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# ANNOTATED CHECKLISTS OF FISHES

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## Family Cyclopteridae Bonaparte 1831

lumpsuckers

By

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Lumpsuckers have a sucking disk composed of modified pelvic fin elements, short gill openings, no normal scales, and no head spines. They differ from their closest relatives the snailfishes (Liparidae) in having fewer vertebrae (23–29 versus 36–86), globose or nearly globose body, two short dorsal fins, and a short anal fin. Most lumpsuckers have spiny tubercles on the head and body. The number, structure, and arrangement of the tubercles are important taxonomic characters. First dorsal fin with 4-8 spines, second dorsal with 8-13 soft rays located opposite an anal fin with 7-13 soft rays. Dorsal and anal fins not confluent with caudal fin, a definite caudal peduncle present. Caudal fin large and slightly rounded. Pectoral fins with 19–29 rays, extending ventrally in front of the pelvic disk. Nostrils tubular, two pairs. Cephalic lateral line canals well developed (occipital absent in some species); pores of operculomandibular canals extended externally as barbel-like tubes in some species. Trunk lateral line canal absent or short; superficial neuromasts, papillate in some species, present. Small, conical teeth on jaws arranged in a few rows or narrow bands. Gill opening entirely above pectoral fin base, except extending a little below upper corner of pectoral base in Cyclopterus. Branchiostegal rays 6. Swim bladder absent. Maximum lengths of 2 cm (less than 1 in) to 61 cm (24 in). Marine; most species benthic on continental shelf and upper slope. A few species are primarily pelagic in deeper waters. Some, maybe all, lumpsuckers spawn in shallow coastal waters, sometimes migrating hundreds of miles. After spawning, males guard the eggs. Diet in benthic environment includes polychaetes, crustaceans, and molluscs. Pelagic diet comprises slow-moving prey, mostly medusae and ctenophores. In what may be partly a defensive reaction, lumpsuckers inflate their bodies by swallowing air or water. Cyclopterus lumpus is the target of substantial fisheries in several western North Atlantic countries, which market the roe as lumpfish caviar. Other species have no commercial value. Distributed in the Arctic Ocean and northern regions of the North Pacific and North Atlantic oceans. Most speciose in the North Pacific.

Much work remains to be done on the taxonomy of the Cyclopteridae. The two most recent revisions of the family (Lindberg and Legeza 1955 [ref. 2785],\* Ueno 1970 [ref. 26199]), although still providing much critical information, are now largely outdated. The authors did not examine the types of most species, and owing to the lack of available material described some species from few specimens. For several years

<sup>\*</sup>Caution is advised when using the English translation of Lindberg and Legeza's (1955) review. Although for the most part accurate, it contains some significant mistakes. For example, in some places Barents Sea was translated to Bering Sea.

we have been studying cyclopterids from a wealth of accumulated museum specimens and freshly caught specimens, including type series, and in Mecklenburg et al. (2002 [ref. 25968]) summarized available descriptive information on the Bering Sea and eastern North Pacific species. The cutoff date for new material incorporated in that publication was November 2001. In this checklist we present a classification reflecting our current thinking on the entire group, as well as new information on geographic distributions and status of types from our research through August 2003. We provisionally treat 6 genera and 28 species as valid. Four species (Cyclopteropsis inarmatus, C. popovi, C. lindbergi, Eumicrotremus phrynoides), or more, may be synonymous with other species. The distinction between Cyclopteropsis and Eumicrotremus is increasingly unclear. Redescription of some genera and species is necessary. Differences in appearance from juvenile to adult, which are not well documented for most species, are perhaps the greatest problem in identifying lumpsuckers. The appearance of inflated and uninflated specimens is so different it has caused confusion in taxonomy. Resolution of the status of several species is particularly problematic because the types have been lost, including specimens that were in the private collection of Prof. V. K. Soldatov in the Moscow College of Fisheries and disappeared sometime after his death in 1941. In addition, characters of potentially important taxonomic significance for Cyclopteridae have not been fully investigated. For example, descriptions of the mechanosensory lateral line system of cyclopterids (Ueno 1970 [ref. 26199], Mandrytsa 2001 [ref. 25636]) conflict and are not based on all genera and species. Some discrepancies may be due to differences in terminology and recent improvements in methods of study. The lateral line system has recently become a focus of vertebrate phylogenetic and functional studies (e.g., Webb 1989 [ref. 26844], 2000 [ref. 26845], Montgomery et al. 1995 [ref. 26843]), with resultant increased level of understanding and definition of characters of possible utility in taxonomy.

Our work supports the existence of species "pairs," with counterparts in the Pacific and Atlantic differing in few characteristics and geographically separate: Eumicrotremus orbis in the Pacific versus E. spinosus in the Atlantic, and E. andriashevi versus E. terraenovae. Possibly the pairs reflect division of unified populations by geological phenomena, such as closing of Bering Strait; the similarity between species of each pair reflects the short span of geological time over which differences could evolve. Similarly, there also appear to be species pairs with one member inhabiting the North Pacific and the other in Arctic seas; for example, Cyclopteropsis brashnikowi in the western North Pacific versus C. mcalpini in the Arctic, and C. bergi versus C. jordani. Evidence for the Pacific—Arctic pairs is not as strong as for the Pacific—Atlantic pairs, and the species in the Pacific—Arctic pairs may not be distinct. There has been no genetic study of relationships within Cyclopteridae.

The earliest use of the name Cyclopteridae is attributed to Bonaparte (1831 [ref. 4978]), who grouped snailfishes, lumpsuckers, and other forms. In a classification of the mailcheeked fishes, Gill (1889 [ref. 1729]) recognized the liparids and cyclopterids as separate families but later authors again treated these groups as subfamilies in Cyclopteridae. Recent authors have classified the two taxa in separate families as sister groups while recognizing the monophyly of the combined entity by erecting a superfamily Cyclopteroidea, the sister group of the Cottoidea (Yabe 1985 [ref. 11522], Imamura and Yabe 2002 [ref. 26810]). We do not recognize subfamilies in Cyclopteridae, notwithstanding that Ueno (1970 [ref. 26199]) classified *Aptocyclus* and *Pelagocyclus* in a subfamily Aptocyclinae separate from the other forms in a subfamily Cyclopterinae. Some of the genera in the family are synonyms of other genera or may need to be redescribed. Maintaining a cyclopterid classification at the subfamily level is not justified at this time.

Several nominal cyclopterid species belong to other cottoid families. *Cyclopterichthys amissus* Vaillant 1888, based on an unpublished sketch of a fish caught at Magellan Strait, may have been a psychrolutid and certainly was not a cyclopterid (Gill 1891:366 [ref. 26641], Stein et al. 1991:370 [ref. 19979]). *Liparoides beauchampi* Lloyd 1909 is a psychrolutid (Stein 1978 [ref. 26640], Nelson 1982:1500 [ref. 5470]), and *Cyclopterus gelatinosus* Pallas 1769 is a liparid (Chernova 1998:762 [ref. 24687]). *Lepus marinus* Steller in Pallas 1814 is an unavailable name published first in the synonymy of *Cyclopterus gelatinosus* Pallas 1769 and not considered available later by authors.

## Genus Aptocyclus De la Pylaie 1835

- Aptocyclus De la Pylaie 1835:528 [ref. 1086]. Type species Cyclogasterus ventricosus Pallas 1769. Type by monotypy.
- Cyclopterichthys Steindachner 1881:192 [ref. 4231]. Type species Cyclopterichthys glaber Steindachner 1881. Type by monotypy.
- *Liparops* Garman 1892:42 [ref. 1537]. Type species *Cyclopterus stelleri* Pallas 1814. Type by monotypy.
- *Elephantichthys* Hubbs & Schultz 1934:21 [ref. 5610]. Type species *Elephantichthys copeianus* Hubbs & Schultz 1934. Type by monotypy.
- Pelagocyclus Lindberg & Legeza 1955:436 [ref. 2785]. Type species Pelagocyclus vitiazi Lindberg & Legeza 1955. Type by original designation (also monotypic).

REMARKS: The genus of the type species *Cyclogasterus ventricosus* Pallas was given in error, and should have been *Cyclopterus*.

#### Aptocyclus ventricosus (Pallas 1769)

- *Cyclopterus ventricosus* Pallas 1769:15, Pl. 2 (figs. 1–3) [ref. 20848] (Kamchatka and America). No types known.
- Cyclopterus stelleri Pallas (ex Steller) 1814:73 [ref. 3351] (Petropavlovsk harbor, Kamchatka, Russia). No types known.
- Cyclopterichthys glaber Steindachner 1881:192 [14 of separate], Pl. 8 [ref. 4231] (Okhotsk Sea). Syntypes: NMW 76729-30 (1, 1), 76820 (1).
- Elephantichthys copeianus Hubbs & Schultz 1934:22, Figs. 1, 2 [ref. 5610] (Uyak Bay, Kodiak I., Alaska, U.S.A.). Holotype: UMMZ 106418.
- *Pelagocyclus vitiazi* Lindberg & Legeza 1955:437, Figs. 24, 25 [ref. 2785] (northeast of Simushir I., Kuril Is., 0–50 m over bottom of 3,000 m). Holotype: ZIN 33759.

DISTRIBUTION: North Pacific: Bering Sea to British Columbia, Pacific coast of Honshu at Sagami Bay, and Japan Sea off South Korea. Pelagic.

REMARKS: Kido and Shinohara (1996 [ref. 22205]) synonymized *Pelagocyclus vitiazi* with *Aptocyclus ventricosus*.

### Genus Cyclopsis Popov 1930

Cyclopsis Popov 1930:74 [ref. 3545]. Type species Cyclopsis tentacularis Popov 1930. Type by monotypy.

REMARKS: Appeared first as a nomen nudum in Soldatov and Popov (1929 [ref. 4163]); then in an available way in Popov (1930 [July]:74 [ref. 3545]) and in Soldatov and Lindberg (1930 [after Sept.]:326 [ref. 4164]).

## Cyclopsis tentacularis Popov 1930

Cyclopsis tentacularis Popov 1930:75 [ref. 3545] (Tauyskaya Bay near Ol'skiy I., Okhotsk Sea, Russia, 108 m). Lectotype: ZIN 22002.

DISTRIBUTION: Western North Pacific: northern Okhotsk Sea.

REMARKS: Popov (1930:75 [ref. 3545]) described *C. tentacularis* from unspecified material evidently comprising several specimens. The specimens described shortly afterward by Soldatov and Lindberg (1930:326–327 [ref. 4164]), although interpreted by authors as belonging to the type series, were additional material. The syntypes and type localities were specified by Popov (1931: 87 [ref. 3543]) in a work that originally was planned to be published in Ann. Zool. Mus. Acad. Sci. USSR in 1929. Based on nontype material, the description by Soldatov and Lindberg (1930) is different from that of Popov (1931). To clarify this situation, we designate herein as lectotype ZIN 22002, 85 mm TL, 71 mm SL, adult female, collected 4 August 1913, Tauyskaya Bay near

Ol'skiy Island, Okhotsk Sea, depth 108 m. Paralectotypes (12): UW 42965 (1) [ex UBC 62-417, ex ZIN 22002]; ZIN 21999–22001 (1, 1, 8); ZIN 52867 (1) [ex ZIN 22002]; near Iony Island, 56°21'N, 138°17.5'E, Okhotsk Sea, 25–31 m and 132 m. The original series of syntypes comprised 14 specimens (Popov 1931) but 1 from ZIN 22002, sent to Canada in exchange, cannot be found.

### Genus Cyclopteropsis Soldatov & Popov 1929

Cyclopteropsis Soldatov & Popov 1929:240 [ref. 4163]. Type species Cyclopteropsis bergi Popov in Soldatov & Popov 1929. Type by original designation.

Cyclopterocottus Popov 1930:74 [ref. 3545]. Type species Eumicrotremus brashnikowi Schmidt 1904. Type by subsequent designation.

REMARKS: Soldatov and Lindberg 1930:324 [ref. 4164] reported that Popov informed them that he considered *Eumicrotremus brashnikowi* Schmidt 1904 to represent a distinct genus, *Cyclocottus*. Soldatov and Lindberg did not treat the genus as valid so it is unavailable, and we are unaware of anyone subsequently making the name available; we have placed the name at the end of this checklist in Unavailable Genus-Group Names.

*Cyclopteropsis* is most completely described in Soldatov (1939:153–156, 165–167 [ref. 15285]). The genus needs to be reviewed and, if found to be defensible as a distinct taxon, redescribed. Such study requires accumulation of additional material.

#### Cyclopteropsis bergi Popov 1929

*Cyclopteropsis bergi* Popov in Soldatov & Popov 1929:240 [ref. 4163] (n. Okhotsk Sea, Russia, 58°57'N, 148°44'E and 57°36'N, 140°34'E). Syntypes: ZIN 22006 and 22007 (3, 1).

DISTRIBUTION: Western North Pacific: northwestern Bering Sea to Okhotsk Sea, to Japan Sea off North Korea and Sado Island.

REMARKS: Soldatov and Popov (1929 [ref. 4163]) did not designate types and type localities for species in their new genus *Cyclopteropsis*. It is evident from the description (in the table) that a series of syntypes was used for *C. bergi. Cyclopteropsis bergi* was also described as new, with additional details and an illustration, in Popov (1931:90, fig. 3 [ref. 3543]). One of the syntypes (ZIN 22007) was also described earlier, by Soldatov and Lindberg (1930:323 [ref. 4164]). The syntypes have features of *C. bergi* (ZIN 22006) and *C. lindbergi* (ZIN 22007), and *C. bergi* may be the senior synonym of *C. lindbergi*.

#### Cyclopteropsis brashnikowi (Schmidt 1904)

Eumicrotremus brashnikowi Schmidt 1904:158, Fig. 10 [ref. 3946] (Shantar Is.: Maliy Shantar I. between Cape Mukhtel and Abrek Bay, nw. Okhotsk Sea, Russia, 105 ft [15 Russian fm]). Holotype (unique): ZIN 12956.

DISTRIBUTION: Western North Pacific: Okhotsk Sea to Pacific Ocean off northern Kuril Islands. Previously known only from the holotype, recently found to be rather common off the northern Kuril Islands.

REMARKS: Occasionally misspelled *braschnikowi*, *brashnikowi*, *brashnicowi*, and *brashnikovi*; because none of the incorrect spellings is in prevailing usage, they are unavailable (Article 33.3.1).

Recently collected adult specimens of *C. brashnikowi* have features of *C. popovi. Cyclopter-opsis brashnikowi* may be the senior synonym of *C. popovi.* 

## Cyclopteropsis inarmatus Mednikov & Prokhorov 1956

*Cyclopteropsis inarmatus* Mednikov & Prokhorov 1956:717, Fig. 1 [ref. 12155] (nw. Bering Sea off Glubokaya Bight and Pavla Bight, 100–150 m). Syntypes: (2, lost).

DISTRIBUTION: Western North Pacific: western Bering Sea from Cape Navarin to Karaginskiy Bay; northeastern Okhotsk Sea off Kamchatka.

REMARKS: Possibly a synonym of Cyclopteropsis bergi.

## Cyclopteropsis jordani Soldatov 1929

*Cyclopteropsis jordani* Soldatov in Soldatov & Popov 1929:240 [ref. 4163] (sw. Kara Sea, Arctic Ocean, 72°40'N, 62°40'E, 95 m). Holotype (unique): lost.

DISTRIBUTION: Arctic and western North Atlantic. Known from two specimens: one from south-western part of Kara Sea, Russia; and one from northern Baffin Island at Admiralty Inlet, Canada.

REMARKS: Soldatov and Popov (1929 [ref. 4163]) did not designate types and type localities for species in their new genus *Cyclopteropsis*. It is evident from the description (in the table) that only one specimen was used for *C. jordani*. The holotype for *C. jordani* was later identified and illustrated by Soldatov (1939:156, fig. 2 [ref. 15285]), but subsequently was lost.

The Baffin Island specimen still exists, as UW 42927 (ex UBC 59-350). This specimen measures 62 mm SL and was received in 1955 by P. J. Ellickson from an Eskimo who found it dead in a seal hole. The right side has been dissected and parts are in a separate vial, but the left side is in good condition. The specimen was examined by T. Ueno in 1959, P. J. Ellickson in 1962, and CWM in 2002; all concur it has the diagnostic features of *C. jordani*. The Baffin Island specimen could serve as neotype if no specimens in better condition are found.

## Cyclopteropsis lindbergi Soldatov 1930

Cyclopteropsis lindbergi Soldatov in Soldatov & Lindberg 1930:318, Fig. 51 [ref. 4164] (Tatar Strait, Japan Sea, Russia, 46°12'45"N, 130°15'00"E, 100 m). Holotype (unique): lost.

Lethotremus fuscopunctatus Oshima 1957:4, Fig. 2 [ref. 12161] (offshore of Niigata, Japan). Holotype: Japan Sea Regional Fish. Lab. Niigata No. 1345.

DISTRIBUTION: Western North Pacific: Bering Sea to southeastern Kamchatka, Okhotsk Sea, and Japan Sea to Korean Peninsula.

REMARKS: Classification in *Eumicrotremus* may be appropriate, or limits of *Cyclopteropsis* may need to be redefined. *Cyclopteropsis lindbergi* may be a synonym of *C. bergi*.

#### Cyclopteropsis mcalpini (Fowler 1914)

*Lethotremus mcalpini* Fowler 1914:360, Fig. 1 [ref. 14152] (Greenland, probably Ulriks Bay). Holotype (unique): PU 2950.

DISTRIBUTION: Arctic Ocean. Known from two specimens from Barents Sea and one off northwestern Greenland

REMARKS: The spelling *macalpini*, evidently introduced by Parr (1926:4 [ref. 26198]), is an incorrect subsequent spelling. It appears to be the prevailing spelling and could be deemed to be correct under Article 33.3.1, but there have been very few workers in Cyclopteridae, especially the Atlantic and Arctic species, and use of the spelling *macalpini* has been through repetition rather than through intention. Indeed, we cannot know if Parr's spelling *macalpini* was intentional, because he did not comment on it. The species was named for Charles W. McAlpin (Fowler 1914:362). In accordance with Article 33.5, which treats cases of doubt, we maintain the spelling *mcalpini*.

#### Cyclopteropsis popovi Soldatov 1929

*Cyclopteropsis popovi* Soldatov in Soldatov & Popov 1929:240 [ref. 4163] (nw. Okhotsk Sea between Okhotsk and Ayan, Russia). Holotype (unique): lost.

DISTRIBUTION: Western North Pacific: Okhotsk Sea to Pacific Ocean off northern Kuril Islands. Previously known only from the holotype, recently found to be rather common off the northern Kuril Islands.

REMARKS: Soldatov and Popov (1929 [ref. 4163]) did not designate types and type localities for species in their new genus *Cyclopteropsis*. It is evident from the description (in the table) that only one specimen was used for *C. popovi*. The holotype for *C. popovi* was later designated and illustrated by Soldatov and Lindberg (1930:322, fig. 52 [ref. 4164]), but subsequently was lost. The holotype of *C. popovi* possibly represents the adult form of *C. brashnikowi*.

### Genus Cyclopterus Linnaeus 1758

- *Cyclopterus* Linnaeus 1758:260 [ref. 2787]. Type species *Cyclopterus lumpus* Linnaeus 1758. Type by Linnaeun tautonymy.
- *Lumpus* Oken (ex Cuvier) 1817:1182a [ref. 3303]. Type species *Cyclopterus lumpus* Linnaeus 1758. Type apparently by subsequent monotypy (also by absolute tautonymy).

## Cyclopterus lumpus Linnaeus 1758

- Cyclopterus lumpus Linnaeus 1758:260 [ref. 2787] (Baltic Sea and North Sea). Syntypes: BMNH 1853.11.12.183 [Gronovius coll.] (1, dry half-skin), Linn. Soc. Lond. 25 (1, dry half-skin), NRM 4502-4 (2, 4, 1).
- Cyclopterus minutus Pallas 1769:12, Pl. 3 (figs. 7-9) [ref. 20848] (Atlantic). No types known.
- Cyclopterus pavoninus Shaw in Shaw & Nodder 1797, Pl. 310 [ref. 4013] (near Bangor, North Wales). No types known.
- Cyclopterus pyramidatus Shaw 1804:390, Pl. 167, bottom [ref. 4015] (Baltic Sea and "Northern Ocean"). No types known.
- Cyclopterus caeruleus Mitchill 1815:480 [ref. 13292] (New York Harbor, New York, U.S.A.). No types known.
- Lumpus vulgaris McMurtrie 1831 [ref. 20247] (Baltic Sea and North Sea). Syntypes: BMNH 1853.11.12.183 [Gronovius coll.] (1, dry half-skin), Linn. Soc. Lond. 25 (1, dry half-skin), NRM 4502-4 (2, 4, 1).
- Cyclopterus coronatus Couch 1838:47 [ref. 18049] (Cornwall, England). No types known.
- Lumpus anglorum DeKay (ex Willughby) 1842:305, Pl. 54 (fig. 175) [ref. 1098] (North Atlantic). No types known.
- *Cyclopterus lumpus* var. *hudsonius* Cox 1920:214, Fig. 1 [ref. 22020] (Fort Churchill, Hudson Bay, Manitoba, Canada). Holotype (unique): NMC 58-26 [ex Victoria Mem. Mus. 58].
- DISTRIBUTION: North Atlantic and Arctic: Novaya Zemlya to Portugal and Bay of Biscay; to Greenland, Hudson Bay, and south to Chesapeake Bay. Pelagic.
- REMARKS: Lumpus vulgaris is an unneeded new name for Cyclopterus lumpus.
- The 1823 date cited by Jordan and Evermann (1898:2097 [ref. 2444]) for *Cyclopterus coronatus* evidently is a mistake. They give a page number 47; the species is described as new on that page in Couch's (1838) "Cornish Fauna" and we found no earlier works by Couch that included a page number 47.

Lumpus anglorum was not intended as an original description but validates Lumpus anglorum of Willughby (pre-Linnaean) and authorship is DeKay based on literature and specimens.

### Genus Eumicrotremus Gill 1862

- *Eumicrotremus* Gill 1862:330 [ref. 1668]. Type species *Cyclopterus spinosus* Fabricius in Müller 1776. Type by original designation.
- *Cyclopteroides* Garman 1892:37 [ref. 1537]. Type species *Cyclopteroides gyrinops* Garman 1892. Type by monotypy.
- *Cyclolumpus* Tanaka 1912:86 [ref. 4323]. Type species *Cyclolumpus asperrimus* Tanaka 1912. Type by monotypy.

#### Eumicrotremus andriashevi Perminov 1936

- *Eumicrotremus orbis* forma *andriashevi* Perminov 1936:118 [ref. 22804] (Bering Sea, 63°05'N, 171°47'W, s. of St. Lawrence I., Alaska, U.S.A., 55–65 m). Lectotype: ZIN 25378.
- DISTRIBUTION: North Pacific and adjacent Arctic: northeastern Chukchi Sea to eastern Bering Sea at least as far south as St. Matthew Island and western Bering Sea to Karaginskiy Bay.
- REMARKS: Appeared first as "Eumicrotremus orbis andriashevi Perminov f. n. [forma nova]," regarded as available from the original publication (Article 45.6.4). It is not clear from Lindberg

and Legeza's (1955 [ref. 2785]) review of this species whether they intended to designate the 48-mm specimen (ZIN 25378) they described from among Perminov's types as the unique name-bearing type. It is important to be more precise in order to remove ambiguity, especially since they reidentified one of Perminov's types (ZIN 25384 [1], Okhotsk Sea, 57°50'N, 156°44'E, 83 m, 19 June 1932, vessel *Plastun*, trawl 75, collected and determined by G. N. Perminov) as *E. schmidti*. We consider Lindberg and Legeza's (1955:409, fig. 11) choice of the 48-mm type (ZIN 25378) for description sufficient to establish the lectotype. Perminov (1936:120) mentioned 2 juveniles, but there were 3 specimens in ZIN 25378 (44, 39, and 30 mm SL) until BAS removed 2 juveniles, as paralectotypes, to ZIN 52862. The correct locality for ZIN 25378 and 52862 is south of St. Lawrence Island, Alaska, with coordinates and depths as given in the synonymy above, collected by K. Panin, 22 July 1933. Other potential paralectotypes, comprising 70 specimens listed by Perminov (1936:120) from the Gulf of Anadyr (64°07'N, 175°57'W, depth 65 m, collected by K. Panin, 1 August 1933), evidently have been lost.

Examination of specimens in USNM and UW collections identified as *E. orbis* and other species revealed several belong to *E. andriashevi*, thus expanding the known limits of range in the Chukchi and Bering seas. Specimens from the Okhotsk Sea and Kuril Islands previously attributed to *E. andriashevi* belong to *E. schmidti* and *E. fedorovi*, respectively. Some of the specimens identified as *E. spinosus* by Garman (1892 [ref. 1537]) and Goode and Bean (1896 [ref. 1848]) and listed in the synonymy of *E. andriashevi* by Lindberg and Legeza (1955:408) are examples of *E. terraenovae*; the others are attributable to *E. spinosus*.

#### Eumicrotremus asperrimus (Tanaka 1912)

*Cyclolumpus asperrimus* Tanaka 1912:86, Pl. 21 (figs. 80–83) [ref. 4323] (Niigata, Echigo Prov., w. coast Honshu, Japan). Holotype (unique): ZUMT (dry, lost).

Eumicrotremus birulai Popov 1928:48 [2 of separate], Figs. 1, 2 [ref. 16123] (off Cape Bellinsgauzena [e. coast Sakhalin], Okhotsk Sea; s. of Cape Sufren [n. Primorye at 47°15′N], Tatar Strait; Amerika Bay [Nakhodka Bay], Japan Sea; Avacha Bay, se. Kamchatka, Pacific Ocean; Russia, 33–49 Russian fm [70–104 m]). Syntypes: ?UBC (1) [ex ZIN 13030]; ZIN 12906 (1), 13030 (2, now 1), 17764 (1), 21669 (2, formerly ZIN 12915), 24250 (1).

DISTRIBUTION: North Pacific: Bering Sea from about 61°N to Pacific Ocean south of Unimak Pass, southern Okhotsk Sea (absent from northern Okhotsk Sea), southern Japan Sea, and Pacific Ocean off Hokkaido.

REMARKS: Lindberg and Legeza (1955 [ref. 2785]) and Ueno (1970 [ref. 26199]) synonymized *E. birulai* and *E. asperrimus* but concluded that the name *asperrimus* was not available because Tanaka's (1912 [ref. 4323]) description was based on a dried, distorted specimen; however, that does not make the name *asperrimus* unavailable.

The type locality "Misaki" for *E. birulai* syntype ZIN 12906 (Popov 1928:48) is a mistake; it refers to the second juvenile in the jar, reidentified by BAS as *Lethotremus awae*. Syntype ZIN 12920 (1) is excluded from the type series, being reidentified as *E. schmidti* by Lindberg and Legeza (1955:406 [ref. 2785]). Specimen ZIN 24250 is also a syntype, as it was illustrated by Popov (1928) in figs. 1 and 2 (Lindberg and Legeza 1955:409).

Examination of specimens from the eastern Bering Sea and in the Pacific south of Unimak Pass in the UW collection identified as *Eumicrotremus* sp. and *E. orbis* revealed several belong to *E. asperrimus*, thereby extending the documented range to those areas. From the description and illustrations provided by Hamada (1982 [ref. 26642]), it is evident that the specimens Hamada attributed to *E. birulai* (= *E. asperrimus*) from the western Gulf of Alaska off the coast of Kodiak Island were *E. phrynoides*.

## Eumicrotremus barbatus (Lindberg & Legeza 1955)

Cyclopteropsis barbatus Lindberg & Legeza 1955:449, Fig. 32 [ref. 2785] (Paramushir I., Kuril Is., 74 m). Holotype (unique): ZIN 34841.

DISTRIBUTION: North Pacific: eastern Aleutian Islands to Kuril Islands and Okhotsk coast of Hokkaido, Japan.

REMARKS: Three specimens were previously recorded in the literature: the holotype from the northern Kuril Islands; one specimen from Igitkin Island, Aleutian Islands; and one from the Okhotsk Sea off northern Hokkaido. A specimen (UW 42943) collected in 1961 south of Unimak Island, Aleutian Islands, is the fourth record; originally identified as *E. phrynoides*, it was reexamined and determined to represent *E. barbatus* by CWM in 2002. Since then, additional specimens have been accessioned to the collection from the Pacific Ocean south of the Islands of Four Mountains (UW 46656 and 46657) and Amlia Island (UW 46663 and 47914).

Further studies are needed to determine if this species should be considered valid in *Eumicrotremus* or *Cyclopteropsis*.

#### Eumicrotremus derjugini Popov 1926

Eumicrotremus derjugini Popov 1926:42, Figs. 4–6 [ref. 21488] (Barents Sea and Kara Sea). Syntypes: ?UMMZ 145778 (1) [ex ZIN 21671]; ZIN 21647–49 (2, 1, 1), 21671 (7, now 6).

Eumicrotremus derjugini ochotonensis Popov 1928:53 [7 of separate] [ref. 16123] (Okhotsk Sea, Russia, 55–59°N, 143–147°E, 77–88 Russian fm [164–187 m]). Syntypes: ?UMMZ 145778 (1) [ex ZIN 21671]; ZIN 17761 (1), 18048 (2), 21671 (7, now 6).

*Eumicrotremus spinosus variabilis* Jensen 1944:53, Fig. 13; Pl. 7 (c, d), Pl. 8 [ref. 13060] (Whale Sound, nw. Greenland, 77°17'N, 69°59'W, 930 m; east Greenland, 72°53'N, 25°W, 68–70 m). Syntypes: ZMUC P8234–41 (8), P8243 (1), P8249 (1).

DISTRIBUTION: Arctic, North Atlantic, North Pacific: Beaufort Sea to Greenland, Spitsbergen, Franz Josef Land, and Norwegian Sea to East Siberian Sea (not recorded from Chukchi Sea); northern Okhotsk Sea.

REMARKS: Specimens in ZIN 21671 are syntypes of *E. derjugini*, as well as of *E. derjugini* ochotonensis (Article 72.6). The following syntypes listed by Popov (1926) are not found in the ZIN collection: Kara Sea, 71°00'N, 69°30'E, 1 specimen; 71°30'N, 30°30'E, 274 m; 70°38'N, 38°05'E, 200 m; 76°13'N, 55°00'E, 106 m (1 juvenile with this label is *E. spinosus*).

Eumicrotremus derjugini ochotonensis appears to be a well-defined subspecies, isolated in the Okhotsk Sea from the Arctic and North Atlantic populations of the species; possibly a distinct species. The spellings ochotensis and okhotensis are incorrect subsequent spellings.

## Eumicrotremus eggvinii Koefoed 1956

Eumicrotremus spinosus eggvinii Koefoed 1956:22, Pl. 3 (figs. B–D) [ref. 12206] (Eggvin Bank, off coast of Jan Mayen, 70°54'N, 12°50'W, ca. 30 m). Holotype (unique): ZMUB 5230.

DISTRIBUTION: North Atlantic and Arctic: Labrador to Barents Sea.

REMARKS: Only the holotype was previously recorded in the literature. The second record is a specimen (USNM 105009) caught in 1925 in Saglek Bay, Labrador, by Captain R. A. Bartlett; incorrectly identified by Hildebrand (1939:10 [ref. 26809]) as *E. derjugini* and determined by CWM in 1998 to represent *E. eggvinii* (reported at American Society of Ichthyologists and Herpetologists annual meeting, State College, Pennsylvania, June 2001). Additional specimens were recently collected from the Barents Sea (Ingvar Byrkjedal, University of Bergen, pers. comm. to CWM, 12 Mar. 2002). Ueno (1970:173 [ref. 26199]) treated this form as a distinct species. It may be valid as a subspecies of *E. spinosus*, as described by Koefoed (1956 [ref. 12206]).

#### Eumicrotremus fedorovi Mandrytsa 1991

*Eumicrotremus fedorovi* Mandrytsa 1991:148, Figs. 1, 2 [ref. 19322] (Kuril Is., Russia, 47°23'N, 152°41'E, 140 m). Holotype: ZIN 48896.

DISTRIBUTION: Western North Pacific: off northern Kuril Islands.

### Eumicrotremus gyrinops (Garman 1892)

Cyclopteroides gyrinops Garman 1892:37, Pl. 11 (figs. 4–9) [ref. 1537] (St. Paul I., Pribilof Is., Alaska, U.S.A.). Holotype (unique): MCZ 16026.

DISTRIBUTION: North Pacific: southeastern Bering Sea. Known with certainty only from the holotype.

REMARKS: Possibly the senior synonym of *Eumicrotremus phrynoides* Gilbert & Burke 1912. The holotype had partially deteriorated and, although now in alcohol, evidently dried out even before Garman described it. Our examination of the specimen, while providing additional information, was not conclusive as to the taxonomic status of this species (Mecklenburg et al. 2002:564 [ref. 25968]). Several specimens in museum collections have been identified as this form, but none exactly matches the holotype or Garman's (1892) description of it; those we have been unable to readily determine as representing other species and that remain enigmatic are closer in appearance to *E. phrynoides*.

#### Eumicrotremus orbis (Günther 1861)

Cyclopterus orbis Günther 1861:158 [ref. 1964] (Esquimault Harbour, Vancouver I., British Columbia, Canada). Holotype (unique): BMNH 1860.11.19.26.

Lethotremus vinolentus Jordan & Starks 1895:827, Pl. 94 [ref. 2522] (Puget Sound, Washington, U.S.A.). Holotype (unique): SU 3131.

*Eumicrotremus togedango* Kuronuma 1943:91 [ref. 13020] (southeast of Suribachi, Paramushir I., Kuril Is., ca. 100 m). Holotype: whereabouts unknown.

DISTRIBUTION: North Pacific: Bering Sea to Puget Sound, Washington, and east coast of Hokkaido, Japan.

REMARKS: Examination of specimens in several museum collections indicates specimens identified as *E. orbis* from the northern Bering Sea, eastern Okhotsk Sea, and the Pacific Ocean off southeastern Kamchatka and the Kuril Islands are *E. andriashevi*, *E. taranetzi*, and other species, so we do not yet have a clear idea of the limits of range of *E. orbis* in those areas.

## Eumicrotremus pacificus Schmidt 1904

Eumicrotremus pacificus Schmidt 1904:154, Pl. 5 (figs. 2a–c) [ref. 3946] (Aniva Bay, Okhotsk Sea, 13–18 Russian fm [28–38 m]). Lectotype: ZIN 12921.

Eumicrotremus pacificus chinensis Lindberg & Legeza 1955:413 [ref. 2785] (30°10'N, 127°26'E, East China Sea, 156 m). Syntypes: UW 42933 (1) [ex UBC 62-405, ex ZIN 25373]; ZIN 25373 (9, now 8).

DISTRIBUTION: Western North Pacific: southern Okhotsk Sea and southern Kuril Islands to Pacific Ocean off Hokkaido, Japan Sea, and East China Sea.

REMARKS: We regard the selection by Lindberg and Legeza (1955:410 [ref. 2785]) of one of Schmidt's Aniva Bay types (ZIN 12921) for description in their review and use of the word "type" as sufficient to establish the lectotype of *E. pacificus*. The caption to fig. 13 does not give a catalog number or identify the pictured specimen as the type, but the specimen length (73 mm) and locality (Aniva Bay) indicate the specimen is the one described in the text. Paralectotypes: ?UBC (1) [ex ZIN 12921]; ZIN 12922–24 (20, 1, 1); ZIN 52863 (3) [ex ZIN 12921].

## Eumicrotremus phrynoides Gilbert & Burke 1912

*Eumicrotremus phrynoides* Gilbert & Burke 1912:69, Fig. 15 [ref. 1634] (Petrel Bank, Bering Sea, Alaska, U.S.A., *Albatross* sta. 4779, 54-56 fm). Holotype (unique): USNM 74378.

DISTRIBUTION: North Pacific: southeastern Bering Sea and central Aleutian Islands to northern Gulf of Alaska.

REMARKS: Examination of the holotypes of *E. gyrinops* and *E. phrynoides*, as well as additional material attributed to these forms, suggests they are identical; if so, the name *gyrinops* has priority.

The description by Ueno (1970:114 [ref. 26199]) of *E. phrynoides* is inaccurate, as it is based on specimens of more than one species.

Examination of a specimen (USNM 53807) collected in 1893 from *Albatross* station 3555, near the Pribilof Islands, and identified as *E. spinosus* reveals the specimen belongs to *E. phrynoides*. This record extends the known range of *E. phrynoides* north into the Bering Sea.

## Eumicrotremus schmidti Lindberg & Legeza 1955

Eumicrotremus schmidti Lindberg & Legeza 1955:406, Fig. 9 [ref. 2785] (Gizhiginskaya Bay, Shelikhov Gulf, Okhotsk Sea, Russia). Lectotype: ZIN 22009.

DISTRIBUTION: Western North Pacific: northern Okhotsk Sea.

REMARKS: In naming this species, Lindberg and Legeza (1955) based their description mainly on one specimen (ZIN 22009) among several in the type series but they did not expressly designate that specimen as the name-bearing type. The specimen measured 65 mm in length and was collected in Penzhinskiy Gulf. Having been informed that ZIN regarded the described specimen to be the holotype, Eschmeyer (1998:1518 [ref. 23416]) "technically" designated it the lectotype. Lindberg and Legeza (1955) provided two figures of *E. schmidti*. Figure 9 depicts the lectotype; the caption indicates it was collected at Gizhiginskaya Bay, formerly considered by Russian cartographers as part of Penzhinskiy Gulf (now named Shelikhov Gulf). Figure 8 depicts a paralectotype, a 28-mm juvenile collected north of Cape Terpeniya. Paralectotypes: 10 adults: UW 42941 (1) [ex UBC 62-404, ex ZIN 22010]; ZIN 12917 (2), 12919 (1), 18024 (1), 22009–10 (1, 3 now 2), 24253 (1), 25384 (1), 33673 (1); 6 juveniles: ZIN 12918 (2), 12920 (3), 12957 (1).

#### Eumicrotremus soldatovi Popov 1930

Eumicrotremus soldatovi Popov 1930:72 [ref. 3545] (Okhotsk Sea, Russia, 57°28'N, 148°00'E, 200 m). Holotype (unique): ZIN 22003.

DISTRIBUTION: Western North Pacific: northern Okhotsk Sea and Pacific Ocean off southeastern Kamchatka; one record from Bering Sea. Pelagic.

REMARKS: Popov (1930) did not designate types, but it is evident from the original description and Soldatov and Lindberg (1930:310 [ref. 4164]) that only one specimen was used. Also described as new, with additional details and an illustration, in Popov (1931:94, fig. 4 [ref. 3543]).

#### Eumicrotremus spinosus (Fabricius 1776)

Cyclopterus spinosus Fabricius in Müller 1776:ix [ref. 17808] (Nepidfarluk, Greenland). No types known.

Lethotremus armouri Fowler 1914:363, Fig. 2 [ref. 14152] (Upernavik, Greenland, 8–10 fm). Holotype: PU 2951.

DISTRIBUTION: Arctic and North Atlantic: Barents Sea to Franz Josef Land, Spitsbergen, Greenland, and south along North American coast to Massachusetts.

REMARKS: Authorship is sometimes given as Müller 1776, but the description evidently is taken from Fabricius (Jensen 1944:48–49 [ref. 13060]). Authors give Denmark for the type locality, but Müller (1776) gives Nepidfarluk, Greenland.

#### Eumicrotremus taranetzi Perminov 1936

Eumicrotremus orbis forma taranetzi Perminov 1936:120, Figs. 2a, 2b [ref. 22804] (sw. Bering Sea near Karaginskiy I.; w. North Pacific Ocean at Avacha Bay, se. Kamchatka, Russia, 7 m). Lectotype: ZIN 25380.

DISTRIBUTION: Western North Pacific: southwestern Bering Sea to Kuril Islands, eastern and southern Okhotsk Sea, and northern Japan Sea.

REMARKS: *Eumicrotremus taranetzi* is classified as a valid species from structure and arrangement of tubercles, following Ueno (1970:70 [ref. 26199]) and our examination of type

specimens and additional material in ZIN and UW collections. Some authors continue to classify *E. taranetzi* as a synonym or subspecies of *E. orbis*.

Appeared first as *Eumicrotremus orbis taranetzi* Perminov f. n. [forma nova], regarded as available from the original publication (Article 45.6.4). The mention of "type *E. taranetzi*, after Perminov 1936," specimen size (59 mm SL), and locality (Karaginskiy Island) in the caption to fig. 7 of Lindberg and Legeza (1955:404 [ref. 2785]) along with their mention of this specimen and its catalog number (ZIN 25380) in the text established that specimen as the lectotype of *E. taranetzi*. Perminov (1936:121) included the single specimen ZIN 21825 in the type series. This jar is now empty, with the label: "1 specimen sent to Canada in exchange on 12.03.1960." Paralectotypes: ?UBC (1, probably lost) [ex ZIN 21825]; ZIN 25379 (1).

#### Eumicrotremus tartaricus Lindberg & Legeza 1955

Eumicrotremus orbis tartaricus Lindberg & Legeza 1955:404 [ref. 2785] (Tatar Strait, 20–22 m; Iturup I., s. Kuril Is., 24–28 m; near Cape Rymnik, ne. Sakhalin I., Russia). Syntypes: UW 42937 (1) [ex UBC 62-411, ex ZIN 33671]; ZIN 12916 (1), 24201 (1), 33671 (5, now 4).

DISTRIBUTION: Western North Pacific: southern Okhotsk Sea to Japan Sea at Peter the Great Bay, and Pacific coast of southern Kuril Islands.

REMARKS: Ueno (1970:70 [ref. 26199]) placed *E. tartaricus* in *E. tartanetzi*, despite describing differences in tubercle structure and arrangement. Other authors (e.g., Lindberg and Krasyukova 1987:356 [ref. 15964]) have treated *E. tartaricus* as a valid species. From our examination of the type series we consider the validity of this species questionable. Syntypes UW 42937, ZIN 24201, and ZIN 33671 may be juveniles of *E. tartanetzi*, and ZIN 12916 is very similar to *E. schmidti*.

## Eumicrotremus terraenovae Myers & Böhlke 1950

Eumicrotremus terraenovae Myers & Böhlke 1950:199, Fig. [ref. 12320] (off Newfoundland, Canada, 46°09'30"N, 49°48'30"W, *Albatross* sta. 2445). Holotype (unique): CAS-SU 9559.

DISTRIBUTION: Western North Atlantic: off Newfoundland and in Gulf of Maine.

REMARKS: The National Museum of Natural History collection contains specimens of *E. terraenovae* not recorded in the literature (USNM 84523, 84614) and some previously recorded by Goode and Bean (1896:273 [ref. 1848]) as *E. spinosus* (e.g., USNM 46010, *Albatross* sta. 2450) (examined by CWM). (The holotype was also recorded by Goode and Bean as *E. spinosus*.) Tubercle development and arrangement in those specimens and the holotype indicate *E. terraenovae* is a distinct species, although included by authors in *E. spinosus* or in *E. andriashevi*.

## Genus Lethotremus Gilbert 1896

*Lethotremus* Gilbert 1896:449 [ref. 1628]. Type species *Lethotremus muticus* Gilbert 1896. Type by monotypy.

#### Lethotremus awae Jordan & Snyder 1902

*Lethotremus awae* Jordan & Snyder 1902:344, Fig. 1 [ref. 2512] (Kominato, Awa, entrance to Tokyo Bay, Japan). Holotype: CAS-SU 6539 (missing, possibly lost).

DISTRIBUTION: Western North Pacific: east coast of central Japan and Yellow Sea near Chefoo, with no records from the intervening area.

REMARKS: CAS-SU 6971 could be the presumed missing holotype, as suggested by notes in the collection database, but the original description contains no features that would allow differentiation of the holotype from all the other types (such as paratype CAS-SU 6970).

#### Lethotremus muticus Gilbert 1896

*Lethotremus muticus* Gilbert 1896:449, Pl. 31 [ref. 1628] (Unimak Pass, Aleutian Is., Alaska, U.S.A., 53°56'00"N, 165°40'00"W, *Albatross* sta. 2844, 54 fm). Lectotype: USNM 53806.

DISTRIBUTION: Eastern North Pacific: eastern Bering Sea and Aleutian Islands to Unimak Pass.

REMARKS: Gilbert (1896) did not designate type specimens by catalog number. The lectotype was established by Jordan and Evermann (1900 [ref.2446]) by their reference to "the type" in the legend on page 3296 for plate 313, figure 758 (Eschmeyer 1998 [ref. 23416]), which is the same illustration that accompanied the original description by Gilbert. Jordan and Evermann gave the locality as *Albatross* station 3223, but the three specimens of *L. muticus* from that station (CAS-SU 3093, USNM 48614, USNM 59376) are not identifiable with the illustration. In 1998 CWM discovered the lectotype (USNM 53806) shelved among nontype material. The specimen has a metal tag stamped "DRN" (drawn). The jar label and the ledger indicate it was collected in 1888 from station 2844 (Mecklenburg et al. 2002 [ref. 25968]). Evidently Gilbert (1896) did not list the 1888 collection locality because the work in which he described the species was focused on collections from 1890 and 1891. We recently located an additional paralectotype (CAS-SU 774), also from station 2844; it originally was labeled as a type, but someone later changed the status to nontype. Paralectotypes (4): CAS-SU 774 (1), 3093 (1); USNM 48614 (1), 59376 (1).

## **Summary Lists**

## **Genus-Group Names of Family Cyclopteridae**

*Aptocyclus* De la Pylaie 1835 = *Aptocyclus* De la Pylaie 1835

Cyclolumpus Tanaka 1912 = Eumicrotremus Gill 1862

Cyclopsis Popov 1930 = Cyclopsis Popov 1930

Cyclopterichthys Steindachner 1881 = Aptocyclus De la Pylaie 1835

*Cyclopterocottus* Popov 1930 = *Cyclopteropsis* Soldatov & Popov 1929

Cyclopteroides Garman 1892 = Eumicrotremus Gill 1862

Cyclopteropsis Soldatov & Popov 1929 = Cyclopteropsis Soldatov & Popov 1929

Cyclopterus Linnaeus 1758 = Cyclopterus Linnaeus 1758

Elephantichthys Hubbs & Schultz 1934 = Aptocyclus De la Pylaie 1835

Eumicrotremus Gill 1862 = Eumicrotremus Gill 1862

Lethotremus Gilbert 1896 = Lethotremus Gilbert 1896

*Liparops* Garman 1892 = *Aptocyclus* De la Pylaie 1835

*Lumpus* Oken 1817 = *Cyclopterus* Linnaeus 1758

Pelagocyclus Lindberg & Legeza 1955 = Aptocyclus De la Pylaie 1835

#### **Incertae Sedis Genus-Group Names**

None

## **Unavailable Genus-Group Names**

Cyclocottus Popov in Soldatov & Lindberg 1930:325 [ref. 4164]. Not treated as valid by Soldatov & Lindberg and not validated by later authors. In the synonymy of Cyclopterocottus Popov 1930.

*Liparius* Rafinesque 1815:87 [ref. 3584]. Nomen nudum. A new genus for a species of a previous genus, apparently *Cyclopterus* Linnaeus but not so specified.

*Lumpus* Rafinesque 1815:87 [ref. 3584]. Nomen nudum. A new genus for a species of a previous genus, apparently *Cyclopterus* Linnaeus but not so specified.

*Oncotion* Klein 1777:46 [ref. 4920]. Suppressed. Published in a work that does not conform to the principle of binominal nomenclature. In the synonymy of *Cyclopterus* Linnaeus 1758.

## Species-Group Names of Family Cyclopteridae

andriashevi, Eumicrotremus orbis Perminov 1936 = Eumicrotremus andriashevi Perminov 1936 anglorum, Lumpus DeKay 1842 = Cyclopterus lumpus Linnaeus 1758 armouri, Lethotremus Fowler 1914 = Eumicrotremus spinosus (Fabricius 1776) asperrimus, Cyclolumpus Tanaka 1912 = Eumicrotremus asperrimus (Tanaka 1912)

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awae, Lethotremus Jordan & Snyder 1902 = Lethotremus awae Jordan & Snyder 1902
barbatus, Cyclopteropsis Lindberg & Legeza 1955 = Eumicrotremus barbatus (Lindberg & Legeza 1955)
bergi, Cyclopteropsis Popov 1929 = Cyclopteropsis bergi Popov 1929
birulai, Eumicrotremus Popov 1928 = Eumicrotremus asperrimus (Tanaka 1912)
brashnikowi, Eumicrotremus Schmidt 1904 = Cyclopteropsis brashnikowi (Schmidt 1904)
caeruleus, Cyclopterus Mitchill 1815 = Cyclopterus lumpus Linnaeus 1758
chinensis, Eumicrotremus pacificus Lindberg & Legeza 1955 = Eumicrotremus pacificus Schmidt 1904
copeianus, Elephantichthys Hubbs & Schultz 1934 = Aptocyclus ventricosus (Pallas 1769)
coronatus, Cyclopterus Couch 1838 = Cyclopterus lumpus Linnaeus 1758
derjugini, Eumicrotremus Popov 1926 = Eumicrotremus derjugini Popov 1926
eggvinii, Eumicrotremus spinosus Koefoed 1956 = Eumicrotremus eggvinii Koefoed 1956
fedorovi, Eumicrotremus Mandrytsa 1991 = Eumicrotremus fedorovi Mandrytsa 1991
fuscopunctatus, Lethotremus Oshima 1957 = Cyclopteropsis lindbergi Soldatov 1930
glaber, Cyclopterichthys Steindachner 1881 = Aptocyclus ventricosus (Pallas 1769)
gyrinops, Cyclopteroides Garman 1892 = Eumicrotremus gyrinops (Garman 1892)
hudsonius. Cyclopterus lumpus Cox 1920 = Cyclopterus lumpus Linnaeus 1758
inarmatus, Cyclopteropsis Mednikov & Prokhorov 1956 = Cyclopteropsis inarmatus Mednikov &
    Prokhorov 1956
jordani, Cyclopteropsis Soldatov 1929 = Cyclopteropsis jordani Soldatov 1929
lindbergi, Cyclopteropsis Soldatov 1930 = Cyclopteropsis lindbergi Soldatov 1930
lumpus, Cyclopterus Linnaeus 1758 = Cyclopterus lumpus Linnaeus 1758
mcalpini, Lethotremus Fowler 1914 = Cyclopteropsis mcalpini (Fowler 1914)
minutus, Cyclopterus Pallas 1769 = Cyclopterus lumpus Linnaeus 1758
muticus, Lethotremus Gilbert 1896 = Lethotremus muticus Gilbert 1896
ochotonensis, Eumicrotremus derjugini Popov 1928 = Eumicrotremus derjugini Popov 1926
orbis, Cyclopterus Günther 1861 = Eumicrotremus orbis (Günther 1861)
pacificus, Eumicrotremus Schmidt 1904 = Eumicrotremus pacificus Schmidt 1904
pavoninus, Cyclopterus Shaw 1797 = Cyclopterus lumpus Linnaeus 1758
phrynoides, Eumicrotremus Gilbert & Burke 1912 = Eumicrotremus phrynoides Gilbert & Burke 1912
popovi, Cyclopteropsis Soldatov 1929 = Cyclopteropsis popovi Soldatov 1929
pyramidatus, Cyclopterus Shaw 1804 = Cyclopterus lumpus Linnaeus 1758
schmidti, Eumicrotremus Lindberg & Legeza 1955 = Eumicrotremus schmidti Lindberg & Legeza 1955
soldatovi, Eumicrotremus Popov 1930 = Eumicrotremus soldatovi Popov 1930
spinosus, Cyclopterus Fabricius 1776 = Eumicrotremus spinosus (Fabricius 1776)
stelleri, Cyclopterus Pallas 1814 = Aptocyclus ventricosus (Pallas 1769)
taranetzi, Eumicrotremus orbis Perminov 1936 = Eumicrotremus taranetzi Perminov 1936
tartaricus, Eumicrotremus orbis Lindberg & Legeza 1955 = Eumicrotremus tartaricus Lindberg & Legeza 1955
tentacularis, Cyclopsis Popov 1930 = Cyclopsis tentacularis Popov 1930
terraenovae, Eumicrotremus Myers & Böhlke 1950 = Eumicrotremus terraenovae Myers & Böhlke 1950
togedango, Eumicrotremus Kuronuma 1943 = Eumicrotremus orbis (Günther 1861)
variabilis, Eumicrotremus spinosus Jensen 1944 = Eumicrotremus derjugini Popov 1926
ventricosus, Cyclopterus Pallas 1769 = Aptocyclus ventricosus (Pallas 1769)
vinolentus, Lethotremus Jordan & Starks 1895 = Eumicrotremus orbis (Günther 1861)
vitiazi, Pelagocyclus Lindberg & Legeza 1955 = Aptocyclus ventricosus (Pallas 1769)
vulgaris, Lumpus McMurtrie 1831 = Cyclopterus lumpus Linnaeus 1758
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## **Incertae Sedis Species-Group Names**

None

### **Unavailable Species-Group Names**

- baltica, Cyclopterus lumpus Smitt, 1892:294 [ref. 4146]. Infrasubspecific. Regarded as infrasubspecific or not intended as a new form as such; Baltic Sea.
- pavlencovi, Cyclopteropsis Soldatov, 1930:74 [ref. 3545]. Nomen nudum. Evidently described in an available way as C. lindbergi Soldatov in Soldatov & Lindberg 1930.

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