congo River basin) in Zambia (Ref. 27609, 94890) and the Kasai in Angola (Ref. 120641).

**Notes:**

## Mugilidae

### *Crenimugil buchanani* (Bleeker, 1853)

**Common names:** Bloustert-harder (South Africa), Bluetail mullet (old FAO name, AFS, Kenya, South Africa), Caanood (Somalia), Lisa rabo azul (old FAO name), Mkizi (Tanzania), Mulet sauteur (Seychelles), Mulet à queue bleue (old FAO name), Tainha de rabo azul (Mozambique).

**Description:** Description: No adipose eyelids; lower margin preorbital slightly bent, not or slightly notched, end truncate, lower and rear edge serrate, scaly (Ref. 4393). Very young with minute villiform teeth in single row in jaws; none visible in older specimens; palatines and vomer edentate, pterygoids and tongue with teeth (Ref. 4393). First dorsal fin with 4 spines, second dorsal fin with 1 spine and 8 soft rays; anal fin with 3 spines and 9 soft rays; pectoral fin with 17-18 rays; pectoral fin folded forward reaches beyond eye (Ref. 4393). Scales on lateral line 32-36; scaly process at first dorsal-fin base; 4.0-4.5 in predorsal distance; pectoral axillary scale 2.8-5.2 times in head length (Ref. 4393, 4967).

**Maximum length:** 100.0 cm TL male/unsexed (Ref. 4393); common length: 35.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Characterised by the brilliant blue tail (Ref. 4393). Body greenish dorsally, flanks and abdomen silvery; small gold patch on upper operculum and iris; caudal fin bright blue and pectoral fins yellow with dark blue spot dorsally at origin (Ref. 9812).

**Distribution:** Indo-Pacific: from South Africa through parts of Indonesia to parts of Micronesia and Melanesia; north to the Mariana Islands and southern Japan (Ref. 9812).

**Notes:**

### *Crenimugil crenilabis* (Forsskål, 1775)

**Common names:** Caanood (Somalia), Frainglip-harder (South Africa), Fringelip mullet (old FAO name, AFS, South Africa), Lisa labiada (FAO), Mkizi (Tanzania), Mulet boxeur (FAO), Mulet ordinaire (Seychelles), Tainha labiada (Mozambique), 粒唇鲮 (FAO).

**Description:** Characterized by having circumpeduncular scales 19-20, cycloid scales or weakly ctenoid; snout shorter than eye diameter, 5.2-9.5 in head length; very thick upper lip with 1-10 rows of papillae (in fish larger than about 7 cm TL); thin lower lip, anterior margin turned out and downwards; inner part of lower lip with 1-2 rows of papillae; narrow rim around eye formed by adipose eyelid; preorbital concave on anteroventral edge (Ref. 90102).

**Maximum length:** 60.0 cm TL male/unsexed (Ref. 9710); common length: 26.0 cm SL male/unsexed (Ref. 9812).

**Colour:** Silvery in color, greenish olive above; pectoral fins pale yellow with purplish axillary spot, other fins grey (Ref. 4393).

**Distribution:** Indo-Pacific: Red Sea and East Africa to the Line and Tuamoto islands, north to southern Japan, south to Lord Howe Island.

**Notes:**

*Crenimugil seheli* (Fabricus, 1775)

**Common names:** Bloukol-harder (South Africa), Blue-spotmullet (Djibouti), Bluespot mullet (FAO, South Africa), Caanood (Somalia), Lisa de mancha azul (FAO), Mkizi (Kenya, Tanzania), Muge (Réunion), Mulet (Mauritius, Réunion), Mulet à queue bleue (Mauritius), Mulet à tache bleue (FAO, Djibouti), Mullet (Mauritius), Tainha mancha azul (Mozambique), بوري ذو بُقعة زرقاء (FAO).

**Description:** Diagnosis: membranous, digitate posterior margin on scales; snout shorter than eye diameter; slender maxilla and weakly curved ventrally at posterior tip, partially or completely concealed; poorly developed adipose eyelid as rim around eye; preorbital weakly concave on anteroventral edge (Ref. 90102).

Description: No teeth in lips or on palatines, but vomer and tongue dentate; preorbital margin scaly, bent, the notch and serrations become obscured with growth (Ref. 4393). First dorsal fin with 4 spines, second dorsal fin with 1 spine and 8 soft rays; anal fin with 3 spines and 9 soft rays; pectoral fin with 18 rays (Ref. 4393). Scales on lateral line 38-42; scaly process at 1st dorsal fin base 4.2-5.0 times in predorsal distance; pectoral axillary scale 3.2 times in head length (Ref. 4393, 4967).

**Maximum length:** 60.0 cm TL male/unsexed (Ref. 9710); common length: 40.0 cm TL male/unsexed (Ref. 5450).

**Colour:** Bluish brown or green dorsally; flanks and abdomen silvery; dusky spots on upper row of scales, giving indistinct longitudinal stripes (Ref. 9812). Dorsal and upper lobe of caudal fin with dark blue tip; anal, pelvic, and pectoral fins yellow; pectoral fins also with dark blue spot dorsally at origin (Ref. 9812).

**Distribution:** Indo-Pacific: Red Sea south to Transkei, South Africa (Ref. 4393) and east to the Hawaiian and Marquesan islands, north to southern Japan, south to New Caledonia and Norfolk Island (Ref. 8879) and Tuamotu Islands (Ref. 90102).

**Notes:**

*Ellochelon vaigiensis* (Quoy & Gaimard, 1825)

**Common names:** Caanood (Somalia), Lisa mopiro (FAO), Mkizi (Tanzania), Mulet mopiro (FAO, Djibouti), Squaretail mullet (FAO, AFS, South Africa), Stompstert-harder (South Africa), Super-tail mullet (Djibouti), Tainha mopiro (Mozambique), بوري ذيل مُرَّع (FAO).

**Description:** Diagnosis: robust body; usually with 16 pectoral-fin rays; 25-29 longitudinal scales; 16 circumpeduncular scales; weakly ctenoid scales; adults with longer snout than eye diameter, shorter in juvenile; poorly developed adipose eyelid, forming narrow rim around eye; weak notch on anteroventral edge of preorbital; truncate caudal fin; colour olive-brown dorsally, flanks and belly silvery to whitish; about 6 brownish stripes on flank formed by longitudinal marks on scales; fins yellowish white with dusky margins except caudal fin yellow and pectoral black dorsally and yellow ventrally (completely black in young); no axillary scale visible in the pectoral fins (Ref. 9812, 90102).

Description: Head broad and flat; adipose eyelids vestigial (Ref. 4393). Adults without teeth; juveniles have scattered fine ciliate teeth on upper lip, very few on lower lip; tongue dentate (Ref. 4393). First dorsal fin with 4 spines, second dorsal fin with 1 spine and 8 soft rays; anal fin with 3 spines and 8 soft rays; pectoral fin with 16 rays; pectoral fin bent forward reaches front of eye; second dorsal and anal fin scaly (Ref. 4393). Scales on lateral line 26-28; scaly process at first dorsal-

fin base 6-8 times in predorsal distance; no pectoral axillary scale visible; scales large, ctenoid, each with a short mucous canal; preorbital notched, denticulate, rear margin broadly rounded (Ref. 4393).

**Maximum length:** 63.0 cm TL male/unsexed (Ref. 9710); common length: 35.0 cm TL male/unsexed (Ref. 9812).

**Colour:** Light olive above, silvery on sides, dirty yellowish below; dusky streaks along upper scale rows; most fins dusky, pectoral fin black in young, lower margin yellow in adults; iris with yellow reflections; a dusky fish with a truncate tail (Ref. 4393).

**Distribution:** Indo-Pacific: Red Sea and East Africa to the Tuamoto Islands, north to southern Japan, south to southern Great Barrier Reef and New Caledonia (Ref. 9812).

**Notes:**

*Mugil cephalus* Linnaeus, 1758

**Common names:** Antafa (Madagascar), Antendro (Madagascar), Bouchakfa (Morocco), Bouri (Egypt, Tunisia), Bouri kabir elras (Egypt), Caanood (Somalia), Deem (Senegal), Diabaï (Senegal), Dème (Senegal), Eguisse (Senegal), Eirigo-do-rio (Cape Verde), Flathead grey mullet (FAO), Flathead mullet (Kenya, Namibia, South Africa), Gestreifte Meeräsche (Namibia), Gewöhnliche Meeräsche (Namibia), Gis (Senegal), Grey mullet (Mauritius), Großkopf-Meeräsche (Namibia), Guiss (Senegal), Guéseou (Benin), Jabaay (Senegal), Jompo (Madagascar), Kunungui (Sierra Leone), Lisa rayada (AFS), Lissa amaria (Mauritania), Lizza (Mauritania), Lombbie (Sierra Leone), M'Hizi (Comoros), Ma sek (Sierra Leone), Mile (Seychelles), Mkizi (Tanzania), Mollit (Sierra Leone), Muge (Réunion), Mugil (Mauritania), Mulet (Réunion, Senegal), Mulet cabot (old FAO name, Mozambique, Réunion), Mulet jaune (Mauritania), Mulet jeune (Senegal), Mulet voilé (Mauritius), Mulet à grosse tête (FAO), Nyarongue (Mozambique), Ociangne (Senegal), Olhal (Cape Verde), Olhalvo (Cape Verde), Papalvo (Cape Verde), Pardete (FAO), Platkop-harder (South Africa), Platkopharder (Namibia), Roumediabou (Senegal), Si-agne (Senegal), Sibó (Mozambique), Striped mullet (AFS), Tagana (Cape Verde), Tainha cabeça achatada (Mozambique), Tororaka (Madagascar), Tshulwa (Mozambique), Wutsuma (Mozambique), Zompona (Madagascar), Zoulé (Mauritania), 𩚑 (FAO).

**Description:** Diagnosis: body stout, cylindrical in cross-section, slightly compressed; head broad and flattened (Ref. 57400). Well developed adipose eyelid (Ref. 40476, 57400) covering most of pupil (Ref. 57400). Upper lip thin and without papillae (Ref. 57400), with 1-2 outer rows of small, moderately close-set, unicuspid teeth and up to 6 inner rows of smaller, bicuspid teeth (Ref. 81659). Lower lip with outer row of small unicuspid teeth and sometimes 1 or more inner rows of smaller, bicuspid teeth (Ref. 81659). Hind end of upper jaw reaching a vertical line from anterior eye margin; maxillary pad not visible below corner of mouth when closed; origin of 1st dorsal fin nearer to snout tip than to caudal-fin base (Ref. 57400). Anterior parts and bases of 2nd dorsal and anal fins with a moderately dense coverage of scales (Ref. 57400, 81659). Pectoral axillary process (Ref. 57400). 13-15 scale rows between origins of dorsal and pelvic fins (Ref. 57400, 81659). Pelvic fins, anal fin, and lower lobe of caudal fin yellowish in specimens from the tropical Atlantic coast of Africa (Ref. 57400, 81659).

Description: lips thin; pectoral fins short (when folded forward does not reach eye); anal spines 3 in adults, anal soft rays 8 in adults, 9 in larvae (Ref. 40476). 36-42 (usually 38 or 39) scales in longitudinal series (excluding scales on caudal fin base); 13-15 scales between pelvic and first dorsal fins; anal fin with 3 spines and 8 (rarely 9) segmented rays in adults (first spine very short and usually

hidden by overlying scales), usually 2 spines and 9 soft rays in juveniles <35 mm SL; pectoral fin 61-83% of head length, with 1 short, unsegmented ray dorsally and 15-17 (mode 16) longer, segmented rays; pharyngobranchial organ with single, large valve, often shorter (anteroposteriorly) than deep (dorsoventrally)(Ref. 81659).

**Maximum length:** 100.0 cm SL male/unsexed (Ref. 2804); common length : 50.0 cm SL male/unsexed (Ref. 7399).

**Colour:** live specimens: dorsally greyish olive, greyish brown (Ref. 81659), bluish-grey (Ref. 57400) to olive-green (Ref. 40476). Flanks silvery(-grey)(Ref. 40476, 57400, 81659) with golden reflections (Ref. 57400) and 7-10 longitudinal dark bands following rows of scales (Ref. 57400, 81659), sometimes distinctive (Ref. 40476), bands less conspicuous on ventral parts of flanks (Ref. 81659). Fish from estuarine waters may have duller flanks and be duller blue or dirty brown dorsally (Ref. 81659). Abdomen off-white (Ref. 40476, 81659). Fins dusky, with numerous fine black speckles, particularly on dorsal and caudal fins; pelvic fins paler than other fins (Ref. 81659). Pelvic fins, anal fin and lower lobe of caudal fin yellowish in specimens from the tropical Atlantic coast of Africa (Ref. 57400, 81659). Dark spot at origin of pectoral fin (Ref. 81659). Preserved specimens: dorsum dark brown, flanks lighter brown or silvery with longitudinal dark bands, and ventral parts of body pale/yellowish or silvery (Ref. 81659).

**Distribution:** Cosmopolitan in coastal waters of the tropical, subtropical and temperate zones of all seas. Eastern Pacific: California, USA to Chile (Ref. 2850). Western Pacific: Japan to Australia (Ref. 9812). Western Indian Ocean: from India to South Africa (Ref. 4393). Western Atlantic: Nova Scotia, Canada to Brazil (Ref. 7251); Cape Cod to southern Gulf of Mexico (Ref. 26938); absent in the Bahamas and most of West Indies and Caribbean (Ref. 7251, 9761). Eastern Atlantic: Bay of Biscay to South Africa, including the Mediterranean Sea and Black Sea (Ref. 7399). Reported in Sea of Okhotsk (Ref. 50550).

**Notes:**

*Osteomugil cunnesius* (Valenciennes, 1836)

**Common names:** Caanood (Somalia), Langarm-harder (South Africa), Lisa de aleta larga (old FAO name), Longarm mullet (FAO, South Africa), Mkizi (Tanzania), Muge (Réunion), Mulet (Réunion), Mulet longue aile (old FAO name), Tainha de barbatana grande (Mozambique).

**Description:** Description: Body spear-shaped from side and wedge-shaped in cross-section (Ref. 52193). Head obtusely pointed; eyes latero-ventral more visible from below; mouth terminal; maxilla exposed when shut, upper jaw notched for median process on lower jaw, posterior tip of upper jaw hidden when mouth closed; lips thin; teeth small, villiform; eyes lateral with well developed adipose eyelids (Ref. 2109, 52193). Dorsal fin with 4 spines, 2 unbranched and 7-8 branched rays; anal fin with 3 spines and 9 soft rays; scaly process at base of first dorsal fin; origin of second dorsal fin behind origin of anal fin; pectoral fins set at declined angle to body, 86-97% of head length, reaching beyond eye when folded forward, and reaching below origin of first dorsal fin with axillary scale nearly half the length of fin (Ref. 2109, 52193). Scales in lateral series 30-43, scales with membranous digitated hind margin (Ref. 2109).

**Maximum length:** 41.0 cm TL male/unsexed (Ref. 52193); common length: 25.0 cm TL male/unsexed (Ref. 30573).

**Colour:** greenish-grey dorsally, sides silvery; second dorsal and anal fin with black margins (Ref. 9812). Faint longitudinal stripes along upper scale rows (Ref. 52193).

**Distribution:** Indo-West Pacific (Ref. 4393), including African east coast river estuaries as far south as Algoa Bay, South Africa (Ref. 52193). Recorded as far inland as Zimbabwe on the Save River (Ref. 52193).

**Notes:**

### *Planiliza alata* (Steindachner, 1892)

**Common names:** Diamant-harder (South Africa), Diamond mullet (FAO, AFS, South Africa), Lisa diamante (FAO), Mbinini (Kenya), Mulet diamant (FAO), Tainha diamante (Mozambique).

**Description:** Description: Adipose eyelids feeble; tongue notched in front; lips thin, lower edentate, upper with 2 rows recurved teeth; teeth on pterygoid and tongue, none on palatines and vomer; preorbital slightly emarginate, denticulate and truncate behind (Ref. 4393). First dorsal fin with 4 spines, second dorsal fin with 1 spine and 8 soft rays; anal fin with 3 spines and 9 soft rays; pectoral fin with 16 rays; second dorsal fin and anal fin falcate; pelvic fin about as long as pectoral fin in adults, shorter in juveniles; pectoral fin folded forward reaches front of eye or beyond (Ref. 4393). Scales on lateral line 29-32; scaly process at first dorsal-fin base 6.0-6.7 times in predorsal distance; no pectoral axillary scale (Ref. 4393).

**Maximum length:** 75.0 cm TL male/unsexed (Ref. 9812); common length: 35.0 cm TL male/unsexed (Ref. 9812).

**Colour:** Scale margins dark, especially dorsally, giving the dull grey body the characteristic reticulate appearance; pelvic fins bright yellow or orange (Ref. 4393).

**Distribution:** Indo-West Pacific: East Africa south to Algoa Bay, South Africa (Ref. 4393); Madagascar, northern Australia (Timor Sea), New Guinea and Tonga (Ref. 9812). Also reported from the Marquesas (Ref. 12792) and from the lower Zambezi River in Africa (Ref. 39494).

**Notes:**

### *Planiliza macrolepis* (Smith, 1846)

**Common names:** Caanood (Somalia), Grootskub-harder (South Africa), Kampango (Kenya), Large scale mullet (old FAO name), Large-scale mullet (old FAO name, Kenya, South Africa), Largescale mullet (FAO), Lisa godeya (FAO), Mkizi (Tanzania), Mulet rond (Seychelles), Mulet à grandes écailles (FAO), Tainha godé (Mozambique), Zompona (Madagascar).

**Description:** Description: No adipose eyelids; upper jaw, maxilla, exposed when mouth shut (Ref. 52193). Dorsal fin with 5 spines and 8 soft rays; anal fin with 3 spines and 9 soft rays; origin of anal fin in advance of origin of second dorsal fin (Ref. 52193). Scales in lateral series 33-35 (Ref. 52193). With rudimentary axillary scale (Ref. 9812).

**Maximum length:** 60.0 cm SL male/unsexed (Ref. 4967); common length: 26.0 cm SL male/unsexed (Ref. 4967).

**Colour:** Greenish-grey dorsally; flanks and abdomen silvery; fins grey or bluish with dusky margins and may appear yellowish at base (Ref. 9812). Pectoral fin with golden base, and perhaps a dark spot (Ref. 9812).

**Distribution:** Indo-Pacific: east coast of Africa, south to Eastern Cape in South Africa (Ref. 52193), including Madagascar, Seychelles, Rodriguez; north to Sri Lanka and India (except Bay of Bengal), Andaman and Nicobar Islands, east to Indonesia, China, the Philippines, Japan, Marshall and Tuamoto islands, Melanesia and Polynesia (Ref. 2830). Distribution includes the Red Sea (Ref. 84159) and Persian Gulf (Ref. 66734).

**Notes:**

### *Planiliza melinoptera* (Valenciennes, 1836)

**Common names:** Caanood (Somalia), Giantscale mullet (South Africa), Lisa otomebora (FAO), Mkizi (Tanzania), Mulet otomebora (FAO), Otomebora mullet (FAO), Reuseskub-harder (South Africa), St. Lucia mullet (South Africa), St. Lucia-harder (South Africa), Tainha Lucia (Mozambique), Tainha otomébora (Mozambique), عَبْرُوم لِيذ يَرُوب (FAO).

**Description:** Description: Rear adipose eyelid covers about 1/3 iris, and is better developed than front eyelid; preorbital unnotched, bent slightly downward, edge strongly serrate; teeth in upper jaw, none in lower jaw; all palate bones edentate, tongue toothed (Ref. 4393). First dorsal fin with 4 spines, second dorsal fin with 1 spine and 8 soft rays; anal fin with 3 spines and 9 soft rays; pectoral fin with 15 rays; dorsal spines strong (Ref. 4393). Scales on lateral line 26-28; scaly process at first dorsal-fin base 4.5 times in predorsal distance; no pectoral axillary scale, but behind upper part of pectoral-fin base is a small scaly process; second dorsal fin completely scaly with heavy basal scaly sheath (Ref. 4393).

**Maximum length:** 30.0 cm SL male/unsexed (Ref. 9812); common length: 18.0 cm SL male/unsexed (Ref. 9812).

**Colour:** Olive-brown dorsally, silvery or white ventrally (Ref. 9812). Distal margins of dorsal fins and caudal fin dusky (Ref. 9812).

**Distribution:** Indo-Pacific: East Africa to the Marquesan Islands, north to the Philippines and the South China Sea, south to Tonga and tropical Australia (Ref. 1602, 9812).

**Notes:**

### *Pseudomyxus capensis* (Valenciennes, 1836)

**Common names:** Freshwater mullet (South Africa), Freshwater springer (South Africa), Varswater-harder (South Africa).

**Description:** Description: Adipose eyelids rudimentary, just visible in adults; upper jaw, maxilla, mostly hidden when mouth closed (Ref. 52193). Dorsal fin with 5 spines and 8 soft rays; anal fin with 3 spines and 9 soft rays; origin of anal fin in advance of origin of second dorsal fin (Ref. 52193). Scales in lateral series 43-45 (Ref. 52193).

**Maximum length:** 45.0 cm FL male/unsexed (Ref. 52193).

**Colour:** Silvery grey in colour (Ref. 4393, 52193).

**Distribution:** endemic to South Africa, in east coastal estuaries and rivers from the Breë River to Kosi Bay (Ref. 7248, 52193).

**Notes:**

## Muraenidae

### *Strophidon sathete* (Hamilton, 1822)

**Common names:** Giant slender moray (old FAO name), Mkunga (Tanzania), Moreia gigante (Mozambique), Morenilla gigante (old FAO name), Murène fil géante (old FAO name), Slank reuse bontpaling (South Africa), Slender giant moray (old FAO name, South Africa).

**Description:** Body moderately elongate, cylindrical in front, compressed along tail; eyes small; teeth small, biserial, inner series enlarged; head not obviously distinct from trunk although the profile is moderately steep; very large mouth, extending to well beyond eye; biserial sharp teeth on jaws, larger in front and in inner row; dorsal fin inserted on head before gill-opening; scales absent (Ref. 4832).

**Maximum length:** 400 cm TL male/unsexed (Ref. 3258); common length: 70.0 cm TL male/unsexed (Ref. 3258).

**Colour:** Brownish grey above, lighter below (Ref. 3257).

**Distribution:** Indo-West Pacific: Red Sea and East Africa to the western Pacific.

**Notes:**

## Nothobranchiidae

### *Nothobranchius furzeri* Jubb, 1971

**Common names:** African turquoise killifish (Mozambique, Zimbabwe), Blougroen kuilvissie (South Africa), Turquoise killifish (South Africa, Zimbabwe).

**Description:** Description: Dorsal fin with 14-15 rays; anal fin with 14-16 rays (Ref. 52193). Scales in lateral series 28-30 (Ref. 52193).

**Maximum length:** 6.5 cm TL male/unsexed (Ref. 27139).

**Colour:** Male colouration distinctive, scale centres turquoise, edged with crimson; dorsal fin and basal portion of caudal and anal fins pale blue with deep red or liver spots and bars; opercular membranes black; edge to dorsal and anal pale blue; caudal fin with concentric yellow-orange and black bands; pectoral fins edged with blue; pelvic fins with deep red markings (Ref. 52193). Female colouration as in *Nothobranchius orthonotus* (Ref. 52193).

**Distribution:** Pans in Ghona-re-Zhou Game Reserve in southeastern Zimbabwe. Reported from Save River (Ref. 13332). Extremely rare and is threatened by habitat destruction and insecticide spraying.

**Notes:**

### *Nothobranchius hengstleri* Valdesalici, 2007

**Common names:**

**Description:** Diagnosis: *Nothobranchius hengstleri* is distinguished from *N. melanospilus* and *N. cf. melanospilus* on the basis of male and female colouration, and by a more convex dorsal profile; male *N. hengstleri* differs from male *N. melanospilus* in having a greater body depth, 30.4-31.8% of standard length vs. 29.3-30.3%, a longer head, 33.3-33.5% of standard length vs. 26.8-28.3%, a longer prepelvic length, 49.6-50.1% of standard length vs. 45.6-48.9%; males and females have fewer scales in longitudinal series, 25-26 vs. 31-32; male *N. hengstleri* differs from male *N. cf. melanospilus* in having a greater body depth, 30.5-31.8% of standard length vs. 25.6-28.2%, a longer head, 33.3-33.5% of standard length vs. 29.5-32.6%; males and females have fewer scales in the longitudinal series, 25-26 vs. 29-30; males differ from males of the other two species in having a deeper red colouration over the entire body and head, a spotted anal fin, well defined brown spots over entire fin vs. few spots limited at base, a different caudal-fin pattern, deep red, with a well defined complete black margin vs. red, without any particular marking or with thin rudimentary black margin sometimes reduced on upper and lower angle, and a different caudal fin shape, perfectly rounded vs. rounded to subtruncate; female *N. hengstleri* differ from female *N. melanospilus* by the spots on body and fins, absent vs. present, and by the caudal fin shape indicated immediately before; they also differ from female *N. cf. melanospilus* by the spots on body and fins, absent vs. present but rudimentary in some populations, absent in other populations (Ref. 59960). Among other closely related species, male *N. hengstleri* differs from male *N. vosseleri* in having a longer head, 33.3-33.5% of standard length vs. 25.1-31.5%, anal fin pattern, spots forming approximately three or four arch-like stripes in middle part of fin vs. small spots extending on fin rays and irregular stripes, male *N. vosseleri* from Korogwe area by dorsal and anal fins colouration, yellow-green vs. yellow-grey to pale blue, males and females with fewer scales in longitudinal series, 25-26 vs. 25-31, and fewer anal fin rays, 14-16 vs. 15-18 (Ref. 58960). Male *N. hengstleri* differs from male *N. interruptus* in having a deeper red colouration over the entire body and head, caudal fin

colouration, deep red with complete black margin vs. pale to clear red with irregular blue-grey to almost colourless border, dorsal fin colouration yellow-green, with red to brown spots vs. blue-grey to olive with dark grey spots, anal fin colouration yellow-green with red/brown spots vs. olive-yellow to pale blue with some grey spots near fin base, males and females with fewer scales in longitudinal series, 25-26 vs. 27-32, and caudal fin shape perfectly rounded vs. subtruncate (Ref. 58960). Male *N. hengstleri* differs from male *N. jubbi* in having a deeper red colouration over the entire body and head, dorsal fin colouration yellowish with red/brown spots vs. blue-grey to olive with red brown spots, anal fin colouration yellow-green, with red-brown spots vs. olive-yellow to pale blue with some grey spots near fin base, caudal fin colouration deep red with complete black margin vs. blue-grey with a pattern of red-brown spots and a white margin in blue morph and clear red followed by a wide blue-grey band and white border in red morph, female *N. hengstleri* differs from female *N. jubbi* in body and unpaired fins pattern not marked vs. dark border on body scales and small dark grey marking at base of fins, males and females with fewer scales in longitudinal series, 25-26 vs. 29-32, fewer dorsal fin rays, 13-16 vs. 15-20, fewer anal fin rays, 14-16 vs. 15-19, and caudal fin shape perfectly rounded vs. subtruncate (Ref. 58960). Male *N. hengstleri* differs from male *N. elongatus* in having a deeper red colouration over the entire body and head, anal fin colouration yellow-green, with red/brown spots vs. yellow-grey with few red spots near fin base, males and females have fewer scales in longitudinal series, 25-26 vs. 30-32, fewer anal fin rays, 14-16 vs. 16-18, and caudal fin shape perfectly rounded vs. subtruncate (Ref. 58960).

Description: A robust, moderately deep-bodied *Nothobranchius* with pointed snout, terminal mouth directed upward (Ref. 58960). Dorsal-fin rays 13-16; anal-fin rays 14-16 (Ref. 58960). Longitudinal series of scales 25-26 and 2-4 on caudal-fin base (Ref. 58960). Cephalic squamation pattern variable, including showing G-type; anterior neuromast series on head 'open' type; central series in two shallow grooves, lined with low lobes; posterior cephalic neuromast series with curved shallow pits on each side; preopercular neuromast system in open groove, distal ridge slightly overlapping opercle; one neuromast on each scale of mid-lateral line (Ref. 58960).

**Maximum length:** 4.1 cm SL male/unsexed (Ref. 58960); 4.1 cm SL (female).

**Colour:** Colour in life of males: scales on body and head light blue, with distinct red margins, resulting in a reticulated pattern; scale margins in ventral area orange; snout, throat, frontal and upper/dorsal part of head deep red; scales on middle part of caudal peduncle and on caudal fin base red; dorsal fin yellowish-green, with pattern of red/brown spots forming arch-like stripes and narrow lines; spots on distal part of fin smaller and more dense, with white to light blue border and with thin submarginal blue band; anal fin yellow-green, with pattern of red/brown spots forming approximately three or four arch-like stripes in middle part of fin; spots near base distally fused in narrow lines extending onto fin rays; fin with white to light blue border; caudal fin deep red, with complete black margin; pelvic fins light yellow-green, with some brown spots parallel to fin rays, light blue border and brown submarginal band; pectoral fins hyaline, with light blue margin; iris golden, with light blue iridescences and faint dark vertical bar (Ref. 58960). Colour in life of females: body pale olive-brown, darker grey-brown dorsally; light brown to almost silvery-white ventrally; flank scales with light blue iridescence; unpaired and paired fins hyaline; iris golden, with a faint dark vertical bar (Ref. 58960). Colour in alcohol of males: body scales light brown to whitish, almost all scales with distinct dark red margin; dorsal fin light brown with a pattern dark brown spots; anal fin light brown; caudal fin light brown with dark red lines extending on fin rays; pelvic and pectoral fins light brown; iris bluish (Ref. 58960). Colour in alcohol of females: body light brown to whitish, scales with a narrow brown margin; opercular and ventral area yellowish to light orange; unpaired and paired fins pale light brown to whitish; iris bluish (Ref. 58960).

**Distribution:** near Nassoro village, Cabo Delgado Province, northeastern Mozambique (Ref. 58960).

**Notes:**

*Nothobranchius kadleci* Reichard, 2010

**Common names:**

**Description:** Diagnosis: *Nothobranchius kadleci* is distinguished from *N. furzeri* by the smaller depth of the dorsal fin, 17.9-31.0% of standard length vs. 27.4-37.7% in males, 14.9-17.6% of standard length vs. 19.0-21.9% in females; smaller depth of the anal fin, 17.4-25.8% of standard length vs. 22.4-32.4% in males, 17.3-19.2% of standard length vs. 19.3-24.5% in females; larger preanal distance, 64.0-65.8% of standard length vs. 58.9-61.3%, in females; presence of red colour on gill membrane and lips and red pectoral fins vs. no red colour on gill membrane and lips and typically yellow pectoral fins in *N. furzeri*; absence of black marginal band on caudal fin, present in some male *N. furzeri*; and a higher amount of red on caudal and dorsal fins and on body in males (Ref. 83370). It is distinguished from sympatric *N. orthonotus*, including putative *N. kuhntae* and *N. mayeri*, by the shape of the frontal region, convex in *N. kadleci* vs. flat in *N. orthonotus*; the presence of red pectoral fins with white margins, often with a bluish tint, vs. *N. orthonotus* with transparent or whitish pectoral fins with red margins; red background colour on the head covered with small to large light blue marking, vs. *N. orthonotus* with red spots on white to grey background colour of the head and, in most populations, also on anterior ventral part of the body; shorter preanal distance, 58.4-61.2% of standard length vs. 62.7-72.5%; and distance between pelvic and anal fins, 10.2-13.5% of standard length vs. 13.4-16.6%, in males (Ref. 83370). This species also differs from sympatric *N. rachovii* in males by lack of black margin of the caudal fin; distance between pectoral and pelvic fins, 15.1-21.7% of standard length vs. 12.8-16.7%; minimal body depth 15.0-16.9% of standard length vs. 13.5-15.4%; eye diameter 22.1-27.3% of head length vs. 26.0-32.6%; in females by preanal distance, 64.0-65.8% of standard length vs. 61.8-64.5%; length of caudal peduncle, 20.1-21.6% of standard length vs. 13.4-20.1%; depth of dorsal fin, 14.9-17.6% of standard length vs. 16.8-23.2%; and depth of anal fin, 17.3-19.2% of standard length vs. 21.0-23.2% (Ref. 83370).

Description: A robust *Nothobranchius* species with a characteristic convex frontal region, in mature males sometimes exaggerated into a distinctive frontal hump (Ref. 83370). The dorsal fin 13-14 rays, anal fin 13-16 rays, pelvic fin 6 rays and pectoral fin 16-18 rays; in males, pectoral fins typically overlap with pelvic fins, 50% of the pectoral fin is beyond the anterior margin of pelvic fin; pelvic fins reach or slightly overlap the base of the anal fin; the longest rays of dorsal and anal fins reach or extend beyond the anterior margin of the caudal fin; in females, the longest rays of the pelvic fin just reach the anal fin base; about 30% of the pectoral fin extends beyond the base of the pelvic fin; the tip of female anal fin does not reach the caudal fin, but the dorsal fin sometimes reaches the caudal fin (Ref. 83370). The longitudinal series possesses 27-29 scales; one large male with 34 scales in the longitudinal series was recorded (Ref. 83370).

**Maximum length:** 3.9 cm SL male/unsexed (Ref. 83370).

**Colour:** Live colouration in males: colouration varies from deep red to light blue and appears to be continuous rather than falling into two discrete colour forms; fully red males have an entirely red caudal fin; the dorsal fin is red with a narrow white margin and white, over the entire fin, or yellow, in the anterior 1/3 of the fin, irregular dots and lines on the fin membrane; the anal fin is red with a narrow white margin and white dots or lines, though white marking is less well developed than in the dorsal fin; pectoral fins are red with white or light blue tips; ventral fins are red, sometimes with

traces of white marking; the body is red, including the head, lips and gill membrane; scales have large light blue centres, giving an impression of a reticulated pattern on the entire body; in blue males, the base colour of the fins is also red, but light blue, or sometimes whitish, dots and lines are abundant on all fins except for the pectoral fins, which are always red in wild, sexually mature males, though red colour may be less developed in subadult males; in blue males, especially subadult specimens, light blue marking on the body covers a large extent of the red, including a large area of the head; the eyes of all males are orange to gold with a dark vertical band (Ref. 83370). Live colouration in females: all fins are transparent; a slight yellowish tint may be present on the distal part of the dorsal and anal fins; the body is light yellow to light brown, with the posterior part of scales shining an iridescent light blue; sometimes, small black dots appear on the body; the eye is orange to gold, with a black vertical band (Ref. 83370). Colouration in preservative: male colouration yellow to light brown, similar to live colouration of females, and the pelvic part whitish; black marking is present on the opercular region, gill membrane and distal part of dorsal fin of some individuals; small black dots are present on the caudal and dorsal fins; the anal, pelvic and pectoral fins are orange; female body colouration is identical and fins are transparent; rarely, the black dots are visible (Ref. 83370).

**Distribution:** central Mozambique, north of the Save River, including Save, Gorongose, Pungwe and Zangue rivers (Ref. 83370).

**Notes:**

*Nothobranchius kirki* Jubb, 1969

**Common names:** Redfin notho (AFS).

**Description:** Description: Snout short, flat and broad; in mature males the snout is covered with numerous small tubercles which extend to forehead, edges of adjacent scales and margins of orbits; these tubercles also appear on rays of dorsal and anal fins; mouth directed upwards, lower jaw projecting; teeth in upper jaw conical, sharply pointed, those of outer series largest; teeth in lower jaw mostly coarse with flattened crowns (Ref. 96544). Dorsal fin with 15-17 rays; anal fin with 15-18 rays; origin of dorsal fin over origin of anal except in some distorted ovigerous females where the anal fin is displaced slightly posteriorly; mature males have tips of anal and caudal rays extended to beyond membrane of these fins, a feature not evident in female material; in specimens of the same size there is no significant difference in size of the anal fins, but males have slightly larger dorsal fins, the posterior rays being longer (Ref. 96544). Scales markedly deciduous in preserved material, 26-28 in longitudinal series, lateral line pores absent; scales around body immediately in front of pelvic fins 22-24 (Ref. 96544).

**Maximum length:** 5.0 cm TL male/unsexed (Ref. 27139).

**Colour:** living mature adult males: scale centres iridescent turquoise edged crimson, edging on scales forming a reticular pattern when fully developed; ventrally crimson from midway between insertion of pectoral fins to and along base of anal fin; crimson region broadest between pelvic fins and anal fin; pectoral fins practically transparent, pale olive; pelvic fins crimson tipped with black; anal fin crimson at base, then a clear band colourless or pale turquoise, the rest of the anal fin, except for the extreme edge where the extended rays are black, being crimson; caudal fin crimson, darker at base, with narrow black band, or, as in some specimens, a colourless posterior border; in either pattern the tips of any extended rays are black; the dorsal fin has membrane pale olive or pale turquoise with crimson to red-brown spots and irregular bands; membrane darker towards

extremity with edge turquoise; the pupil of the eye has a narrow golden border, the iris being golden, tinted turquoise in places with traces of pigmented vertical dark bar through eye; chin and throat pale golden olive, operculum turquoise with crimson markings (Ref. 96544). Colouration of living females is drab silvery-grey with pale olive or pale turquoise-tinted fins (Ref. 96544). Preserved specimens are practically featureless; both sexes have numerous small black dots visible through the scales, males being generally darker; the membrane of the dorsal fin is pigmented giving a blotchy effect; the pale band in the anal fin becomes a pigmented band of small dots; the pale band at the posterior extremity of the caudal fin is also pigmented with minute dots, as are extended tips of the rays of the anal fin and articulations of the lepidotrichia of both fins (Ref. 96544).

**Distribution:** Lake Chilwa and Lake Chiuta drainage systems, Malawi (Ref. 91043, 92979).

**Notes:**

*Nothobranchius krammeri* Valdesalici & Hengstler, 2008

**Common names:**

**Description:** Diagnosis: *Nothobranchius krammeri* can be distinguished from all other species of the genus by the following combination of unique characters: 13-15 dorsal fin rays; 14-15 anal fin rays; 24-27 scales in median lateral series, frontal squamation pattern variable, pelvic fin tips not reaching the anus, male body and head scales light blue with pale red to pale orange margin, outer rim of ventral body scales towards the belly yellow, snout reddish, throat orange to yellow, frontal and superior portion of head reddish, anal fin yellowish with a pattern of narrow pale brown lines extending to fin rays, caudal fin pale red with a small black seam along its outer margin, larger on upper and lower angle, sharply delineated hyaline submarginal band (Ref. 79559).

Description: Small, robust, deep bodied *Nothobranchius* species with a pointed snout, and upward mouth position (Ref. 79559). Dorsal fin rays 13-15; anal fin rays 14-16 (Ref. 79559). Longitudinal median lateral series of scales 24-27 and 3-4 on caudal fin base (Ref. 79559). Cephalic squamation pattern variable; cephalic neuromast series reduced, 'open type' anterior neuromast series; central series in two small shallow grooves, lined with low lobes or with two, or rarely three, single neuromasts; posterior cephalic neuromast series curved with shallow pits on each side or with a single, or up to four neuromasts; preopercular neuromast system with 10-14 neuromasts in open grooves, distal ridges slightly overlaps the bony opercle; one neuromast on each scale of median longitudinal series (Ref. 79559).

**Maximum length:** 3.3 cm SL male/unsexed (Ref. 79559); 2.7 cm SL (female).

**Colour:** Colour in live male specimens: body and head scales light blue with pale red to pale orange margin, creating a reticulated pattern on the body and the head; outer rim of ventral body scales towards the belly yellow; snout reddish; throat orange to yellow; frontal and superior portion of head reddish; dorsal fin yellowish with red brown spots, getting smaller towards distal fin part; dorsal fin seamed with an iridescent light blue to white rim; anal fin yellowish with a pattern of narrow pale brown lines extending to fin rays, fin margin white to light blue; caudal fin pale red with a small black seam along its outer margin, larger on upper and lower angle, sharply delineated hyaline submarginal band; the pale red on the caudal fin extends partially into caudal peduncle; pelvic fins yellowish to hyaline with light blue margin; pectoral fins hyaline with a light blue margin; iris golden, with a black vertical bar through the centre of the eye (Ref. 79559). Live female colouration: body pale olive-brown; darker grey-brown dorsally; lighter brown to silver ventrally;

unpaired and paired fins hyaline; iris golden, with a black vertical bar through the centre of the eye (Ref. 79559). Male colouration in alcohol: body scales light brown to whitish; scales on opercular and ventral area yellowish to light orange; almost all scales with distinct dark brown margin; dorsal fin light brown with a pattern of dark brown spots; anal fin light brown with a faint pattern, dark brown spots extending on fin rays; caudal fin brown with a fine dark brown to black seam along its outer margin, larger on upper and lower angle and a light brown submarginal band; pelvic fins light brown; pectoral fins light brown to whitish; iris bluish (Ref. 79559). Female colouration in alcohol: body scales brown; opercular and ventral area brown yellowish; unpaired and paired fins pale brown; iris bluish (Ref. 79559).

**Distribution:** ephemeral pool in the Meronvi River basin in northeastern Mozambique (Ref. 79559).

**Notes:**

*Nothobranchius krysanovi* Shidlovskiy, Watters & Wildekamp, 2010

**Common names:**

**Description:** Diagnosis: *Nothobranchius krysanovi* is distinguished from other species of the genus *Nothobranchius* by the following combination of characters: males with bright colouration consisting of alternating light blue and orange-red oblique bars on body, dorsal and anal fins, and orange-brown caudal fin with orange subterminal and black terminal band; female with faint brown oblique bars on posterior part of flanks (Ref. 85866). It can be distinguished from the other species of the subgenus *Nothobranchius* as follows: from *N. furzeri* by male colouration, higher number of dorsal fin rays, 15-17 vs. 14-15; from *N. kadleci* by male colouration and shape of the frontal region, higher number of dorsal and anal fin rays, 15-17 vs. 13-14 and 15-17 vs. 13-14; and from *N. orthonotus* by male and female colouration, and lower number of scales on the mid-longitudinal series, 27-29 vs. 28-33 (Ref. 85866). *Nothobranchius krysanovi* can also be distinguished from *N. rachovii* by its higher number of diploid chromosomes,  $2n=18$  vs.  $2n=16$ ; and from *N. pienaar* by its much lower diploid chromosome number,  $2n=18$  vs.  $2n=34$  (Ref. 85866).

Description: Robust *Nothobranchius* of medium size; snout pointed, mouth terminal, directed slightly upward; body laterally compressed and deep; dorsal profile concave on head, convex from nape to end of dorsal fin; more convex in older males than in younger specimens; profile of caudal peduncle nearly straight (Ref. 85866). Supraorbital squamation G-type with frontal part partly covered with epidermal tissue; frontal and central supraorbital neuromast systems fused and forming two distinct shallow grooves; both lined with three shallow lobes at both sides of the groove; posterior cephalic neuromast systems in two curved grooves (Ref. 85866). Dorsal fin rays 15-17, anal fin rays 15-17; pelvic fins short, not reaching origin of anal fin; pectoral fins reaching to first pelvic fin rays (Ref. 85866). Scales on the median longitudinal line 27-29 + 3 on caudal fin base, most with shallow pit with one neuromast; transverse row of scales above pelvic fins 11, circumpeduncular scales 12 (Ref. 85866).

**Maximum length:** 3.1 cm SL male/unsexed (Ref. 85866); 3.0 cm SL (female).

**Colour:** Live male: body colour iridescent light-blue; scales with distinct orange-red margins; margin of some scales on posterior part of body and caudal peduncle more distinct, forming oblique bars, lower end forward; snout and head carmine-red to orange-red, throat orange-red; back anterior to dorsal fin carmine-red or brown-red; operculum with 2-3 orange-red oblique stripes; projecting part of branchiostegal membrane red to orange-red; iris yellow-bronze to gold with incomplete dark

vertical bar; caudal fin orange-brown in the inner three quarters followed by a lighter orange subterminal band and black margin; dorsal fin bright blue with red or red-brown spots, larger in proximal part and smaller distally; spots may merge into oblong markings across fin; dorsal fin with narrow blue-white margin; anal fin similar to dorsal fin with lighter iridescent blue distal part lacking spots; ventral fins bright blue with dark red proximal spots; pectoral fins transparent translucent red with wide blue-white margin; iris golden with dark vertical bar (Ref. 85866). Live female: body colour grey-brown, darker on the back to silver on abdomen; several faint brown oblique bars, lower end to front, on posterior part of flanks; all fins colourless; iris bronze or gold with incomplete vertical dark bar (Ref. 85866).

**Distribution:** ephemeral pools and swamps on floodplains in coastal lowlands north of the lower Zambezi River in east-central Mozambique (Ref. 85866).

**Notes:**

*Nothobranchius makondorum* Wildekamp, Shidlovskiy & Watters, 2009

**Common names:**

**Description:** Diagnosis: *Nothobranchius makondorum* males are distinguished from those of the related *N. melanospilus* and *N. lucius* by a complete black margin around the red caudal fin vs. plain red caudal fin with a narrow black margin at the upper and lower corners in *N. melanospilus*, red-brown and orange-red with broad black margin in *N. lucius*, and light blue iris vs. silver in *N. melanospilus*; females are distinguished from those of *N. melanospilus* and *N. lucius* by grey spots on the sides vs. black in *N. melanospilus*, brown in *N. lucius*, and absence of spots on the head and unpaired fins vs. spotted unpaired fins in *N. melanospilus* and spotted head and unpaired fins in *N. lucius* (Ref. 83514).

Description: A species of *Nothobranchius* of relatively large size (Ref. 83514). Snout rounded, mouth subterminal, directed upward; dorsal profile slightly concave on head, concave from nape to end of dorsal fin; caudal peduncle profile straight at upper and lower sides (Ref. 83514). Dorsal-fin rays 14-17; anal-fin rays 13-19; relative position of base of first dorsal-fin ray over base of anal-fin ray 1 or 2; pelvic fin short, not reaching first anal-fin rays; pectoral fin reaching to first pelvic-fin rays (Ref. 83514). Scales on median longitudinal line 29-34 + 4-6 on caudal-fin base, most with shallow pit in center with one neuromast; transverse row of scales above pelvic fin 11-14; scales around caudal peduncle 15-16 (Ref. 83514). Supra-orbital squamation variable, but G-type in most specimens; anterior part of supra-orbital squamation partly covered with epidermal tissue; central supra-orbital neuromast system in two distinct, shallow grooves, both lined with three shallow lobes on both sides; posterior cephalic neuromast system in two curved pits (Ref. 83514).

**Maximum length:** 6.1 cm SL male/unsexed (Ref. 83514); 5.4 cm SL (female).

**Colour:** live male: body and anterior part of caudal fin light blue, abdomen white to pale blue, back brown; posterior margin of scales red to red-brown; width of margin variable at population level resulting in dominantly red or blue populations; on posterior part of body and caudal peduncle margin may, in some populations, be wider than on scales of anterior part, forming a chevron pattern, apex to rear; operculum with three red-brown oblique stripes; throat red; projecting part of branchiostegal membrane red with narrow white margin; iris light blue; posterior part of caudal peduncle and caudal fin bright red; caudal fin with grey to black margin; dorsal fin light blue-green with irregular red to red-brown stripes and spots, latter becoming denser towards distal edge;

narrow light blue to white margin present in some specimens; anal fin light blue-green, with some red to red-brown spots at base; a narrow light blue to white margin present in some specimens; some populations with red anal fin and light blue markings at base; pelvic fin similar to anal fin; pectoral fin pale pink to colourless with white posterior margin (Ref. 83514). Colouration of live female: body grey-brown, darker on back and lighter on abdomen; scales on anterior part of body with light blue centers; scales on posterior part of body and caudal fin usually with small grey spots, usually forming rearward-pointing chevron pattern; specimens without body markings may be found in some populations; all fins colourless; iris silver (Ref. 83514).

**Distribution:** temporary pools and swamps on floodplains in southeastern Tanzania and northeastern Mozambique (Ref. 83514).

**Notes:**

*Nothobranchius niassa* Valdesalici, Bills, Dorn, Reichwald & Cellerino, 2012

**Common names:**

**Description:** Diagnosis: *Nothobranchius niassa* belongs to the subgenus *Adiniops*, which has a preopercular red pattern, wide chevrons on side and a deep red caudal fin without any dark margin in males (Ref. 91043). It is distinguished from all other species of this subgenus by the unique combination of the following characters in males: dorsal fin rays 15-18, anal fin rays 15-17, light blue iris, light blue dorsal and anal fins with curved red stripes, and red pectoral fin (Ref. 91043).

Description: Somewhat elongate *Nothobranchius* species; dorsal profile nearly straight on head, convex from nape to end of dorsal-fin base; ventral profile convex, slightly concave to nearly straight on caudal peduncle posterior to dorsal and anal fin (Ref. 91043). Snout slightly pointed, mouth directed upwards, lower jaw longer than upper, posterior end of rictus at same level as or slightly above centre of eye (Ref. 91043). Branchiostegal membrane projecting posteriorly from opercle (Ref. 91043). Dorsal and anal fins posterior to mid-body, rounded, fin tips with short filamentous rays; tip of dorsal fin reaching caudal fin; dorsal and anal fins covered with an opaque mucus film and with papillate contact organs along fin rays, denser on anal fin; pectoral fin approximately triangular, tip reaching pelvic fin; pelvic fin long, tip reaching anal-fin origin; caudal fin subtruncate; dorsal-fin rays 15-18; anal-fin rays 15-17; caudal-fin rays 26; pectoral-fin rays 16; pelvic-fin rays 6 (Ref. 91043). Scales cycloid, body and head entirely scaled, except for ventral surface of head; scales in median lateral series 27-30+3-4 on caudal-fin base (Ref. 91043); cephalic squamation pattern irregular G-type (Ref. 91043). Anterior neuromast series of 'open' type; central supraorbital series in shallow groove with 2-3 neuromasts; posterior cephalic neuromast series curved with 2-3, rarely 4, neuromasts; preopercular neuromast system in open groove, distal ridge slightly overlaps opercle; one neuromast on each scale of median longitudinal series (Ref. 91043).

**Maximum length:** 2.9 cm SL male/unsexed (Ref. 91043).

**Colour:** Males with body and head scales light blue with a dark red margin, creating a reticulated pattern on body and head, posterior scales margin width on anterior part of body; posterior part of caudal peduncle, lips, snout, frontal, and dorsal portion of head red; branchiostegal membrane red with light blue rim; dorsal and anal fins red with a pattern of light blue spots, forming irregular stripes; pelvic fin red with a pattern of rounded light blue spots; pectoral fin red with light blue margin; caudal fin red; iris light blue, with faint black vertical bar through centre of eye (Ref. 91043). Females with body and head scales light brown, scales on sides with light blue to silvery centers,

ventrally whitish; opercular region silvery to whitish; paired and unpaired fins hyaline; iris silvery, with faint black vertical bar through centre of eye (Ref. 91043).

**Distribution:** seasonal pools and streams in Ruvuma River drainage, Mozambique (Ref. 91043).

**Notes:**

*Nothobranchius orthonotus* (Peters, 1844)

**Common names:** Beira killifish (South Africa), Beira-kuilvissie (South Africa), Spikkel-kuilvissie (South Africa), Spotted killifish (South Africa, Zimbabwe).

**Description:** Description: Body robust (Ref. 52193). Head large, covered with scales; mouth dorsal, lower jaw projecting beyond upper jaw (Ref. 52193). Dorsal fin with 15-16 rays; anal fin with 14-17 rays; dorsal fin far back, opposite the anal fin and generally equal in size; caudal fin large and rounded or semi-truncate (Ref. 52193). Scales in lateral series 27-32 (Ref. 52193).

**Maximum length:** 10.0 cm TL male/unsexed (Ref. 52193).

**Colour:** Females plain fleshy brown with slight silvery or bluish inflections on scales and cheeks; fins clear (Ref. 52193). Red and blue colour forms are recognised in males, but are probably different expressions of a variable colour pattern; red spots on the head are diagnostic for the species; the red form has scales with yellow or blue centres and bright red edges, red caudal, pectoral and pelvic fins and red streaks to basal portion of dorsal and anal fins; distal half of dorsal and anal fins green with maroon spots, fin edge brilliant white; in the blue form the red colour is far less accentuated and blue-centred scales are predominant, fins clear green with small red bars and spots, caudal fin practically clear (Ref. 52193).

**Distribution:** coastal plain from the lower Zambezi region south to the Mkuze River, in Malawi, Mozambique, Zimbabwe and South Africa (Ref. 3788, 52193). Populations are threatened by destruction of pans and by anti-malarial and tsetse fly spraying programs (Ref. 7248).

**Notes:**

*Nothobranchius pienaari* Shidlovskiy, Watters & Wildekamp, 2010

**Common names:**

**Description:** Diagnosis: Morphology similar to *Nothobranchius rachovii* and *N. krysanovi* but distinguished from those by a slightly deeper body in males (Ref. 85866). *Nothobranchius pienaari* is distinguished from other species of the genus by the following combination of characters: male with colouration consisting of alternating blue-green to grey-green and dark red-brown to almost black scale margins and oblique bars on body and dorsal and anal fins, dark brown spotted basal half of caudal fin, and orange subterminal and black terminal band (Ref. 85866). It can be distinguished from the other species of the subgenus *Nothobranchius* as follows: from *N. furzeri* by male colouration and a slightly higher number of dorsal fin rays, 14-16 vs. 14-15; from *N. orthonotus* by male colouration, lower number of scales on the mid-longitudinal series, 26-31 vs. 28-33; and from *N. kadleci* by male colouration and shape of the frontal region, higher number of dorsal and anal fin rays, 14-16 vs. 13-14 and 15-17 vs. 13-14 (Ref. 85866). Female distinguished by faint brown oblique bars on posterior part of flanks (Ref. 85866). *Nothobranchius pienaari* can also be distinguished from *N. rachovii* and *N. krysanovi* by a much higher number of diploid chromosomes,  $2n=34$  vs.  $2n=16$  for

*N. rachovii* and  $2n=18$  for *N. krysanovi*; it can also be distinguished from the karyotypes of *N. furzeri* and *N. orthonotus* that both have with  $2n=38$  a higher number of chromosomes (Ref. 85866).

**Description:** Robust *Nothobranchius* species of medium size; snout slightly pointed, mouth terminal, slightly upward directed; body laterally compressed and deep; dorsal profile concave on head and convex from nape to end of dorsal fin, especially in older males; upper and lower profile of caudal peduncle straight (Ref. 85866). Dorsal fin rays 14-16; anal fin rays 15-17; pelvic fins short, not reaching first anal fin ray; pectoral fin reaching past first pelvic fin ray (Ref. 85866). Scales on median longitudinal line 26-31 + 2-3 on caudal fin base, most with shallow pit in centre with one neuromast; transverse row of scales above pelvic fin 11-12; circumpeduncular scales 12-13 (Ref. 85866). Supraorbital squamation G-type; anterior scales partly covered with epidermal tissue; frontal and central supraorbital neuromast systems fused, forming two distinct, shallow grooves, both lined with three shallow lobes on both sides; posterior cephalic neuromast system in two curved grooves (Ref. 85866).

**Maximum length:** 3.9 cm SL male/unsexed (Ref. 85866); 3.6 cm SL (female).

**Colour:** Live male: body colour light to dark blue-green to green scale centres; scales with cherry-red to dark red-brown, sometimes almost black margins; these margins form narrow oblique bars, lower end forward; bars on every second row of scales; males of some populations appear very dark to almost black; head grey-brown; abdomen lighter grey-brown to pale pink, back olive-brown; operculum with 3-4 dark red-brown oblique stripes; throat pink to silver-grey depending on population; projecting part of branchiostegal membrane brick-red or red-brown; may have narrow light blue edge; iris bronze or golden with incomplete vertical dark bar; proximal part of caudal fin silver-grey, with bronze sheen in some cases, and small dark brown markings between rays; in some populations these markings can merge and form irregular cross bars; caudal fin margin black with, in most populations, a red to orange submarginal band; width of this band varies between populations from broad to narrow or barely discernable; dorsal fin light blue-grey with bronze hue and numerous dark red-brown or brown spots and stripes which may merge to form irregular bands across the fin rays; submarginal part of dorsal fin green-grey or blue-grey with small dark spots; dorsal fin with narrow white-blue margin; anal fin blue-grey with irregular red-brown spots that may merge to bands; markings are larger in proximal part of fins; submarginal parts darker; may have narrow blue-white margin; ventral fins blue-grey with red-brown markings in basal third; pectoral fins colourless with blue-white margin; iris bronze to golden with dark cross-bar (Ref. 85866). *Nothobranchius pienaari* is polymorphic in the colouration of its caudal fin; the orange submarginal band ranges from wide and very distinct to almost absent, depending on the population (Ref. 85866). Live female: body colour mainly grey-brown, darker on the back and lighter on abdomen; posterior part of flanks with several darker but faintly developed bars, inclined to the rear; fins colourless; iris bronze or golden with incomplete vertical dark bar (Ref. 85866).

**Distribution:** coastal lowlands of central and southern Mozambique and northeastern South Africa (Ref. 85866).

**Notes:**

*Nothobranchius rachovii* Ahl, 1926

**Common names:** Blouband-kuilvissie (South Africa), Blueband killifish (South Africa), Bluefin notho (AFS), Rainbow killifish (South Africa), Reënboog-kuilvissie (South Africa).

**Description:** Diagnosis: *Nothobranchius rachovii* is distinguished from other species of the genus by the following combination of characters: in males, a bright colouration consisting of alternating light blue and orange-red bars on the body and fins, orange-red head, and orange subterminal and black terminal bands in the caudal fin (Ref. 85866). It can be distinguished from the other species of the subgenus *Nothobranchius* as follows: from *N. furzeri* by male colouration, higher number of dorsal fin rays, 15-17 vs. 14-15, and a lower number of scales on the mid-longitudinal series, 26-28 vs. 28-30; from *N. orthonotus* by male colouration, lower number of scales on the mid-longitudinal series, 26-28 vs. 28-33, and shape of the dorsal profile, convex vs. flat; and from *N. kadleci* by male colouration and shape of the frontal region, higher number of dorsal and anal fin rays, 15-17 vs. 13-14 and 15-17 vs. 13-14 (Ref. 85866). Females can be distinguished by the presence of a reflective light blue spot on all scales of the flanks, vs. few, irregularly dispersed light blue-green spots in *N. furzeri* and *N. kadleci* or frequent presence of brown spots on body and fins in *N. orthonotus* (Ref. 85866). *Nothobranchius rachovii* can also be distinguished from all other species of the genus by its low number of diploid chromosomes,  $2n=16$  (Ref. 85866).

Description: A robust *Nothobranchius* species of medium size; snout pointed, mouth terminal, slightly directed upward; body laterally compressed and deep; dorsal profile slightly concave on head, convex from nape to end of dorsal fin; in older males more convex than in younger specimens; upper and lower profiles of caudal peduncle nearly straight (Ref. 85866). Supra-orbital squamation of G-type; frontal part of supraorbital squamation partly covered with epidermal tissue; frontal and central supraorbital neuromast systems, on top of the head, fused and forming two distinct shallow grooves; both lined with three shallow lobes at both sides of the groove; posterior cephalic neuromast systems in two curved pits (Ref. 85866). Dorsal fin rays 15-17, anal fin rays 15-18, relative position of base of first dorsal-fin ray over base of second or third anal-fin ray; pelvic fins short, not reaching origin of anal fin; pectoral fins reaching to origin of pelvic fins (Ref. 85866). Scales on the median longitudinal line 26-28 plus 2-3 on caudal fin base, most with a shallow pit in centre; transverse row of scales above pelvic fins 11-12, circumpeduncular scales 12-13 (Ref. 85866).

**Maximum length:** 6.0 cm TL male/unsexed (Ref. 52193).

**Colour:** Colouration: Live male: general body colour iridescent light blue to pale blue-green or blue-grey, variable according to population; head and throat orange, grading across operculum into light blue of body; posterior margin of scales orange-red to brown-red, giving a strong reticulated appearance; locally, scale margins are wider and merge to form chevron-shaped cross-bars, apex rearward; dorsal and anal fins pale blue to light blue-grey, distally with orange-red to red-brown spots and stripes; dorsal fin with narrow blue-white margin; caudal fin pale blue to blue-grey with orange-red to red-brown spots and bars in the basal half, followed by a brown band grading into a wide orange subterminal band; caudal fin margin black; ventral fins light blue with some small red proximal spots; pectoral fins pale translucent orange with light blue margin; iris golden with dark vertical bar (Ref. 85866). Live female: body colour olive grey-brown, frontal scales on flanks with iridescent light blue to silvery centers; all fins colourless; iris bronze to golden with dark vertical bar (Ref. 85866).

**Distribution:** temporary pools and swamps or water-filled depressions in the lowland floodplains of the lower Pungwe River and lower Zambezi River (Ref. 85866), probably also in floodplains of other rivers between Pungwe and Zambezi River (Ref. 85866).

**Notes:**

## Ophichthidae

### *Pisodonophis boro* (Hamilton, 1822)

**Common names:** Estuary snake-eel (South Africa), Rice-paddy eel (FAO), Serpenton des rizières (FAO), Strandmeer-slangpaling (South Africa), Tieso de los arrozales (FAO).

**Description:** Diagnosis: Body snake-like, cylindrical, compressed only along extreme tail tip; anterior nostril tubular, posterior along lower edge of lip; teeth granular to molariform, multiserial bands on jaws and vomer, but sharper on jaws and more pointed in young individuals; median fins not continuous posteriorly; extreme tip of tail stiff and finless; dorsal fin origin about a pectoral fin length behind tips of pectoral fins; lateral line inconspicuous (Ref. 4832).

Description: Body snake-like, cylindrical, compressed only along extreme tail tip; head length 9-12 times in total length; body depth 30-36 times in total length (Ref. 3972, 7245). Eye relatively small; anterior nostril tubular, posterior nostril along lower edge of lip; snout moderately protruding in front of lower jaw; teeth in jaws and on vomer granular to molariform, in multiserial bands on jaws, intermaxillary and vomer; teeth sharper, more pointed and fewer in young specimens; a small papilla on upper lip behind base of anterior nostril, a smaller one below eye; throat swollen and supported by a basket of free branchiostegal rays that overlap below (Ref. 3972, 7245). Vertical fins discontinuous posteriorly, the extreme tip of tail stiff and finless; dorsal fin originating about a pectoral fin length behind tips of pectoral fins, which are well developed; pelvic fins absent (Ref. 7245). Lateral line system inconspicuous (Ref. 7245). Vertebrae 171-180 (Ref. 3972).

**Maximum length:** 100.0 cm TL male/unsexed (Ref. 3972); common length: 70.0 cm TL male/unsexed (Ref. 7245).

**Colour:** Uniform olive brown above, lighter below (Ref. 3972, 7245). Dorsal fin with a narrow black edge (Ref. 7245).

**Distribution:** Indo-West Pacific: Somalia (Ref. 30573) and Tanzania south to Knysna, South Africa (Ref. 3972), including the Seychelles (Ref. 7245); also southern India and Sri Lanka (Ref. 7245). Widespread elsewhere from the east Indian coast throughout Indonesia to Polynesia (Ref. 7245).

#### Notes:

### *Brachysomophis crocodilinus* (Bennett, 1833)

**Common names:** Crocodile snake eel (FAO), Crocodile snake-eel (South Africa), Krokodil-slangpaling (South Africa).

**Description:** Diagnosis: Dorsal fin arising well behind pectoral tips; pectoral fins teardrop-shaped; snout very short; jaws elongate; anterior nostril in a very short tube in upper lip, closely followed by an ethmoidal pore, a barbel, and the posterior nostril which is in outer lip and entirely covered by a flap; labial cirri numerous, unbranched and slender in anterior half of lip of mandible, those posterior and along lower lip branched at tips; flesh above and behind eye laterally elevated as a ridge; dorsal head profile notably incised and medially constricted behind eyes, the flesh forming a narrow transverse ridge behind dorsal margin of eyes; head pores and lateral-line pores apparent; free sensory neuromasts visible as rows of small white spots on nape; teeth conical (Ref. 42180). Lateral-line pores and temporal pores typically in dark spots; smaller dark spots present irregularly on flank between lateral line and dorsal fin of larger specimens (Ref. 42180). Eye small, coloured like the head, and placed towards the front of the long mouth (Ref. 48635).

**Description:** Characterized by head length 6.5-8.0 times in total length; body depth 16-25 times in total length; tail length equal to or less than body length (head and trunk) (Ref. 3972, 90102). Snout short, 13.0-19.0 in head length; eyes prominent and bulged; gape very large; numerous close-set cirri on side of jaws; upper jaw with two rows of fang-like teeth, the inner series larger; lower jaw with well-spaced canines; largest canines in single row on intermaxilla and vomer; lips fringed (Ref. 3972, 90102). Pectoral fin present; dorsal fin origin well behind head (Ref. 3972). Vertebrae 116-124 (Ref. 3972, 42180).

**Maximum length:** 120 cm TL male/unsexed (Ref. 9710).

**Colour:** brownish, lighter below and on fins (Ref. 3972).

**Distribution:** Indo-Pacific: East Africa in Tanzania, Seychelles and Mauritius (Ref. 3972), to the Society Islands (but not the Hawaiian Archipelago), north to Japan, south to Australia (Ref. 33390).

**Notes:**

## Oxudercidae

### *Periophthalmus argentilineatus* Valenciennes, 1837

**Common names:** Barred mudskipper (FAO), Bigfin mudhopper (South Africa), Grootvinmodderspringer (South Africa).

**Description:** Diagnosis: Distinguished by the following characteristics: pelvic fins lacking frenum; little or no membrane uniting medial most pelvic rays; first dorsal fin height moderate, its margin usually convex, occasionally straight, with a black stripe inframarginally and numerous small, white spots posteriorly on fin, no elongate spines; second dorsal fin with single, dusky stripe mesially; dorsal fins not connected by membrane; first dorsal fin with 11-16 spines; longitudinal scale count 64-100; head width 14.3-22.6% of standard length; pelvic fin length 11.3-15.2% of standard length; length of anal fin base 14.0-19.4% of standard length; length of second dorsal-fin base 17.6-23.7% of standard length; total D2 elements 10-13; total anal fin elements 9-12; TRDB 18-26 (Ref. 5218).

Description: First dorsal fin with 10-17 spines, second dorsal fin with 1 spine and 10 soft rays; anal fin with 1 spine and 8-11 soft rays; pectoral fin with 11-14 rays; first dorsal fin and second dorsal fin contiguous (Ref. 2798, 5218).

**Maximum length:** 19.0 cm TL male/unsexed (Ref. 4756).

**Colour:** dusky; both dorsal fins with white margin and black stripe below (Ref. 2798).

**Distribution:** Indo-Pacific: along East African coast, from Zululand in South Africa northwards to the Red Sea and most of West Indian Ocean islands (Ref. 4756); further east to the Marianas and Samoa; north to Ryukyu Islands, south to western Australia and Oceania (Ref. 2334).

**Notes:**

## Pristidae

### *Pristis microdon* Latham, 1794

**Common names:** Caixaô (Mozambique), Chinyabanga (Zimbabwe), Diassane (Senegal), Greattooth sawfish (South Africa), Groottand-saagvis (South Africa), Kashua (Zimbabwe), Largetooth sawfish (FAO, AFS, South Africa), Mbàfou (Congo), Mvag (Gabon), Ndiassane (Senegal), Papa upanga (Kenya, Tanzania), Pejesierra (old FAO name), Poisson scie (Gabon), Poisson-scie grandent (FAO), Safone (Senegal), Sagna (Senegal), Serra (Cape Verde), Smalltooth sawfish (Kenya, South Africa, Zimbabwe), Tubarão-serra (Cape Verde), Tubarão-serra dentuço (Mozambique).

**Description:** Diagnosis: A heavily-bodied sawfish with a short but massive saw which is broad-based, strongly tapering and with 14-22 very large teeth on each side; space between last 2 saw-teeth on sides less than 2 times space between first 2 teeth (Ref. 5578). Pectoral fins high and angular, 1st dorsal fin mostly in front of pelvic fins, and caudal fin with pronounced lower lobe (Ref. 5578).

Description: Body shark-like; head and forebody depressed; caudal region compressed (Ref. 52193). Saw relatively short and broad, length 5 times width of base in mature specimens, 17-22 widely spaced teeth on either side (Ref. 52193). Mouth ventral, straight, numerous small teeth in bands; gill slits underneath, behind origin of pectoral fins (Ref. 52193). Pectoral fins large, triangular, extending onto the sides of the head; 2 dorsal fins, origin of first dorsal fin well in front of origin of pelvic fins; anal fin absent; caudal fin with distinct lower lobe (Ref. 52193).

**Maximum length:** 700 cm TL male/unsexed (Ref. 58048); common length: 500 cm TL male/unsexed (Ref. 2683).

**Colour:** greenish, grey, olive or golden-brown above, dirty cream below (Ref. 5578, 52193).

**Distribution:** Indo-West Pacific: East Africa to New Guinea, north to the Philippines and Viet Nam, south to Australia. Also Atlantic and eastern Pacific if *Pristis perotteti* and *Pristis zephyreus* are synonymized with this species. The original description of *Pristis microdon* did not give a locality, but most authors have used the name *Pristis microdon* for the Indo-West Pacific sawfishes of this species group as contrasted from the Atlantic *Pristis perotteti* and the eastern Pacific *Pristis zephyreus*.

**Notes:**

### *Pristis zijsron* Bleeker, 1851

**Common names:** Langkam-saagvis (South Africa), Longcomb sawfish (FAO, South Africa), Narrowsnout sawfish (AFS), Requin scie (Mauritius), Tubarão-serra africano (Mozambique).

**Description:**

**Maximum length:** 730 cm TL male/unsexed (Ref. 5578); common length: 550 cm TL male/unsexed (Ref. 11228).

**Colour:** Dark grey to blackish brown above, white to yellowish below (Ref. 11228).

**Distribution:** Indo-West Pacific: Persian Gulf (Ref. 68964), Red Sea and east to South Africa, western India Sri Lanka, Laos to Papua New Guinea, south to New South Wales, western to eastern Australia (Ref. 114953).

**Notes:**

## Pristigasteridae

### *Pellona ditchela* Valenciennes, 1847

**Common names:** Aarijoog (Somalia), Alose-écaille indienne (FAO, Madagascar), Bemaso (Madagascar), Dagua (Tanzania), Dagua-papa (Tanzania), Indian pellona (FAO, Kenya, Madagascar, Mozambique, South Africa), Indiese pellona (South Africa), Saradinya (Mozambique), Sardineta indica (old FAO name), Sardineta índica (FAO), Sardinha (Mozambique), Sardinia de Indico (Mozambique), Simu (Kenya), Simu koko (Kenya).

**Description:** Diagnosis: Body moderately deep, compressed, belly with strongly keeled scutes, 17-20 pre-pelvic and 8-10 post-pelvic scutes, with a total of total 25-29 scutes (Ref. 188, 6867). Eye large; lower jaw projecting; upper jaw with a toothed hypomaxillary bone between hind tip of pre-maxilla and lower bulge of maxilla blade; lower gillrakers 22-27; dorsal fin origin near midpoint of body; pelvic fins present; anal fin with 34-42 finrays; scales with upper and lower vertical striae slightly overlapping each other at centre of scales (Ref. 188). It closely resembles *Pellona dayi*, which has only 20-21 lower gillrakers and the vertical scale striae not meeting at centre of scale; species of *Ilisha* have no hypomaxilla; other pristigasterids are much more slender and lack pelvic fins (Ref. 188).

Description: Body fairly deep and compressed, its depth 25 to 36% of standard length (Ref. 6867). Lower jaw very prominent, toothed hypomaxilla present in upper jaw; eyes large, about 30% of head length (Ref. 6867, 30573). Gillrakers 22-27 on lower arm of first arch (Ref. 188, 3259, 6867). Dorsal fin with 3-4 unbranched rays and 13-16 branched rays, its origin about midway between snout-tip and caudal fin base; pectoral fin with 1 unbranched ray and 13-17 branched rays; pelvic fins, with 1 unbranched ray and 6 branched rays, slightly in advance of dorsal-fin origin; anal fin fairly long, with 3-4 unbranched rays and 31-38 branched rays, its origin slightly behind dorsal-fin base (Ref. 3259, 6867). Scales on lateral line 37-44; scales with vertical striae discontinuous, but slightly overlapping in scale centre (Ref. 3259, 11441). Belly with strongly keeled scutes; 17-20 pre-pelvic scutes, 8-10 post-pelvic scutes, total 25-29 scutes (Ref. 3259, 6867).

**Maximum length:** 16.0 cm SL male/unsexed (Ref. 188); common length: 13.0 cm SL male/unsexed (Ref. 2871).

**Colour:** Back blue-brown, flanks silvery; fins hyaline (Ref. 3259, 6867).

**Distribution:** Indo-West Pacific: Indian Ocean: east coast of Africa northward from about Durban (Ref. 3509) to the Gulf of Oman (Ref. 188), including Madagascar (Ref. 188, 3509), the coasts of India and Andaman Sea (Ref. 188, 6867), and south to western Australia (Ref. 188); also South China Sea (Ref. 188), and Indonesia to northern Australia and Papua New Guinea (Ref. 188, 6867).

**Notes:**

## Procatopodidae

### *Lacustricola katangae* (Boulenger, 1912)

**Common names:** Kakenga matako (Angola), Kanga (Angola), Lutemba (Angola), Muka (Angola), Streep-lampogje (Namibia, South Africa), Streeplampogje (South Africa), Striped topminnow (Namibia, South Africa, Zimbabwe).

**Description:** Description: Moderately deep bodied (Ref. 52193). Dorsal fin with 8-10 rays; anal fin with 14-15 rays (Ref. 52193). Scales in lateral series 25-28 (Ref. 52193).

**Maximum length:** 5.0 cm TL male/unsexed (Ref. 52193).

**Colour:** Distinctive zigzag black band along body; abdomen and lower head white, iris, upper gill cover and scattered midbody scales iridescent blue-turquoise, fins clear or light yellow (Ref. 52193).

**Distribution:** widely distributed in southern Africa (Ref. 47311). Found in rivers and lakes of the southern Democratic Republic of Congo, Angola, Botswana, Zambia, Zimbabwe, Malawi, Mozambique, South Africa and Namibia (Ref. 3788, 47311).

**Notes:**

### *Lacustricola myaposae* (Boulenger, 1908)

**Common names:** Kakenga matako (Angola), Lumbungo (Angola), Natal topminnow (South Africa), Natalse lampogje (South Africa).

**Description:** Description: Dorsal fin with 7-10 rays; anal fin with 14-15 rays (Ref. 52193). Scales in lateral series 27-28 (Ref. 52193).

**Maximum length:** 5.5 cm TL male/unsexed (Ref. 52193); 5.5 cm TL (female); common length: 3.0 cm TL male/unsexed (Ref. 27139).

**Colour:** Fin colouration of mature males : dorsal, caudal, and anal fins sooty black with a few yellow spots and a lemon yellow outer edge (Ref. 52193).

**Distribution:** small rivers, brooks and shallow parts of larger bodies of water, estuaries and lagoons in the warm coastal plains of Natal, South Africa, from the Pongola River and Kosi system southward to the Umlalazi River near Richards Bay (Ref. 47311, 52193). Also in Transvaal, South Africa (Ref. 27139). Reports from the Okavango swamps in Botswana and the Cuanza and Cuilo in Angola probably refer to other species (Ref. 47311).

**Notes:**

### *Lacustricola hutereaui* (Boulenger, 1913)

**Common names:** Kakenga matako (Angola), Meshscaled topminnow (Namibia, South Africa, Zimbabwe), Topminnow (Namibia), Tralie-lampogje (Namibia), Tralielampogje (South Africa), Trelissed topminnow (Namibia).

**Description:** Diagnosis: *Lacustricola hutereaui* is easily distinguished from *L. chobensis* and *L. pygmaeus* by the possession of a ventral arm in the posttemporal bone vs. ventral arm absent, a sharp ventral process in the maxilla vs. ventral process absent, retroarticular smaller than

anguloarticular ventral arm vs. about the same size, a lachrymal without a posteroventral extension vs. posteroventral extension present, and by a sinuous cleithrum posterodorsal flap vs. flap rounded (Ref. 123968).

**Description:** Body short and deep, caudal peduncle length 1.0-1.5 times in depth (Ref. 52193). Dorsal fin with 7-9 rays; anal fin with 11-16 rays; caudal fin rounded (Ref. 28714, 52193). Scales in longitudinal series 23-25 (Ref. 28714, 52193). *Lacustricola hutereaui* is the only species to present the anterior portion of the infraorbital canal closed, with four pores, the mandibular canal closed, with four pores, and the neuromasts placed in deep grooves (Ref. 123968).

**Maximum length:** 3.5 cm TL male/unsexed (Ref. 52193).

**Colour:** It is possible to note the lack of intense bluish green bright metallic colouration in the flank and the presence of an intense orange colouration in the anal, dorsal, and caudal fins (Ref. 123968). Colour translucent yellowish with light iridescent blue reflections from scales, iris of eye iridescent turquoise, sooty pigment on scale edges gives mesh effect, basal sections of dorsal, anal and caudal fins with dark brown blocks (Ref. 52193).

**Distribution:** two distinct population groups; a northern in the drainage systems of Lake Chad and the Chari River in Chad; Ubangi, Kotto, Bamingui and Gribingi river systems in Central African Republic; upper and middle White Nile in Sudan; Uele and Itimbiri in northern Democratic Republic of the Congo (Ref. 47311). Also in Wagenia Falls in Democratic Republic of the Congo (Ref. 106245). Southern populations are found in the Sankuru, Lake Mweru Wantipa and Lufira River in southeastern Democratic Republic of the Congo; Lake Mweru Wantipa and Lake Bangweulu in northern Zambia, and the upper Zambezi in western Zambia; upper Zambezi, Kwilu, upper Kasai and Kwando in Angola; Chobe River and Okavango swamps in Namibia and Botswana; lower Shire in southern Malawi; some river systems flowing into the Indian Ocean in Mozambique (Ref. 47311). Okavango and Pungwe-Buzi systems (Ref. 7248, 52193). Zimbabwe, South Africa (Ref. 27139).

**Notes:**

### *Micropanchax johnstoni* (Günther, 1894)

**Common names:** Johnston se lampogie (Namibia, South Africa), Johnston's topminnow (Namibia, South Africa, Zimbabwe), Kakenga matako (Angola), Killifish (Malawi), Mukitshi (Angola), Munyanya (Angola), Namuquidji (Angola), Slender topminnow (South Africa), Topminnow (Zambia).

**Description:** Description: Body slender, elongated; caudal peduncle length more than twice its depth (Ref. 52193). Dorsal fin with 6-8 rays; anal fin with 11-14 rays; dorsal fin over posterior anal rays; caudal fin truncate or semi-truncate (Ref. 52193). Scales in lateral series 27-29 (Ref. 52193).

**Maximum length:** 8.5 cm TL male/unsexed (Ref. 31267); common length: 4.5 cm TL male/unsexed (Ref. 27139).

**Colour:** Males more colourful than females; colour translucent yellowish green with light silvery blue iridescence on body scales, sometimes an iridescent blue patch on upper half of gill cover; iris of eye silvery blue; fins clear in females, or yellow with dark yellow spots on the membrane in males; thin black edge to dorsal, caudal and anal fins (Ref. 52193).

**Distribution:** widely distributed in southern Africa; present in various lakes and river drainages in Malawi, Tanzania, Mozambique, Zambia, Angola, Namibia, Botswana, Zimbabwe, South Africa and southeastern Democratic Republic of the Congo (Ref. 47311, 52193).

**Notes:**

## Protopteridae

### *Protopterus amphibius* (Peters, 1844)

**Common names:** Dóe (Mozambique), East-Coast lungfish (South Africa), Gilled lungfish (AFS), Kamongo (Tanzania), Kenyan lungfish (Kenya), Mamba (Kenya), Ngumbi (Kenya), Nyangoro (Kenya), Ooskus-longvis (South Africa), Talakute (Kenya).

**Description:** Diagnosis: distance snout to origin of dorsal fin 1.4-1.7 times head length, or 45-56% distance snout to vent (Ref. 7248, 52193).

Description: head large (more than 30% distance snout to vent); pectoral fins filamentous with broad membranes (Ref. 7248, 52193). 35-37, sometimes more than 40, scales in a longitudinal series between the operculum and ventral fins (Ref. 41465). 27-30 pairs of ribs; 3 external gills on each side of the body (Ref. 41467).

**Maximum length:** 44.3 cm TL male/unsexed (Ref. 3498).

**Colour:** uniform blue- or slate grey, with small or inconspicuous black spots; belly pale grey; head dark below with white spots or vermiculations (Ref. 7248, 52193).

**Distribution:** East African coastal regions from Somalia and Kenya, and delta of Zambezi River (Ref. 3498). Reported from Lake Rukwa basin and flood plains of Ruaha and lower Rufiji (Ref. 4967, 41366, 89002), but this species was never positively identified from Tanzania (Ref. 27292). The presence of this species in southern Africa also requires confirmation (Ref. 7248, 52193).

#### Notes:

### *Protopterus annectens* (Owen, 1839)

**Common names:** Abiyesen (Nigeria), Abölzé (Chad), Adjulom (Chad), Afak (Sierra Leone), African lungfish (Nigeria), Age (Ghana), Ahe (Ghana), Aléwa (Chad), Badami (Cameroon), Barko (Nigeria), Bilieï (Chad), Bilzé (Chad), Bodami (Nigeria), Bonao (Cameroon), Bopr (Sierra Leone), Boïnao (Chad), Buningel (Chad), Bunyi n'gel (Nigeria), Bénin'gal (Chad), Bôda (Chad), Cambona (Gambia), Djid (Chad), Déolgho (Burkina Faso), Ebeshene (Nigeria), Ebiesieni (Nigeria), Ebii (Nigeria), Edan (Nigeria), Fuhon' (Chad), Furman'gô (Chad), Gaiwa (Ghana, Nigeria), Gaiwa chi jikinki (Ghana), Galam (Chad), Gbokoso (Nigeria), Geji (Nigeria), Grumagüi (Chad), Grumangwa (Chad), Gurman'güi (Chad), Gélam (Chad), Gôda (Chad), Hemei (Sierra Leone), Hichino (Nigeria), Hiyem (Chad), Juala (Nigeria), Kala (Chad), Kalam (Chad), Kandjikur (Chad), Kerdé (Chad), Kifi ntabo (Cameroon), Koussou (Chad), Kuri (Central African Republic), Kurmadji (Chad), Kuru (Chad), Kuta (Nigeria), Kutha (Sierra Leone), Kwono (Mali)n, Longvis (South Africa), Lungfish (Ghana, Kenya, South Africa), Lô an'di (Chad), Mai mama (Nigeria), Mamba (Kenya), Maoundé (Mali), Mboïnadji (Cameroon), Mboïnao (Chad), Moko (Burkina Faso), Momö (Burkina Faso), Morvïïni (Chad), Mudfish (Ghana), Mukedum (Chad), Mõ (Burkina Faso), Ndorgoe (Sierra Leone), Nkwi (Chad), Nsompo (Zambia), Oseïm' (Chad), Osweïn' (Chad), Reoolgo (Burkina Faso), Shéla (Chad), Sina (Mali), Sohalgayigo (Chad), Sohéla (Chad), Soïta (Chad), Séla (Chad), Sésol (Chad), Sïla (Chad), Tana lungfish (Kenya), Teilegei (Chad), Tifohör (Chad), Tiföré (Chad), Tonzi (Kenya), Touba (Senegal), Tulamkoya (Chad), Tulamkuyaya (Chad), Tupu-nyei (Sierra Leone), Turun' (Chad), Um koro (Sudan), Uron'dô (Chad), Vomgboi (Sierra Leone), Vomgboli (Sierra Leone), West African lungfish (FAO, AFS), Woodo (Burkina Faso), Wöndo (Mali), Yenshi (Nigeria), Éli (Chad), Élin'g (Chad), Élé (Chad).

**Description:** Diagnosis: distance snout to origin of dorsal fin 2-2.4 times head length, or 54-62% distance snout to vent (Ref. 52193).

Description: elongated, sub-cylindrical body tapering to a point formed the confluent dorsal and anal fins; filamentous pectoral and pelvic fins (Ref. 13337). Dorsal and anal fins with soft rays only (Ref. 52193). Head robust, body snake-like; mouth large with sharp teeth; soft, cycloid scales; nostrils open under the upper lip, hidden when mouth is closed; gill chamber openings short, restricted to sides in front of pectoral bases; small external gills present above each gill opening; anus behind pelvic base, offset on side of body (Ref. 7248, 52193). 40-50 scales in a longitudinal series between gill opening and vent, 36-40 around the body (Ref. 13337).

**Maximum length:** 100.0 cm TL male/unsexed (Ref. 3799).

**Colour:** dark olive-brown on the dorsal surface, the color paling in intensity onto the ventral surface; body covered with irregularly shaped spots (Ref. 13337), usually X-, Y- or V-shaped (Ref. 40587). Lateral line canals form wavy lines over head (Ref. 52193).

**Distribution:** *Protopterus annectens brieni*: Africa: upper Congo River (Luapula River and Upper Lualaba River), middle and lower Zambezi basin and all east coast rivers south to the Limpopo River (Ref. 3498, 13337); and Lake Rukwa (Ref. 13337). Has been translocated to additional sites in the Kruger National Park in South Africa (Ref. 52193). Reports from the upper Cubango and Okavango system (Ref. 11970) unconfirmed (Ref. 52193, 120641).

**Notes:**

## Salmonidae

### *Oncorhynchus mykiss* (Walbaum, 1792)

**Common names:** Rainbow trout (FAO, AFS, Kenya, South Africa, Tanzania, Zimbabwe), Reënboogforel (South Africa), Trucha arco iris (FAO), Trucha arcoiris (AFS), Truite arc en ciel (FAO, AFS, Réunion), Truta-arco-iris (Madeira Is).

**Description:** Diagnosis: Body elongate, somewhat compressed especially in larger fish. No nuptial tubercles but minor changes to head, mouth and color occur especially in spawning males. Colouration varies with habitat, size, and sexual condition; stream residents and spawners darker, colours more intense; lake residents lighter, brighter, and more silvery. Caudal fin with 19 rays (Ref. 2196). Differs from *Oncorhynchus gorbusha* by having the following unique characters: anal fin with 6-9½ (usually 8½) branched rays; 115-130 scales in midlateral row; 16-17 gill rakers; breeding males lacking hump; juveniles lacking parr marks; wide pink to red stripe from head to caudal base, except in sea-run form; and juveniles with 5-10 parr marks (Ref. 59043).

Description: Streamlined body with very small scales (Ref. 52193). Head rounded; mouth terminal, extending to hind margin of orbit when closed; jaws with sharp teeth, lower jaws of mature males slightly enlarged and hooked (Ref. 52193). Dorsal fin with 4 unbranched and 10-12 branched rays; anal fin with 3 unbranched and 6-12 branched rays; dorsal fin in midbody; small lobate adipose fin; caudal fin shallowly forked (Ref. 52193, 59043).

**Maximum length:** 122 cm TL male/unsexed (Ref. 96339); common length: 60.0 cm TL male/unsexed (Ref. 5504).

**Colour:** Colouration distinctive, body silvery or light golden with small black spots; dorsal and caudal fins black spotted; adipose fin with black edge and spots; a broad lilac-mauve iridescent band from head to caudal fin (Ref. 52193). Older males tend to darken; juveniles have about 10 broad dark grey vertical bars along the body (Ref. 52193).

**Distribution:** Pacific Slope from Kuskokwim River drainage in Alaska to Otay River drainage in California, USA. Widely introduced and established in Canada and USA, including Arctic, Atlantic, Great Lakes, Mississippi River, and Rio Grande basins, and elsewhere in the world (Ref. 86798). Eastern Pacific: Kamchatkan Peninsula and have been recorded from the Commander Islands east of Kamchatka and sporadically in the Sea of Okhotsk as far south as the mouth of the Amur River along the mainland. The records outside Kamchatka probably represent migrating or straying Kamchatkan steelhead (*penshinensis*) rather than the established native population (Reg. 50080). Several countries report adverse ecological impact after introduction.

**Notes:**

## Schilbeidae

### *Pareutropius longifilis* (Steindachner, 1914)

**Common names:** Dande (Malawi).

**Description:** Diagnosis: two pairs of mandibular barbels; adipose fin small; dorsal fin with only 3-4 soft branched rays; at least 50 branched anal fin rays; 13-15 gill rakers on lower part of anterior branchial arch (Ref. 43912).

Description: 9-10 branched pectoral fin rays; anal with iii-iv unbranched and 49-60 branched soft fin rays, number of anal fin rays rather variable from one population to another; 41-43 non-fused vertebrae; 8-9 branchiostegal rays on one side of head; caudal peduncle deeper than long; nasal barbel reaches at least to midway between eye and opercle and at maximum to posterior border of opercle; maxillary barbel rather long and reaches at least to midway along pectoral spine and at maximum to just before its end; inner mandibular barbel reaches at least to posterior border of eye and at maximum to anterior border of opercle; outer mandibular barbel longest and always reaches to about distal end of pectoral spine; inner side of pectoral spine feebly or extremely feebly serrated, in some specimens irregularities on posterior side of spine hardly recognizable as serrations; head rather broad; band of teeth on palatine continuous or narrowly interrupted in middle; snout reaching slightly beyond lower jaw; caudal fin deeply notched with long and pointed fin lobes (Ref. 43912). A peculiar species with a striking reduction of the dorsal fin; *P. longifilis* is easily distinguished from its congeners by the large number of gill rakers on the anterior gill-arch and by the numerous soft anal fin rays (Ref. 43912).

**Maximum length:** 9.2 cm SL male/unsexed (Ref. 43912).

**Colour:** preserved specimens: head and back brown; dark spot above pectoral fin; dark lateral stripe present along lateral line; short dark horizontal stripe starts at base of pectoral spine and ends at level of origin of anal fin; third dark line extends above base of anal; superior border of upper caudal fin lobe sometimes darkly coloured; anal fin border sometimes grey-brown, other fins generally colourless or faintly pigmented at distal margins (Ref. 43912). Live specimens: silvery-white on flanks, with brown longitudinal lines along lateral line and above base of anal fin; belly white; head and back brown; fins uncoloured (Ref. 43912).

**Distribution:** Ruvu, Rufiji-Great Ruaha and Ruvuma systems in Tanzania, and lakes Chiuta and Chilwa in Mozambique and Malawi (Ref. 43912).

**Notes:**

### *Schilbe intermedius* Rüppell, 1832

**Common names:** Ain (Nigeria), Asan (Nigeria), Butter barbel (South Africa), Butter catfish (Kenya, Rwanda), Butterfish (Cameroon, Tanzania), Dambe (Mozambique), Elangi (Nigeria), Female belly up (Cameroon), Ikokole (Congo Dem Rp), Impiryi (Rwanda), Imputa (Rwanda), Injera (Rwanda), Kakonje (Kenya), Karakogere (Uganda), Katante (Tanzania), Kissengo (Kenya), Likole (Congo Dem Rp), Liole (Congo Dem Rp), Lubango (Namibia, Zambia), Manja (Nigeria), Matanda (Tanzania), Mpawa (Kenya), Nalanga (Nigeria), Nembe (Tanzania), Nzeli (Rwanda), Nzengenzenge (Sudan), Nzere (Uganda), Rawa (Kenya), Saruni (Tanzania), Shilba seefarea (Sudan), Shilbaya (Sudan), Silver barbel (South Africa), Silver butter catfish (Namibia), Silver catfish (Kenya, Namibia, Rwanda, South Africa, Tanzania), Sire (Kenya), Tshihoko (South Africa).

**Description:** Diagnosis: 8-13 gill rakers (exceptionally 7-14, Ref. 43912) on lower limb of first gill arch; 41-66 branched anal-fin rays; eyes positioned laterally (Ref. 43912, 57127, 81643). In the Nile (Ref. 43912) and in West Africa adipose fin usually absent, but specimens with a rudimentary adipose fin occasionally present (Ref. 43912, 57127, 81643). In Central and East Africa populations without as well as with entirely developed adipose fin occur; in several populations both morphotypes are mixed together, the adipose fin being absent or present but sometimes varying in size from a recognizable protrusion low down the back to a fully developed adipose fin; posterior nostrils always closer to each other than are anterior ones; lower jaw reaches beyond snout but hardly remarkable in some specimens, mouth being almost isognath; inner side of pectoral spine feebly serrated; nasal barbel at least reaching to midway between eye and opercle but often reaching beyond this level; small specimens (up to about 15 cm) with typical colour pattern with dark lateral bands along sides and anal fin, this pattern gradually disappearing in larger specimens, the body becoming in general entirely brownish, yellowish and silvery with very few traces of dark lateral bands (Ref. 43912).

Description: anal fin long, extending from vent almost to origin of caudal fin; 4 pairs of short, circum-oral barbels (Ref. 34290). 41-66 branched anal fin rays; 40-49 non-fused vertebrae; 7-14 gill rakers on lower part of anterior arch; 8-11 branchiostegal rays on one side of head; caudal peduncle generally deeper than long but in some cases as long as deep; length of circumoral barbels rather variable and showing negative allometry; nasal barbel reaches at least to midway between eye and opercle (large specimens) but at maximum just beyond anterior border of opercle; maxillary and outer mandibular barbels reach at least to midway between eye and opercle and at maximum to just beyond anterior border of opercle; inner mandibular barbels short and at maximum reach to just beyond posterior eye border; profile of head very variable, in general rather straight from snout to occiput but in many specimens straight only anteriorly, nape ascending very abruptly from occiput to origin of dorsal fin; snout morphology also rather variable: usually broad and round, but can also be more or less rectangular or rather narrow; inner side of pectoral spine and posterior side of dorsal spine feebly serrated (Ref. 43912). Specimen without an adipose fin are very similar to *S. uranoscopus*, which however has more numerous gill rakers on the lower part of the anterior arch (13-16 against 7-14 in *S. intermedius*) and more branched anal fin rays (59-73 against 41-66 in *S. intermedius*); specimens of *S. intermedius* with an adipose fin are very similar to *S. moebiusii* known from some East African coastal basins in Tanzania, but in the latter the nasal barbels are rather short, never reaching beyond the posterior eye border, a pronounced postoccipital hump is present and there is a fairly high number of branched anal fin rays (60-68 against an all over variation of 41-66 in all populations of *S. intermedius*)(Ref. 43912).

**Maximum length:** 50.0 cm SL male/unsexed (Ref. 57127).

**Colour:** live young individuals (to about 150 mm SL) with a peculiar colour pattern: head and back dark brown, with two brownish or blackish bands on sides, one along lateral line, other above anal-fin base (Ref. 43912, 57127, 81643). Two other dark bands above anal fin; dark stripe present along dorsal and ventral lobe of caudal fin (Ref. 43912). This colour pattern disappears with growth: head and back remain dark brown, but the lateral bands fade progressively and the sides become more or less whitish or silvery (Ref. 43912, 57127, 81643). Congo basin specimens sometimes with a somewhat mottled colour pattern (Ref. 43912). Preserved specimens: silvery colour of the body disappears almost completely (Ref. 57127, 81643).

**Distribution:** Senegal, Gambia, Casamance, Corubal, Geba, Little Scarcies, Sassandra, Boubo, Bandama, Agnébi, Mé, Comoé, Tano, Pra, Volta basin, Mono, Sio, Ouémé, Ogun, entire Niger and Chad basins, Cross, Wouri and Sanaga; absent between Little Scarcies and Sassandra; further in the

entire Congo River basin, Malagarasi, Luiche, Cunene, Okavango, entire Zambezi including the Kafue system, Lake Kariba, Nile, Lake Victoria basin, Webi Shebeli, Wando, Tana, Galana, Athi, Wami, Rufiji-Ruaha, Lake Rukwa, lower Sabi-Lundi, Shire below Murchison Falls, Lake Chilwa, Ruvu, Pungwe, Limpopo, Incomati and Pongola (Ref. 43912).

**Notes:**

## Sparidae

### *Acanthopagrus berda* (Forsskål, 1775)

**Common names:** Ambatsindriaka (Madagascar), Ariloha (Madagascar), Bir-birtoy (Somalia), Chesi (Mozambique), Espárido (Mozambique), Goldsilk seabream (FAO), Kungu (Tanzania), Mylio berda (old FAO name), Pagre berda (FAO), Pagre picnic (old FAO name, Djibouti), Perch (South Africa), Picnic seabream (old FAO name, Djibouti), River bream (AFS, South Africa), Riverbream (South Africa, Zimbabwe), Sampeha (Madagascar), Sampia (Madagascar), Sargo (Mozambique), Sargo picnic (FAO, Mozambique), Seabream (Mozambique), Slimjannie (South Africa), Sparide (Mozambique), قجاج بردا (FAO), 灰鳍棘鲷 (FAO).

**Description:** Diagnosis: 3.5 rows between fifth dorsal-fin spine base and lateral line; front edge of dorsal scaly area on head slightly convex, with small scales (fewer than 20) anteriorly; pored lateral-line scales 42-44; second anal-fin spine (2AS) longer than third anal-fin spine (3AS), 2AS/3AS ratio 1.23-1.50 (mean 1.36); strongly curved concavity on ventral edge of first two infraorbitals above rear end of maxilla, particularly obvious in specimens more than 13 cm standard length; scales on preopercle flange absent; anal-fin membrane dark; molariform teeth strongly developed along both jaws, teeth rows strongly curved laterally at rear of lower jaw (Ref. 83673).

Description: Deep bodied with forked caudal fin (Ref. 52193). Incisors 4-6 in upper jaw, 6-8 in lower jaw (Ref. 52193). Dorsal fin with 11-12 spines and 10-13 soft rays; anal fin with 3 spines and 8-9 soft rays (Ref. 52193). Lateral line scales 43-47 (Ref. 52193).

**Maximum length:** 90.0 cm TL male/unsexed (Ref. 3198); common length: 35.0 cm TL male/unsexed (Ref. 5450).

**Colour:** Silvery grey to black, with a black patch behind upper gill cover (Ref. 52193).

**Distribution:** Indian Ocean, South Africa, Mozambique, the Red Sea, Persian Gulf, India, Phuket (Andaman Sea, specimen lost), and Malaysia (Penang Island and Langkawi Island, near Singapore). Western Pacific specimens recorded as *A. berda* refer to *Acanthopagrus pacificus* (Ref. 86288).

#### Notes:

### *Acanthopagrus vagus* (Peters, 1852)

**Common names:** Wandering seabream (South Africa).

**Description:** Diagnosis: 3.5 scale rows between fifth dorsal-fin spine base and lateral line; front edge of dorsal scaly area on head (dorsal view) with a median W-shaped scaleless area and with small scales present just before an oblique temporal row of larger scales; 44-46 pored lateral-line scales; second anal-fin spine (2AS) slightly longer than third anal fin spine (3AS), ratio 2AS/3AS 5 1.15-1.45 (mean 1.25); ventral edge of first two infraorbitals straight in specimens less than 23 cm SL, weakly concave in specimens more than 25 cm standard length; preopercle flange with 0-6 scales, number increasing with growth and is obvious in specimens over 20 cm standard length; black streaks near anal-fin base on interradiial membranes between rays; both jaws with well developed molariform teeth (Ref. 83673).

Description: Body depth 1.9-2.5 times in standard length; head length 2.9-3.3 times in standard length; dorsal head profile straight, inter-orbital area flat; lower edge of preorbital bone and front edge of snout straight (Ref. 58304). Jaws with 4-6 pointed incisors at front, followed by 3-5 rows of

molars (Ref. 58304). Lower gill rakers 9-11 (Ref. 58304). Dorsal fin with 11 spines and 10-12 rays; anal fin with 3 spines and 8 rays, second spine distinctly longer than third spine; pectoral fin with 15 rays (Ref. 58304). Lateral line scales 43-45; inter-orbital area naked (Ref. 58304).

**Maximum length:** 60 cm SL male/unsexed (Ref. 58304).

**Colour:** head, body and most fins silvery white; adults have yellow anal fin with membranes blackish basally, rear edge of operculum blackish; small black spot at upper end of pectoral fin base; fins of live juveniles bluish (Ref. 58304).

**Distribution:** western Indian Ocean from Knysna in South Africa to southern Mozambique (Ref. 83673). Also known from Zambezi River and some other coastal rivers (Ref. 57418, 83673). Possibly present in Madagascar, but this needs confirmation (Ref. 83673).

**Notes:**

## Syngnathidae

### *Hippichthys heptagonus* Bleeker, 1849

**Common names:** Belly pipefish (South Africa), Boepens-pypvis (South Africa).

**Description:** Description: Body: trunk heptagonal; very long tail 4-sided; covered with finely-sculptured plates with fine ridges; knife-like keel on the belly made up of sculptured plates (Ref. 2930). Head conical posteriorly; large elongate snout very narrow with concave plates; operculum with prominent median longitudinal keel; nape with a median crest (Ref. 2930). Dorsal fin only at the first 6 rings of tail; dorsal fin with 23-30 rays; pectoral fin with 13-16 rays; pectoral and caudal fins small (Ref. 2930, 4281).

**Maximum length:** 15.0 cm SL male/unsexed (Ref. 5316).

**Colour:** Preserved colour dusky greenish gray; underside of head whitish; ventral keel and caudal fin blackish (Ref. 2930). Brownish, often without distinctive markings; venter of trunk commonly dusky, shading to near black on median ridge; some with brownish bars; dorsal fin rays without distinct row of brown spots (Ref. 4281).

**Distribution:** Africa, Asia and Oceania: South Africa and Kenya to the Solomon Islands and in some Philippine lakes (Ref. 4281, 5316).

**Notes:**

### *Microphis brachyurus* (Bleeker, 1854)

**Common names:** Kortstert-pypvis (South Africa), Opossum pipefish (AFS, South Africa), Pez pipa culebra (FAO), Short-tail pipefish (FAO, South Africa), Syngnathe à queue courte (FAO), Varzwater-pypvis (South Africa).

**Description:** Description: Dorsal fin with 37-54 rays; anal fin with 4 rays (Ref. 52193). Rings (17-22)+(20-26); anal ring nearer end of caudal fin than head (Ref. 52193).

**Maximum length:** 22.0 cm SL male/unsexed (Ref. 5316).

**Colour:** Yellowish brown (Ref. 52193).

**Distribution:** Asia and Oceania: Sri Lanka, southern India, Nicobar Islands and eastward to Japan and the Society Islands. Records from Puerto Rico and USA need confirmation. Africa: east coast from Kenya south to KwaZulu-Natal area, also Madagascar and Mauritius (Ref. 7248, 52193). Côte d'Ivoire (Ref. 272). Western Atlantic: Atlantic coast of Florida, Bahamas, northern and southern Gulf of Mexico, Antilles, central and south American coasts to Brazil (Ref. 26938).

**Notes:**

### *Microphis fluviatilis* (Peters, 1852)

**Common names:** Freshwater pipefish (Kenya, South Africa, Zimbabwe), Varswater-pypvis (South Africa),

**Description:** Description: Dorsal fin with 60-69 rays; anal fin with 4 rays (Ref. 52193). Rings (18-20)+(21-23); anal ring about midway along length of fish (Ref. 52193). Male brood-pouch abdominal, without protective membranous folds (Ref. 52193).

**Maximum length:** 21.0 cm TL male/unsexed (Ref. 52193).

**Colour:** bluish green to yellowish brown with fine black streaks (Ref. 52193).

**Distribution:** east coast from Sabaki River, Kenya, to Coffee Bay, South Africa (Ref. 4127, 52193); also Madagascar (Ref. 4127, 52193). Reported from Zimbabwe (Ref. 13337).

**Notes:**

*Microphis millepunctatus* (Kaup, 1856)

**Common names:** Opossum pipefish (South Africa), Shorttail pipefish (South Africa).

**Description:** Body rings: trunk 19 to 22; tail 20 to 22 (Ref. 57749).

**Maximum length:** 22.0 cm TL male/unsexed (Ref. 57749).

**Colour:**

**Distribution:** Western Indian Ocean: Kenya to Durban, South Africa and from Madagascar, Mauritius, and Reunion.

**Notes:**

## Terapontidae

### *Terapon jarbua* (Forsskål, 1775)

**Common names:** Antsarabaro (Madagascar), Baraonga jarbúa (old FAO name), Doringvis (South Africa), Drihe sak (Madagascar), Drihy (Madagascar), Geedow (Somalia), Jarbua terapon (FAO, Djibouti), Kourmanoue (Comoros), Kourmaoue (Comoros), Kui (Tanzania), Kurmanwe (Comoros), Ngagu (Kenya, Tanzania), Peau d'âne (Seychelles), Peixe-zebra violão (Mozambique), Sumaha (Comoros), Thornfish (Kenya, South Africa), Tsarabaro (Madagascar), Violon jarbua (FAO, Djibouti), 细鳞鲷 (FAO).

**Description:** Diagnosis: body oblong moderately and laterally compressed, greatest body depth 2.5-3.2 times in standard length; head length 2.3-2.6 times in standard length; lower opercular spine extending well beyond the opercular flap; posttemporal bone exposed and serrate posteriorly; pectoral fin rays 13-14; gill rakers 6-8 +13-16 = 19-24; pored lateral line scales 75-100; horizontal scale rows above lateral line 13-17; caudal fin emarginate (Ref. 48274, 90102).

Description: Dorsal fin with 11-12 spines and 9-11 soft rays; anal fin with 3 spines and 7-10 soft rays; pectoral fin with 13-14 rays (Ref. 4327). Scales on lateral line 69-93 (Ref. 4327).

**Maximum length:** 36.0 cm TL male/unsexed (Ref. 9710); common length: 25.0 cm SL male/unsexed (Ref. 4967).

**Colour:** body silvery white with 3-4 curved dark brown or blackish stripes from the nape to the hind part of the body, the lowermost continuing across the middle of the caudal fin; spinous part of dorsal fin with a blackish blotch dorsally on membranes between third and sixth spines; caudal fin with stripes, the lobes with dark tips (Ref. 4327, 48274, 90102).

**Distribution:** Indo-Pacific: Red Sea and East Africa to Samoa, north to southern Japan, south to the Arafura Sea (Ref. 9819), Australia, and Lord Howe Island.

**Notes:**

## Xenocyprididae

### *Ctenopharyngodon idella* (Valenciennes, 1844)

**Common names:** Carpa china (FAO), Carpa herbívora (AFS), Carpe herbivore (FAO), Chinoise (old FAO name), Graskarp (South Africa), Grass carp (old FAO name, AFS, Kenya, Rwanda, South Africa), White amur (old FAO name), Амур белый (FAO), مبروك الأعشاب، شتوت الأعشاب (FAO), 草鱼 (FAO).

**Description:** Diagnosis: No barbels; snout very short, its length less than or equal to eye diameter; postorbital length more than half head length (Ref. 4967). 18 soft rays for caudal fin (Ref. 40476). Diagnosed from rather similar species *Mylopharyngodon piceus* by having the following characters: body olive to brassy green above, silvery white to yellow below; body cylindrical; pharyngeal teeth laterally compressed, serrated, with a groove along grinding surface, usually in two rows, 2,5-4,2 (Ref. 59043).

Description: Body sub-cylindrical (Ref. 52193). Head pointed; mouth terminal; eyes nearer tip of snout than hind margin of head, lateral in position (Ref. 52193). Dorsal fin with 3 unbranched and 7-8 branched rays; anal fin with 3 unbranched and 8 branched rays; dorsal fin short, midway between tip of snout and end of caudal peduncle, origin slightly in front of pelvic fins (Ref. 52193). Scales in lateral line 37-42; 16 scales around caudal peduncle (Ref. 52193).

**Maximum length:** 150 cm TL male/unsexed (Ref. 30578); common length: 10.7 cm SL male/unsexed (Ref. 35840).

**Colour:** body silvery, head and fins dark grey (Ref. 52193).

**Distribution:** Asia: Eastern China and Russia (Ref. 48) in eastern Siberia, Amur River system (Ref. 1441). Widely transported around the world (Ref. 7248). Persists only in Europe by stocking (Ref. 59043). Introductions often brought with it the parasitic tapeworm *Bothriocephalus opsarichthydis* (synonym of *B. acheilognathi*) (Ref. 12217). Several countries report adverse ecological impact after introduction.

#### Notes:

### *Hypophthalmichthys molitrix* (Valenciennes, 1844)

**Common names:** Carpa plateada (FAO, AFS), Carpe argentée (FAO), Chinese carp (Rwanda), Silver carp (FAO, AFS, Rwanda, South Africa), Silwerkarp (South Africa), Толстолобик белый (FAO), 鲢 (FAO).

**Description:** Diagnosis: Body olivaceous to silvery. Barbels absent. Keels extend from isthmus to anus. Edge of last simple dorsal ray not serrated. Branched anal rays 12-13.5 (Ref. 13274). It differs from *Hypophthalmichthys nobilis* by having sharp scaleless keel from pectoral region to anal origin, 650-820 long, slender gill rakers, head length 24-29% of standard length, and plain pale coloration, greenish grey above, whitish below (Ref. 59043).

Description: Body club-shaped (Ref. 52193). Large head; mouth small, upturned; eyes set low, below the level of the mouth; gill rakers attached to each other to form a sieve; intestine extended (Ref. 52193). Dorsal fin with 3 unbranched and 7 branched rays; anal fin with 3 unbranched and 12 branched rays; pelvic fins in front of origin of dorsal fin (Ref. 52193). Scales minute; 110-115 scales in lateral line (Ref. 52193).

**Maximum length:** 120 cm TL male/unsexed (Ref. 86798); common length: 18.0 cm SL male/unsexed (Ref. 35840).

**Colour:** body olivaceous to silvery (Ref. 40476)

**Distribution:** Asia: Native to most major Pacific drainages of East Asia from Amur to Xi Jiang, China (Ref. 59043) and Hanoi, Vietnam (Ref. 120939). Introduced around the world for aquaculture and control of algal blooms. Several countries report adverse ecological impact after introduction (Ref. 1739). Often confused with *Hypophthalmichthys nobilis* (Ref. 59043).

**Notes:**