

Heterenchelyidae 41  
 Hexagrammidae 77  
 Hexagrammoidei 77  
 Himantolophidae 59  
 Hiodontidae 39  
 Hiodontoidea 39  
 Holocentridae 72  
 Holocentrinae 72  
 Holocephali 4  
 Hoplichthyidae 78  
 Hoplichthyoidei 78  
 Horaichthyidae 68  
 Hypoptychidae 98  
  
 Icosteidae 97  
 Icosteoidi 97  
 Idiacanthidae 53  
 Indostomidae 74  
 Icelidae 78  
 Ipnopidae 53  
 Isonidae 69  
 Istiophoridae 100  
  
 Jenysiidae 69  
  
 Kneriidae 48  
 Korsogastridae 72  
 Kraemeriidae 98  
 Kuhliidae 82  
 Kurtidae 100  
 Kurtoidei 98, 100  
 Kyphosidae 90  
  
 Labracoglossidae 83  
 Labridae 93  
 Labroidei 93  
 Lactariidae 84  
 Lampridae 73  
 Lampridiformes 73, 74  
 Lamproidei 73  
 Latimeriidae 107  
 Latrididae 91  
 Leiognathidae 85  
 Lepidosirenidae 107  
 Lepisosteidae 37  
 Lepisosteiformes 37  
 Lepophidiini 64  
 Leptolepididae 37  
 Leptoscopidae 95  
 Limnichthyidae 95  
 Linophrynidae 59  
 Lobotidae 86  
 Lophiidae 57  
 Lophiiformes 57, 58  
 Lophioidei 57  
 Lophotidae 73  
 Lotinae 61  
 Luciocephalidae 102  
 Luciocephaloidei 102  
 Lutjanidae 86  
 Luvariidae 100  
 Lycoperidae 39  
  
 Macristiidae 57  
 Macrocephenchelyidae 44  
 Macrorhamphosidae 74  
 Macrouridae 7, 9, 19, 62

Macrouroidei 62, 63  
 Macrurocyttidae 72  
 Malacosteidae 53  
 Mammalia 3  
 Mastacembelidae 102  
 Mastacembeloidei 102  
 Megalopidae 39  
 Melamphidae 69  
 Melanocetidae 59  
 Melanonidae 62  
 Melanostomiidae 52  
 Melanotaeniidae 69  
 Merlucciinae 61  
 Menidae 85  
 Microdesmidae 100  
 Mirapinnidae 70  
 Molidae 105  
 Monocentrididae 72  
 Monodactylidae 90  
 Moridae 7, 59  
 Moringuidae 41  
 Mormyridae 39  
 Mormyriiformes 39  
 Mugilidae 92  
 Mugiloidei 92, 93  
 Muraenesocidae 41  
 Muraenidae 41  
 Muraenolepididae 59  
 Muraenolepidoidei 59  
 Mullidae 89  
 Myctophidae 19, 55  
 Myctophiformes 55, 56  
 Myripristinae 7, 72  
 Myrocongridae 41  
  
 Nandidae 90  
 Neenchelyidae 41  
 Nemichthyidae 44  
 Nemipteridae 86  
 Neobythitinae 16, 17, 19, 66  
 Neobythitini 66  
 Neoceratiidae 59  
 Neognathi 48  
 Neopterygii 4, 37  
 Neoscopelidae 57  
 Neostethidae 69  
 Neoteleostei 52  
 Nessorhampidae 41  
 Nettastomatidae 41  
 Nettodariidae 44  
 Nomeidae 101  
 Normanichthyidae 78  
 Notacanthidae 41  
 Notograptidae 96  
 Notopteridae 39  
 Notopteroidea 39  
 Notopteroidei 39  
 Notosudidae 53  
 Nototheniidae 96  
 Notothenoidei 96  
  
 Odacidae 93  
 Ogcocephalidae 57  
 Omosudidae 54  
 Oneirodidae 59  
 Ophichthyidae 44  
 Ophidiidae 7, 9, 17, 64, 67

- Ophidiiformes 8, 63, 64  
 Ophidiinae 16, 17, 64  
 Ophidioidei 63  
 Opisthognathidae 94  
 Oplegnathidae 90  
 Oreosomatidae 7, 73  
 Osmeridae 49  
 Osphronemidae 102  
 Ostariophysi 47, 48  
 Osteichthyes 4, 35  
 Osteoglossidae 7, 38  
 Osteoglossiformes 38  
 Osteoglossoidi 38  
 Osteoglossomorpha 38  
 Ostraciidae 105  
 Otophysi 48  
 Owstoniidae 91
- Palaeonisciformes 36  
 Pantodontidae 38  
 Paracanthopterygii 16, 57  
 Paralepididae 7, 53  
 Parazenidae 72  
 Pataecidae 77  
 Pegasidae 79  
 Pegasiformes 79  
 Pempheridae 90  
 Pentacerotidae 90  
 Pentapodidae 86  
 Percidae 83  
 Perciformes 79, 83, 84, 85, 87, 89, 91, 92, 93, 94, 96, 97, 98,  
 100, 101, 102  
 Percoidei 7, 79, 92  
 Percomorpha 69  
 Percophidae 95  
 Percopsidae 57  
 Percopsiformes 57, 58  
 Percopsoidei 57  
 Phallostethidae 69  
 Pholididae 97  
 Photichthyidae 52  
 Photichthyoidae 52  
 Photichthyoidei 8, 52  
 Platycephalidae 78  
 Plecoglossidae 49  
 Plesiopidae 81  
 Pleuronectidae 104  
 Pleuronectiformes 20, 102, 103, 105  
 Pleuronectoidei 102, 104  
 Poeciliidae 69  
 Polymixiidae 70  
 Polymixioidei 70  
 Polynemidae 93  
 Polynemoidei 93  
 Polyodontidae 37  
 Polypteridae 35  
 Polypteriformes 35  
 Pomacentridae 90  
 Pomadasyidae 86  
 Pomatomidae 84  
 Priacanthidae 82  
 Pristigasteridae 46  
 Protacanthopterygii 48  
 Protopteridae 107  
 Protopteriformes 107  
 Psettodidae 102  
 Psettoidi 102
- Pseudochromidae 81  
 Pseudogrammatidae 81  
 Pseudoplesiopidae 81  
 Psychrolutidae 78  
 Pterothrissidae 40  
 Ptilichthyidae 97
- Regalecidae 74  
 Retropinnidae 50  
 Rachycentridae 84  
 Rhabdodermatidae 107  
 Rhinoprenidae 90  
 Rhyacichthyidae 98  
 Rondeletiidae 69
- Saccopharyngidae 44  
 Saccopharyngoidea 44  
 Salangidae 50  
 Salmonidae 48  
 Salmoniformes 48  
 Salmonoidei 48, 49, 106  
 Sarcopterygii 4, 107  
 Scaridae 8, 93  
 Scatophagidae 90  
 Schindleriidae 98  
 Schindleroidi 98  
 Sciaenidae 88  
 Scombresocidae 67  
 Scombridae 7, 100  
 Scombroidei 100, 101  
 Scopelarchidae 55  
 Scopelomorpha 55  
 Scopthalmidae 103  
 Scorpaenidae 75  
 Scorpaeniformes 75, 77  
 Scorpaenoidei 75, 77  
 Scytalinidae 97  
 Searsidae 50  
 Selachii 4  
 Serranidae 7, 81  
 Serrivomeridae 44  
 Siganidae 100  
 Sillaginidae 83  
 Siluriformes 48  
 Simenchclyidae 44  
 Sirembini 66  
 Solenostomidae 75  
 Soleoidei 104  
 Sparidae 9, 88  
 Sparinae 88  
 Sphyaenidae 93  
 Sphyaenoidei 93  
 Steindachneriinae 61  
 Stenopterygii 52  
 Stephanoberycidae 70  
 Stephanoberycoidei 69, 70  
 Sternoptyhidae 52  
 Stichaeidae 97  
 Stomiidae 53  
 Stomiatoidea 52  
 Stomiiformes 52  
 Stromateidae 101  
 Stromateoidei 100  
 Stylephoridae 74  
 Stylephoroidei 74  
 Synancejidae 77  
 Synapobranchidae 44



Synbranchidae 75  
Synbranchiformes 75  
Syngnathidae 75  
Syngnathoidei 75  
Synodontidae 53  
Synodontoidea 53

Teleostei 4, 37, 106  
Tetragonuridae 101  
Tetraodontidae 105  
Tetraodontiformes 105  
Tetraodontoidei 105  
Tetrapoda 3, 4  
Theraponidae 81  
Toxotidae 90  
Trachichthyidae 9, 71  
Trachinidae 95  
Trachinoidei 94, 96  
Trachipteridae 73  
Trachipteroidei 73  
Triacanthidae 105  
Trichiuridae 100  
Trichonotidae 95

Triglidae 77  
Triodontidae 105  
Tripauchenidae 100  
Tripterygiidae 96

Umbridae 50  
Uranoscopidae 95

Veliferidae 73  
Veliferoidei 73  
Vertebrata 4

Xenocephalidae 96  
Xencongriidae 41  
Xiphiidae 100

Zaniolepididae 78  
Zaproridae 97  
Zeidae 72  
Zeiformes 72, 73  
Zoarcidae 62  
Zoarcoidei 62

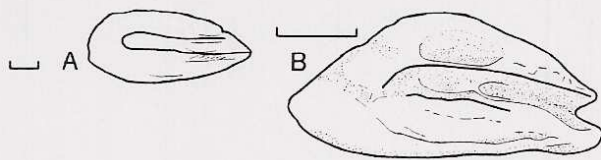


Fig. 73. Left saccular otoliths of Perciformes XIII (Ammodytoidei, Callionymoidei). A, *Hyperoplus lanceolatus* (LE SAUVAGE 1824); Recent; North Sea (Coll. NOLF); B, *Callionymus richardsoni* BLEEKER 1857; Recent; Japan (Coll. NOLF).

#### Suborder Schindlerioidei Gosline 1959

##### Family Schindleriidae GILTAY 1934

No data on Recent otoliths. No otolith-based fossil record.

#### Suborder Ammodytoidei JORDAN & EVERMANN 1896

##### Family Ammodytidae BONAPARTE 1832

Figured Recent example: *Hyperoplus lanceolatus* (LE SAUVAGE 1824) (Fig. 73A).

Otolith-based fossil species:

*Ammodytes vasseuri* NOLF & LAPIERRE 1977. Middle Eocene; Brittany, France.

Recent species known as fossils:

*Ammodytes hexapterus* PALLAS 1814. Pliocene; California, U.S.A. (FITCH 1968).

*Hyperoplus lanceolatus* (LE SAUVAGE 1824). Middle Miocene; Belgium (HUYGHEBAERT & NOLF 1979).

#### Family Hypoptychidae JORDAN 1923

No data on Recent otoliths. No otolith-based fossil record.

#### Suborder Callionymoidei BERG 1937

##### Family Callionymidae BONAPARTE 1832

Figured Recent example: *Callionymus richardsoni* BLEEKER 1857 (Fig. 73B).

Otolith-based fossil species:

*Callionymus lerenardi* NOLF & LAPIERRE 1979. Middle Eocene; Paris Basin.

*Callionymus primus* WEILER 1943. Upper Miocene; Rumania.

*Callionymus schuermanni* SCHWARZHANS 1973. Lower Oligocene; Germany.

#### Suborder Gobioidae JORDAN & EVERMANN 1896

##### Family Gobiidae BONAPARTE 1832

Figured Recent example: *Acentrogobius koumansii* NORMAN 1935 (Fig. 74A).

Gobiid otoliths are very common in nearly all neritic Neogene sediments, often in tremendous quantities. This contrasts strongly with their total absence in Eocene strata. The earliest record of gobiid otoliths is in the Lower Oligocene of the Moulin d'Yrieu, Aquitaine, South West France, where they occur in very large numbers. Various gobiid otoliths are also present in the Middle and Upper Oligocene of Aquitaine, France, while a representative of the subfamily Eleotrinae is known from the Middle

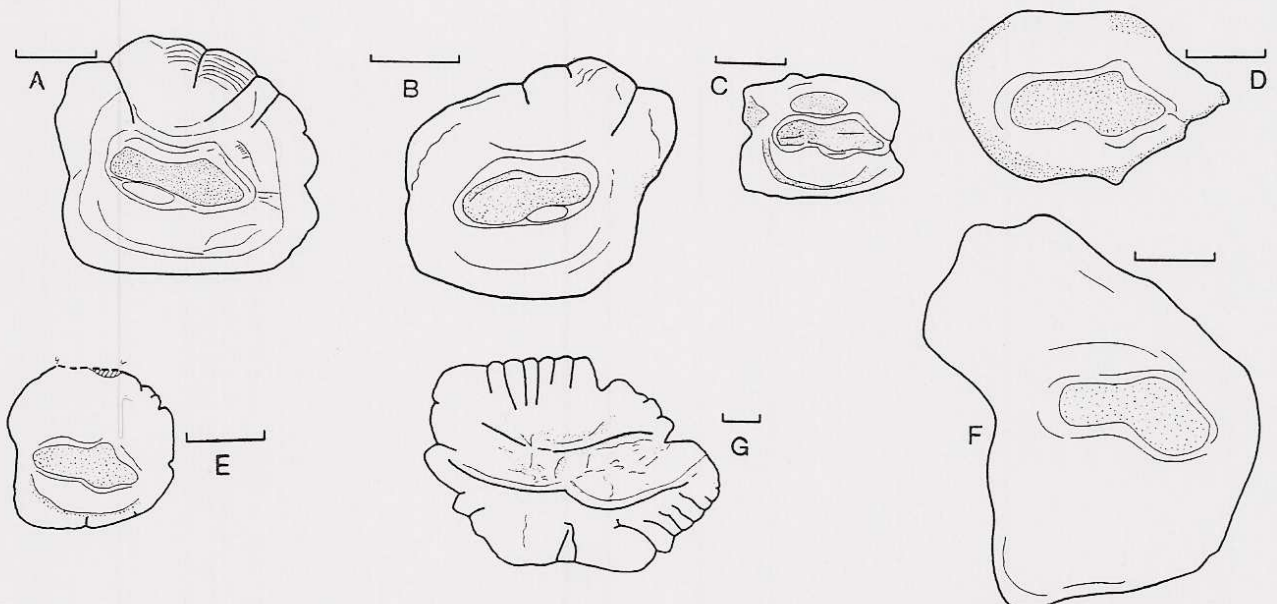


Fig. 74. Left saccular otoliths of Perciformes XIV (Gobioidae, Kurtoidei). A, *Acentrogobius koumansii* NORMAN 1935; Recent; Zaïre, Africa (Coll. NOLF); B, *Gobioides ansorgii* BOULENGER 1903; Pliocene; Catalonia, Spain; C, "genus *Eleotrinarum*" sp.; Middle Oligocene; Aquitaine, France; D, *Taenioides buehanani* (DAY 1837); Recent; Sumatra (Coll. NOLF); E, *Kurtuliveri* (DE CASTELNAEU 1877); Recent; Hongkong (Coll. STINTON); F, *Kurtuliveri* (DE CASTELNAEU 1877); Recent; New Guinea (Coll. NOLF); G, *Kurtuliveri* (DE CASTELNAEU 1877); Recent; New Guinea (Coll. NOLF).



Oligocene of that region (STEURBAUT 1984). Rare gobiid otoliths are also known from the Lower Oligocene of Belgium, but they only become common in the Lower Miocene of that region.

It seems hard to believe that such an abundant speciose, and worldwide family should have a post-Eocene origin. The great abundance of their otoliths in the Lower Oligocene of Moulin d'Yrieu seems to contradict such an idea. It should also be noted that according to ANDREWS, GARDINER, MILES & PATTERSON (1967), *Eocottus veronensis* (VOLTA 1796) (skeletons from the Eocene of Monte Bolca, North Italy) is an eleotrine gobiid.

Numerous fossil otolith-based species of gobiids have been described, but many are based on eroded specimens or atypical juveniles. Several such species have been widely used, and it is not rare to see names of otoliths with types from the Vienna Basin applied to specimens from the North Sea Basin, Aquitaine or Portugal, on the basis of doubtful morphological features. Combined with our very poor knowledge of Recent gobiid otoliths, this results in a chaotic gobiid otolith paleontology. It is our opinion that in the present state of knowledge it is preferable to leave in open nomenclature all species which cannot be identified with Recent species, and to stop introducing new fossil specific names.

Notwithstanding this, fossil species which have been based on perfect types are nominally valid, and in some cases of quasi-identity, the use of such established names may be preferable to open nomenclature (e.g. if a newly collected specimen comes from the same stratum as well established nominal fossil species, or from the immediate surroundings).

Problems concerning specific identification of gobiid otoliths have been discussed in detail by MALZ (1978), who states that identification of otoliths less than 2 mm in length is hazardous, a pertinent conclusion that we approve. As the family includes many species whose otoliths never reach 2 mm, this implies that several species will elude otolith-based reconstructions of gobiid faunas.

The following otolith-based fossil species may be considered as nominally valid, but further investigations of Recent gobiid otoliths may result in synonymy of several of those fossils. This probably will be the case for several of AOKI's Pleistocene species.

- Gobius altus* WEILER 1963. Lower Miocene; Germany.  
*Gobius arenosus* AOKI 1971. Pleistocene; Japan.  
*Gobius capiosus* AOKI 1968. Pleistocene; Japan.  
*Gobius dorsorostralis* WEINFURTER 1954. Upper Miocene; Austria.  
*Gobius francofurtanus* KOKEN 1891. Lower Miocene; Germany.  
\**Gobius guerini* CHAINE & DUVERGIER 1931. Pliocene; North East Spain (Fig. 74B).  
*Gobius ingens* AOKI 1968. Pleistocene; Japan.  
*Gobius longus* VON SALIS 1967. Miocene; Switzerland.  
*Gobiusmoenianus* WEILER 1963. Lower Miocene; Germany.  
*Gobius multipinnatus* (VON MEYER 1851) (skeleton). Middle Miocene; Germany.  
*Gobius notoensis* AOKI 1967. Pleistocene; Japan.  
*Gobius preangerensis* VOSTMAN 1927. Miocene; Java.

- Gobius puellaris* AOKI 1968. Pleistocene; Japan.  
*Gobius rostratus* WEILER 1963. Lower Miocene; Germany.  
*Gobius rusticus* AOKI 1967. Middle Miocene; Japan.  
*Gobius schadi* WEILER 1963. Lower Miocene; Germany.  
*Gobius sectus* STINTON & KISSLING 1968. Lower Miocene; Switzerland.  
*Gobius truncatus* SCHWARZHANS 1979. Pliocene; Italy.  
*Gobius urbanus* AOKI 1968. Pleistocene; Japan.  
*Gobius vicinalis* KOKEN 1891. Miocene; Austria.  
«genus aff. *Pomatoschistus*» *laevis* (WEILER 1942) (*Gobius*). Miocene; Germany.  
«genus *Gobiidarum*» *crenelatus* (WEILER 1943) (*Gobius*). Upper Miocene; Roumania.  
«genus *Gobiidarum*» *dorsoconcauus* GAEMERS & SCHWARZHANS 1973. Pliocene; Belgium.  
«genus *Gobiidarum*» *dorsolobatus* (WEILER 1943) (*Gobius*). Miocene; Roumania.  
«genus *Gobiidarum*» *hemmoorensis* (WEILER 1942) (*Gobius*). Miocene; Germany.  
«genus *Gobiidarum*» *irregularis* (STINTON 1979) (*Gobius*). Miocene; Switzerland.  
«genus *Gobiidarum*» *modestus* GAEMERS & SCHWARZHANS 1973. Pliocene; Belgium.  
«genus *Gobiidarum*» *soldanii* (PIERAGNOLI 1919) (*Ophiidiidarum*). Pliocene; Italy.  
«genus *Gobiidarum*» *talahabensis* VORSTMAN 1927. Miocene; Java.  
«genus *Gobiidarum*» *tankilensis* (VORSTMAN 1927) (*Gobius*). Miocene; Java.  
«genus *Gobiidarum*» *telleri* (SCHUBERT 1906) (*Gobius*). Miocene; Austria.  
«genus *Gobiidarum*» *triangularis* (WEILER 1943) (*Gobius*). Miocene; Roumania.  
«genus *Gobiidarum*» *weileri* BAUZARULLAN 1955. Pliocene; Balears.

Recent species known as fossils:

- Chaeturichthys hexanema* (BLEEKER 1853). Pleistocene; Japan (AOKI 1971: *Gobius rarus*).  
*Coryphopterus nicholsi* (BEAN 1882). Pliocene; California, U.S.A. (FITCH 1967).  
*Gobius* aff. *geniporus* (VALENCIENNES 1837). Lower Miocene; Aquitaine, France (STEURBAUT 1984).  
*Lepidogobius lepidus* (GIRARD 1858). Pleistocene; California, U.S.A. (FITCH 1964).  
*Lethops connectens* HUBBS 1926. Pliocene; California, U.S.A. (FITCH 1964).

#### Family Rhyacichthyidae JORDAN 1923

No data on Recent otoliths. No otolith-based fossil record.

#### Family Kraemeriidae WHITLEY 1935

No data on Recent otoliths. No otolith-based fossil record.

#### Family Gobioididae JORDAN 1923

Figured Recent examples: *Gobioides ansorgii* BOULENGER 1903 (Fig. 74D); *Taenioides buehanani* (DAY 1837) (Fig. 74E). No otolith-based fossil record.



Family *Tripauchenidae* GÜNTHER 1861

Figured Recent example: *Ctenotrypauchen microcephalus* (BLEEKER 1860) (Fig. 74F). No otolith-based fossil record.

Family *Microdesmidae* REGAN 1912

No data on Recent otoliths. No otolith-based fossil record.

Suborder *Kurtoidei* REGAN 1909

Family *Kurtidae* BLEEKER 1859

Figured Recent example: *Kurtus gulliveri* DE CASTELNAU 1877 (Fig. 74G). No otolith-based fossil record.

Suborder *Acanthuroidei* BERG 1937

Family *Acanthuridae* GILL 1872

Figured Recent examples: *Zanclus cornutus* (LINNAEUS 1758) (Fig. 75A); *Acanthurus bahianus* (DE CASTELNAU 1855) (Fig. 75B); *Naso lituratus* (SCHNEIDER 1801) (Fig. 75C). No otolith-based fossil record.

Family *Siganidae* RICHARDSON 1836

Figured Recent example: *Lo vulpinus* (SCHLEGEL & MÜLLER 1844) (Fig. 75D). No otolith-based fossil record.

Suborder *Scombroidei* BLEEKER 1859

Family *Gempylidae* GILL 1862

Figured Recent examples: *Ruwettus pretiosus* COCCO 1829 (Fig. 76A); *Thyrsites atun* (EUPHRASEN 1791) (Fig. 76B). No otolith-based fossil record.

Family *Trichiuridae* RAFINESQUE 1810

Figured Recent example: *Aphanopus carbo* LOWE 1839 (Fig. 76C).

Otolith-based fossil species:

«genus *Trichiuridarum*» *wongratanai* NOLF 1977. Middle Oligocene; Belgium.

Recent species known as fossils:

*Lepidopus caudatus* (EUPHRASEN 1788). Lower Miocene; Aquitaine, France (STEURBAUT 1979).

Family *Scombridae* RAFINESQUE 1815

Figured Recent example: *Scomberomorus maculatus* (MITCHILL 1815) (Fig. 76D).

Otolith-based fossil species:

*Pneumatophorus euodus* NOLF 1973. Middle Eocene; Belgium.

«genus *Scombridarum*» *bisculptatus* SCHWARZHANS 1974. Upper Oligocene; Germany.

Family *Xiphiidae* RAFINESQUE 1810

Figured Recent example: *Xiphias gladius* LINNAEUS 1758 (Fig. 76E). No otolith-based fossil record.

Family *Luvariidae* GILL 1885

Figured Recent example: *Luvarius imperialis* RAFINESQUE 1810 (Fig. 76F). No otolith-based fossil record.

Family *Istiophoridae* JORDAN & EVERMANN 1896

Figured Recent example: *Istiophorus platypterus* (SHAW & NODDER 1792) (Fig. 76G). No otolith-based fossil record.

Suborder *Stromateoidei* REGAN 1929

Family *Centrolophidae* GILL 1861

Figured Recent example: *Centrolophus niger* (GMELIN 1789) (Fig. 76H).

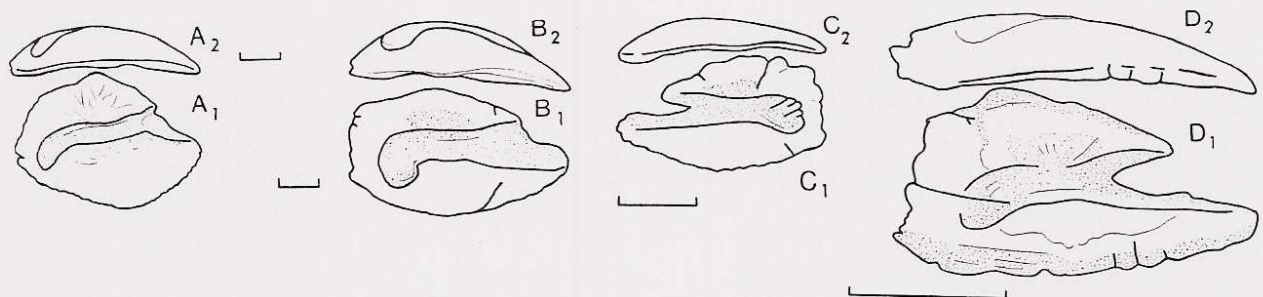


Fig. 75. Saccular otoliths of Perciformes XV (Acanthuroidei). A, *Zanclus cornutus* (LINNAEUS 1758); Recent; Indo-West Pacific (Coll. NOLF); A<sub>1</sub>, inner face; A<sub>2</sub>, ventral view of left otolith; B, *Acanthurus bahianus* DE CASTELNAU 1855; Recent; Haiti (Coll. NOLF); B<sub>1</sub>, inner face; B<sub>2</sub>, ventral view of left otolith; C, *Naso lituratus* (SCHNEIDER 1801); Recent; Pacific (Coll. NOLF); C<sub>1</sub>, inner face; C<sub>2</sub>, ventral view of right otolith; D, *Lo vulpinus* (SCHLEGEL & MÜLLER 1844); Recent; Indo-West Pacific (Coll. NOLF); D<sub>1</sub>, inner face; D<sub>2</sub>, ventral view of left otolith.



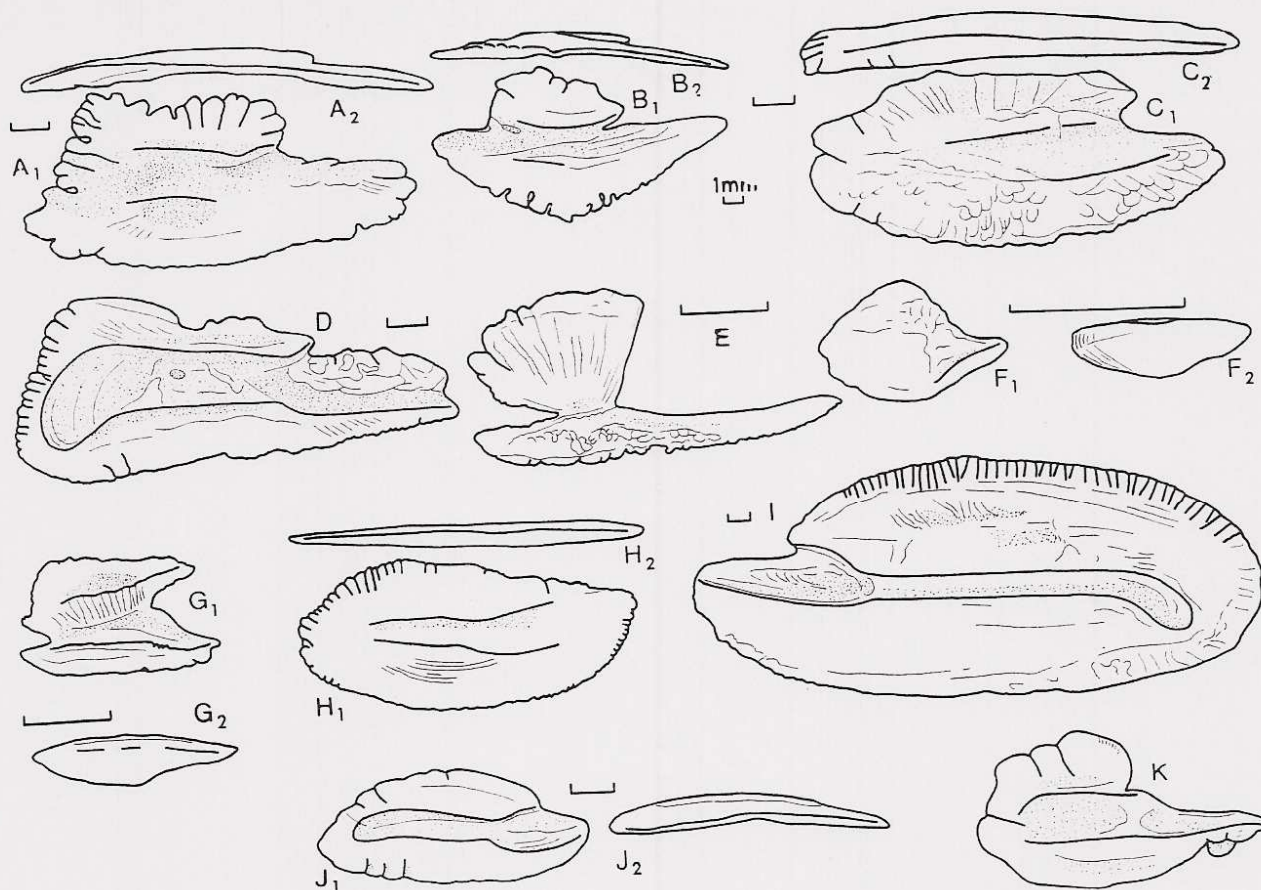


Fig. 76. Saccular otoliths of Perciformes XVI (Scombroidei). A, *Ruvettus pretiosus* COCCO 1829; Recent; Madeira (Coll. NOLF); A<sub>1</sub>, inner face; A<sub>2</sub>, ventral view of left otolith; B, *Thyrsites atun* (EUPHRASEN 1791); Recent; Australia (Coll. NOLF) B<sub>1</sub>, inner face; B<sub>2</sub>, ventral view of left otolith; C, *Aphanopus carbo* LOWE 1839; Recent; Madeira (Coll. NOLF); C<sub>1</sub>, inner face; C<sub>2</sub>, ventral view of left otolith; D, *Scomberomorus maculatus* (MITCHILL 1815); Recent; Florida, U.S.A. (Coll. NOLF); left otolith; E, *Xiphias gladius* LINNAEUS 1758; Recent; California, U.S.A. (Coll. FITCH); left otolith; F, *Luvarius imperialis* RAFINESQUE 1810; Recent; California, U.S.A. (Coll. FITCH); F<sub>1</sub>, inner face; F<sub>2</sub>, ventral view of left otolith; G, *Istioporus platypterus* (SHAW & NODDER 1792); Recent; ? Caribbean (Coll. FITCH); G<sub>1</sub>, inner face; G<sub>2</sub>, ventral view of left otolith; H, *Centrolophus niger* (GMELIN 1879); Recent; North Sea (Coll. NOLF); H<sub>1</sub>, inner face; H<sub>2</sub>, ventral view of left otolith; I, *Hyperoglyphe porosa* (RICHARDSON 1845); Recent; Australia (Coll. NOLF); right otolith; J, *Stromateus fiatola* LINNAEUS 1758; Recent; Gulf of Guinea (Coll. NOLF); J<sub>1</sub>, inner face; J<sub>2</sub>, ventral view of left otolith; K, *Tetragonurus cuvieri* RISSO 1810; Recent; Sicily (Coll. NOLF); left otolith.

#### Otolith-based fossil species:

*Mupus confinis* NOLF 1973. Middle Eocene; Belgium.  
*Mupus neumanni* SCHWARZHANS 1974. Upper Oligocene; Germany.

#### Family Nomeidae GÜNTHER 1860

Figured Recent example: *Hyperoglyphe porosa* (RICHARDSON 1845) (Fig. 76I).

There are no nominal otolith-based species of this family, but an otolith from the Lower Miocene of Aquitaine, South West France, probably belongs to the genus *Ariomma* JORDAN & SNYDER 1904 (STEURBAUT 1984).

#### Family Stromateidae RAFINESQUE 1810

Figured Recent example: *Stromateus fiatola* LINNAEUS 1758 (Fig. 76J).

One fossil species has been tentatively attributed to a stromateid:

*Stromateus brailloni* NOLF 1975. Upper Eocene; Paris Basin.

#### Family Tetragonuridae RISSO 1826

Figured Recent example: *Tetragonurus cuvieri* RISSO 1810 (Fig. 76K). No otolith-based fossil record.

#### Suborder Anabantoidei REGAN 1909

##### Family Anabantidae RICHARDSON 1836

Figured Recent example: *Anabas testudineus* (BLOCH 1795) (Fig. 77A). No otolith-based fossil record.

##### Family Belontiidae LIEM 1963

Figured Recent example: *Belontia hasselti* (CUVIER & VALENCIENNES 1831) (Fig. 77B). No otolith-based fossil record.

##### Family Helostomatidae GILL 1872

Figured Recent example: *Helostoma temminckii* CUVIER 1831 (Fig. 77C). No otolith-based fossil record.



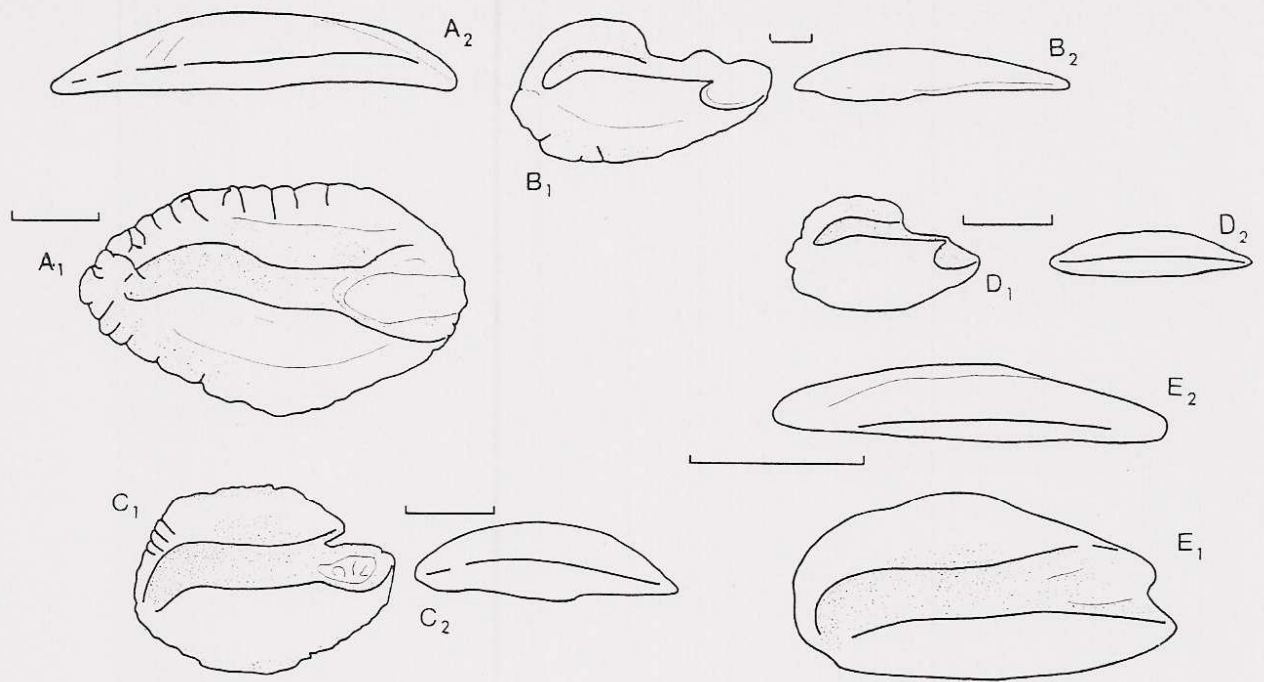


Fig. 77. Left saccular otoliths of Perciformes XVII (Anabantoidei, Mastacembeloidei). A, *Anabas testudineus* (BLOCH 1795); Recent; Celebes (Coll. NOLF); A<sub>1</sub>, inner face; A<sub>2</sub>, ventral view; B, *Belontia hasselti* (CUVIER & VALENCIENNES 1831); Recent; Indonesia (Coll. NOLF); B<sub>1</sub>, inner face; B<sub>2</sub>, ventral view; C, *Helostoma temmincki* CUVIER 1831; Recent; Indonesia (Coll. NOLF); C<sub>1</sub>, inner face; C<sub>2</sub>, ventral view; D, *Colisa lalia* (HAMILTON-BUCHANAN 1822); Recent; North India (Coll. NOLF); D<sub>1</sub>, inner face; D<sub>2</sub>, ventral view; E, *Mastacembelus* sp.; Recent; Thailand (Coll. NOLF); E<sub>1</sub>, inner face; E<sub>2</sub>, ventral view.

#### Family Osphronemidae COPE 1871

Figured Recent example: *Colisa lalia* (HAMILTON-BUCHANAN 1822) (Fig. 77D). No otolith-based fossil record.

#### Suborder Luciocephaloidei BERG 1937

##### Family Luciocephalidae BLEEKER 1859

No data on Recent otoliths. No otolith-based fossil record.

#### Suborder Mastacembeloidei GOODRICH 1909

##### Family Mastacembelidae JORDAN 1923

Figured Recent example: *Mastacembelus* sp. (Fig. 77E). No otolith-based fossil record.

##### Family Chaudhuriidae ANNADALE & HORA 1923

No data on Recent otoliths. No otolith-based fossil record.

#### Perciformes incertae sedis

«genus *Perciformorum*» *contiguus* (STINTON 1978) (*Priodontus*). Middle Eocene; Southern England.

«genus *Perciformorum*» *transitus* (SIEBER & WEINFURTER 1967) (*Percidarum*). Upper Cretaceous; Austria.

«genus *Perciformorum*» *wheeleri* STEURBAUT 1979. Lower Miocene; Aquitaine, France.

#### Order Pleuronectiformes BLEEKER 1859

#### Suborder Psettodoidei REGAN 1910

##### Family Psettodidae REGAN 1910

Figured Recent example: *Psettodes erumei* (BLOCH 1801) (Fig. 78A).

Otolith-based fossil species:

*Psettodes collatus* NOLF 1973. Middle Eocene; Belgium.

*Psettodes oedelemensis* NOLF 1973. Middle Eocene; Belgium.

*Psettodes spinosus* NOLF 1973. Middle Eocene; Paris Basin.

#### Suborder Pleuronectoidei BLEEKER 1859

##### Family Citharidae HUBBS 1945

Figured Recent example: *Citharus macrolepidotus* (BLOCH 1787) (Fig. 78B).

Fossil species of Citharidae have been described, but several are based on very juvenile otoliths. The following species seem to be valid, but new finds may change our opinion on the delimitation of species.

*Citharus belgicus* (GAEMERS 1972) (*Eucitharus*). Middle Oligocene; Belgium.

*Citharus circularis* (STINTON 1966) (*Eucitharus*). Lower Eocene; Southern England.

*Citharus lusitanicus* (JONET 1973) (*Eucitharus*). Middle Miocene; Portugal.



*Citharus miocenicus* (WEILER 1942) (*Eucitharus*). Miocene; Germany.

*Citharus rhenanus* (KOKEN 1891) (*Rhombus*). Middle Oligocene; Germany.

*Citharus schuberti* BASSOLI 1906. Upper Miocene; Italy.

Recent species known as fossils:

*Citharus* aff. *macrolepidotus* (BLOCH 1787). Pliocene; Balears, Spain (BAUZA RULLAN 1955 as *Eucitharus balearicus*).

#### Family Scopthalmidae JORDAN 1923

Figured Recent example: *Scopthalmus maximus* (LINNAEUS 1758) (Fig. 78 C).

Otolith-based fossil species:

*Lepidorhombus angulosus* NOLF 1977. Middle Miocene; Belgium.

*Lepidorhombus subtriangularis* HEINRICH 1970. Upper Oligocene; Germany.

«genus aff. *Phrynorhombus*» *bassolii* SCHUBERT 1906. Miocene; Austria.

Recent species known as fossils:

*Lepidorhombus whiffiagonus* (WALBAUM 1792). Pliocene; Belgium (GAEMERS & SCHWARZHANS 1973).

#### Family Bothidae JORDAN 1923

Figured Recent examples: *Citharichthys sordidus* GIRARD 1854) (Fig. 78 D); *Paralichthys olivaceus* (TEMMINCK & SCHLEGEL 1846) (Fig. 78 E).

Otolith-based fossil species:

*Arnoglossus bauzai* SANZ 1950. Pliocene; Balears, Spain.  
*Arnoglossus extremus* SCHWARZHANS 1980. Upper Eocene; New Zealand.

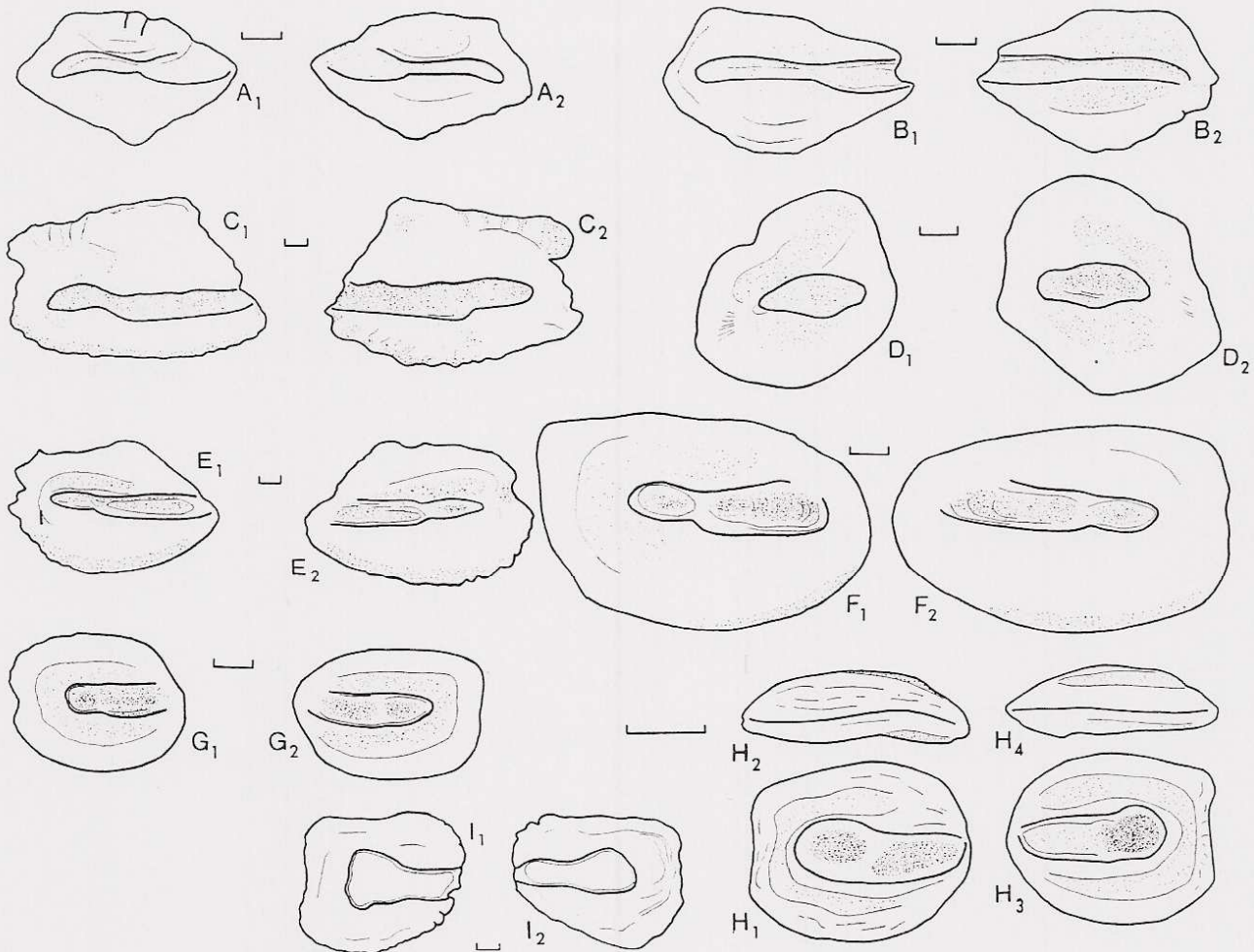


Fig. 78. Left and right saccular otoliths of Pleuronectiformes. A, *Psettodes erumei* (BLOCH 1801); Recent; Townsville, Australia (Coll. NOLF); A<sub>1</sub>, left; A<sub>2</sub>, right otolith; B, *Citharus macrolepidotus* (BLOCH 1787); Recent; Casablanca, Morocco (Coll. NOLF); B<sub>1</sub>, left; B<sub>2</sub>, right otolith; C, *Scopthalmus maximus* (LINNAEUS 1758); Recent; North Sea (Coll. NOLF); C<sub>1</sub>, left; C<sub>2</sub>, right otolith; D, *Citharichthys sordidus* (GIRARD 1854); Recent; California, U.S.A.; D<sub>1</sub>, left; D<sub>2</sub>, right otolith; E, *Paralichthys olivaceus* (TEMMINCK & SCHLEGEL 1846); Recent; China (Coll. NOLF); E<sub>1</sub>, left; E<sub>2</sub>, right otolith; F, *Pleuronectes platessa* LINNAEUS 1758; Recent; North Sea (Coll. NOLF); F<sub>1</sub>, left; F<sub>2</sub>, right otolith; G, *Solea solea* (LINNAEUS 1758); Recent; North Sea (Coll. NOLF); G<sub>1</sub>, left; G<sub>2</sub>, right otolith; H, *Solea rotunda* (PRIEM 1914); Lower Miocene; Aquitaine, France; H<sub>1</sub>, inner face; H<sub>2</sub>, ventral view of left otolith; H<sub>3</sub>, inner face; H<sub>4</sub>, ventral view of right otolith; I, *Cynoglossus semilaevis* GÜNTHER 1873; Recent; Tsingtao, China (Coll. NOLF); I<sub>1</sub>, left; I<sub>2</sub>, right otolith.



- Arnoglossus kokeni* (BASSOLI & SCHUBERT 1906) (*Solea*). Upper Miocene; Italy.
- Arnoglossus longus* SCHWARZHANS 1980. Lower Miocene; New Zealand.
- Arnoglossus miocenicus* WEILER 1962. Miocene; Germany.
- «genus *Bothidarum*» *angustus* (SCHWARZHANS 1979) (*Citharopsettodes*). Pliocene; Italy.
- «genus *Bothidarum*» *biaculeatus* NOLF & LAPIERRE 1979. Middle Eocene; Paris Basin.
- «genus *Bothidarum*» *decepiens* (STINTON 1966) (*Bothus*). Lower Eocene; Southern England.
- «genus *Bothidarum*» *dorsolobatus* SCHWARZHANS 1980. Lower Miocene; New Zealand.
- «genus *Bothidarum*» *rhomboides* SCHWARZHANS 1973. Lower Oligocene; Germany.
- «genus *Bothidarum*» *rosenthalensis* (WEILER 1942). Upper Oligocene; Germany.
- «genus *Bothidarum*» *semen* NOLF 1973. Middle Eocene; Belgium.

Recent species known as fossils:

- Arnoglossus laterna* (WALBAUM 1792). Pliocene; Belgium (NOLF 1978b).
- Citharichthys sordidus* (GIRARD 1854). Pliocene; California, U.S.A. (FITCH 1967).
- Citharichthys stigmaeus* JORDAN & GILBERT 1882. Pliocene; California, U.S.A. (FITCH 1967).
- Citharichthys xanthostigma* GILBERT 1890. Pliocene; California, U.S.A. (FITCH 1968).
- Paralichthys californicus* (AYRES 1859). Pleistocene; California, U.S.A. (FITCH 1964).

#### Family Pleuronectidae RAFINESQUE 1815

Figured Recent example: *Pleuronectes platessa*: LINNAEUS 1758 (Fig. 78F).

Otolith-based fossil species:

- Hippoglossoides splendens* (SCHUBERT 1906) (*Pleuronectidarum*). Miocene; Austria.

Recent species known as fossils:

- Atheresthes stomias* (JORDAN & GILBERT 1880). Pliocene; California, U.S.A. (FITCH 1968).
- Eopsetta jordani* (LOCKINGTON 1879). Pleistocene; California, U.S.A. (FITCH 1968).
- Glyptocephalus zachitus* LOCKINGTON 1879. Pliocene; California, U.S.A. (FITCH 1967).
- Hippoglossoides platessoides* (FABRICIUS 1780). Pliocene; Belgium (GAEMERS & SCHWARZHANS 1973).
- Hippoglossoides stenolepis* SCHMIDT 1904. Pleistocene; California, U.S.A. (FITCH 1970).
- Isopsetta isolepis* (LOCKINGTON 1880). Pleistocene; California, U.S.A. (FITCH 1970).
- Limanda* aff. *ferruginea* (STORER 1839). Pliocene; Belgium (NOLF 1978b).
- Lyopsetta exilis* (JORDAN & GILBERT 1880). Pliocene; California, U.S.A. (FITCH 1970).
- Microstomus pacificus* (LOCKINGTON 1879). Pleistocene; California, U.S.A. (FITCH 1968).

*Parophrys vetulus* GIRARD 1857. Pleistocene; California, U.S.A. (FITCH 1966).

*Platichthys stellatus* (PALLAS 1814). Pleistocene; California, U.S.A. (FITCH 1970).

*Pleuronichthys ritteri* STARKS & MORRIS 1907. Pleistocene; California, U.S.A. (FITCH 1970).

#### Pleuronectoidei incertae sedis

«genus *Pleuronectoideorum*» *spinosus* (SCHWARZHANS 1977) (incertae sedis). Lower Oligocene; Germany.

#### Suborder Soleoidei NORMAN 1931

##### Family Soleidae BONAPARTE 1832

Figured Recent example: *Solea solea* (LINNAEUS 1758) (Fig. 78G).

Soleid otoliths are known from various neritic Tertiary deposits. Like all flatfishes, their otoliths are usually found in small numbers, mostly in very shallow marine deposits.

Otolith-based fossil species:

*Achirus fordycei* SCHWARZHANS 1980. Middle Miocene; New Zealand.

*Dicologlossa subvulgaris* (SCHUBERT 1906) (*Solea*). Miocene; Austria.

*Solea patens* BASSOLI & SCHUBERT 1906. Upper Miocene; Italy.

\**Solea rotunda* (PRIEM 1914). Lower Miocene; Aquitaine, France (Fig. 78H).

*Solea kirchbergana* VON MEYER 1891 (skeleton). Middle Miocene; Germany.

«genus *Soleidarum*» *schultzei* NOLF & LAPIERRE 1979. Upper Eocene; Paris Basin.

Recent species known as fossils:

*Buglossidium luteum* (RISSO 1810). Pliocene; Belgium (GAEMERS & SCHWARZHANS 1973).

*Dicologlossa* aff. *hexophthalma* (BENNETT 1831). Lower Miocene; Aquitaine, France (STEURBAUT 1984).

*Microchirus variegatus* (DONOVAN 1802). Pliocene; Belgium (NOLF 1979).

*Pegusa lascaris* (RISSO 1810). Pliocene; Belgium (GAEMERS & SCHWARZHANS 1973).

*Solea* aff. *senegalensis* KAUP 1858. Lower Miocene; Aquitaine (STEURBAUT 1979).

##### Family Cynoglossidae JORDAN & GOSS 1889

Figured Recent example: *Cynoglossus semilaevis* GÜNTHER 1873 (Fig. 78I).

Otolith-based fossil species:

*Paraplagusia leuchsi* (WEINFURTER 1952) (*Cynoglossus*). Miocene; Austria.

*Paraplagusia roseni* NOLF & CAPPETTA 1980. Lower Miocene; Southern France.



Recent species known as fossils:

*Symphurus atricauda* JORDAN & GILBERT 1880. Pleistocene; California, U.S.A. (FITCH 1966).

### Pleuronectiformes incertae sedis

«genus *Pleuronectiformorum*» *tenuis* (SCHUBERT 1906) (*Solea*). Miocene; Austria.

## Order Tetraodontiformes BERG 1955

### Suborder Balistoidei RAFINESQUE 1810

#### Family Triacanthidae BLEEKER 1859

Figured Recent example: *Triacanthodes ethiops* ALCOCK 1894 (Fig. 79A). No otolith-based fossil record.

#### Family Balistidae RAFINESQUE 1810

Figured Recent examples: *Balistapus undulatus* MUNGO PARK 1797 (Fig. 79B); *Navodon* sp. (Fig. 79C).

Otolith-based fossil species:

*Amanses sulcifer* STINTON 1966. Lower Eocene; Southern England.

#### Family Ostraciidae RAFINESQUE 1844

Figured Recent example: *Ostracion lentiginosum* BLOCH 1801 (Fig. 79D). No otolith-based fossil record.

## Suborder Tetraodontoidei REGAN 1929

### Family Tetraodontidae BONAPARTE 1832

Figured Recent example: *Sphaeroides testudineus* (LINNAEUS 1758) (Fig. 79E). No otolith-based fossil record.

### Family Triodontidae GILL 1872

No data on Recent otoliths. No otolith-based fossil record.

### Family Diodontidae COPE 1872

No data on Recent otoliths. No otolith-based fossil record.

### Family Molidae CLAUS 1882

Figured Recent example: *Mola mola* LINNAEUS 1758 (Fig. 79F). No otolith-based fossil record.

### Acanthopterygii incertae sedis

«genus *Acanthopterygiorum*» *circularis* (STINTON) in STINTON & TORRENS 1968 (*Sphaeronchus*). Bathonian; Southern England.

«genus *Acanthopterygiorum*» *dorsetensis* (STINTON) in STINTON & TORRENS 1968 (*Sphaeronchus*). Bathonian; Southern England.

### Euteleostei incertae sedis

«genus *Euteleosteorum*» *lobatus* (WEILER) in MARTIN & WEILER 1954 (*Beryciformes*). Lower Cretaceous; Germany.

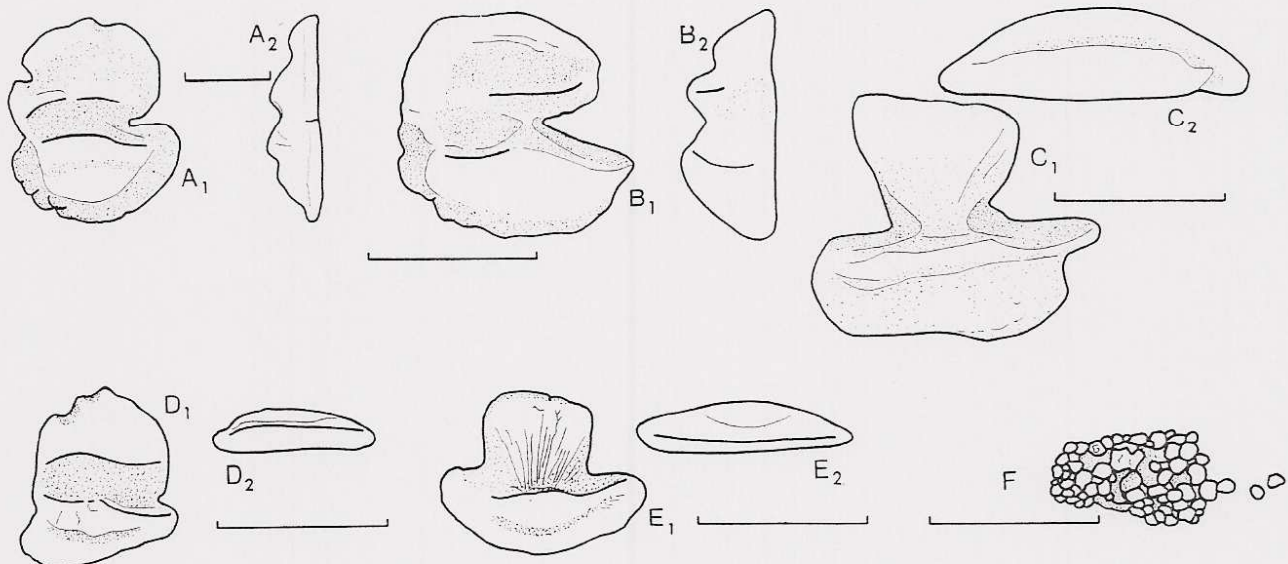


Fig. 79. Left saccular otoliths of Tetraodontiformes. A, *Triacanthodes ethiops* ALCOCK 1894; Recent; Indian Ocean (Coll. NOLF); A<sub>1</sub>, inner face; A<sub>2</sub>, posterior view; B, *Balistapus undulatus* (MUNGO PARK 1797); Recent; Indo-West Pacific (Coll. NOLF); B<sub>1</sub>, inner face; B<sub>2</sub>, posterior view; C, *Navodon* sp.; Recent; New Zealand (Coll. NOLF); C<sub>1</sub>, inner face; C<sub>2</sub>, ventral view; D, *Ostracion lentiginosum* BLOCH 1801; Recent; Indo-West Pacific (Coll. SCHWARZHANS); D<sub>1</sub>, inner face; D<sub>2</sub>, ventral view; E, *Sphaeroides testudineus* (LINNAEUS 1758); Recent; Haiti (Coll. NOLF); E<sub>1</sub>, inner face; E<sub>2</sub>, ventral view; F, *Mola mola* (LINNAEUS 1758); Recent; North Sea (Coll. NOLF).

Teleostei incertae sedis

- «genus *Teleosteorum*» *brevirostris* (WEILER) in MARTIN & WEILER 1965 (*Lycoperidarum*). Transition Lias/Dogger; Germany.
- «genus *Teleosteorum*» *brevis* (WEILER) in MARTIN & WEILER 1965 (*Lycoperidarum*). Lias; Germany.
- «genus *Teleosteorum*» *cognatus* (WEILER) in MARTIN & WEILER 1954 (*Salmonoidei*). Purbeckian; Germany.
- «genus *Teleosteorum*» *densus* (STINTON) in STINTON & TORRENS 1968 (*Leptolepis*). Bathonian; Southern England.
- «genus *Teleosteorum*» *elegans* (WEILER) in MARTIN & WEILER 1965 (*Lycoperidarum*). Toarcian (Lias); Germany.
- «genus *Teleosteorum*» *oncorhynchoides* (WEILER) in MARTIN & WEILER 1954 (*Salmonoidei*). Lower Cretaceous; Germany.
- «genus *Teleosteorum*» *paradoxus* (STINTON) in STINTON & TORRENS 1968 (*Pholidophorus*). Bathonian; Southern England.
- «genus *Teleosteorum*» *pockrandti* (WEILER 1972) (*incertae sedis*). Lower Cretaceous; Germany.
- «genus *Teleosteorum*» *praeelops* (STINTON) in STINTON & TORRENS 1968 (*Pholidophorus*). Bathonian; Southern England.
- «genus *Teleosteorum*» *primus* (WEILER) in MARTIN & WEILER 1954 (*Clupeidarum*). Kimmeridgian; Germany.
- «genus *Teleosteorum*» *roddenensis* (STINTON) in STINTON & TORRENS 1968 (*Leptolepis*). Bathonian; Southern England.
- «genus *Teleosteorum*» *rostratus* (WEILER 1972) (*incertae sedis*). Lower Cretaceous; Germany.

- «genus *Teleosteorum*» *sculptus* (WEILER) in MARTIN & WEILER 1965 (*Lycoperidarum*). Lias; Germany.
- «genus *Teleosteorum*» *similis* (WEILER) in MARTIN & WEILER 1965 (*Lycoperidarum*). Lias; Germany.
- «genus *Teleosteorum*» *superficialis* (WEILER) in MARTIN & WEILER 1954 (*Beryciformes*). Lower Cretaceous; Germany.
- «genus *Teleosteorum*» *tenuirostris* (STINTON) in STINTON & TORRENS 1968 (*Leptolepis*). Bathonian; Southern England.
- «genus *Teleosteorum*» *withersi* FROST 1926. Lower Lias; Southern England.

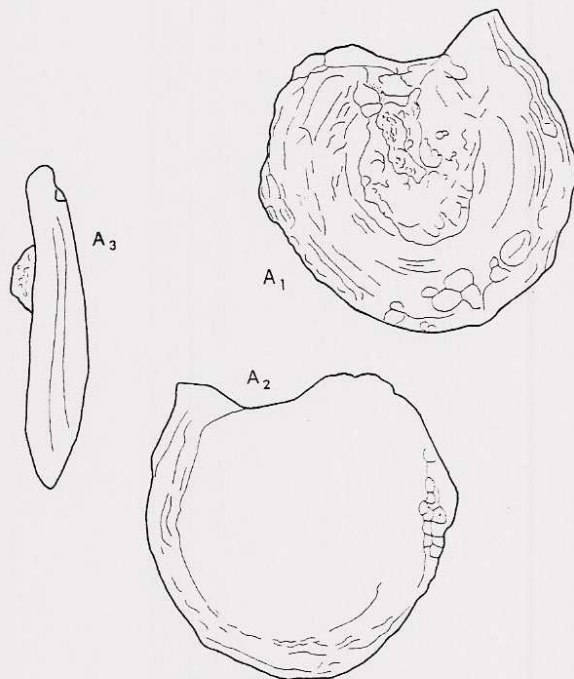


Fig. 80. Saccular otolith of Actinistia. *Latimeria chalumnae* SMITH 1938; Recent; Comore Islands, Indian Ocean (Coll. FITCH); A<sub>1</sub>, inner face; A<sub>2</sub>, external face; A<sub>3</sub>, profile.

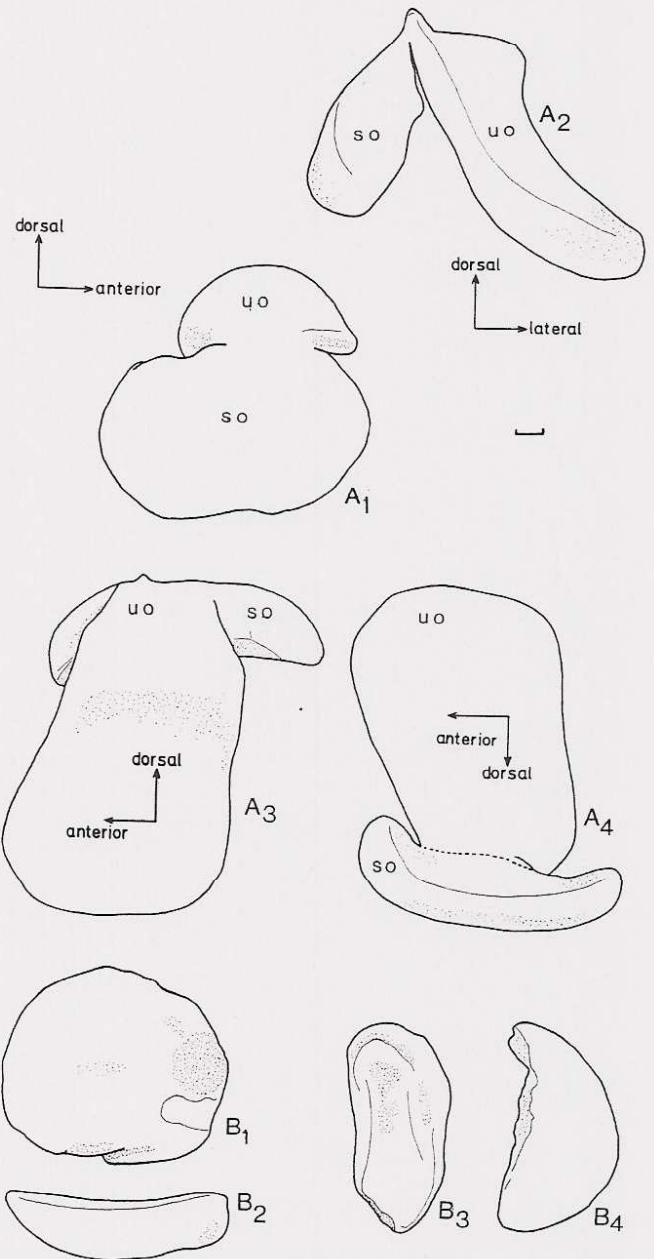


Fig. 81. Otoliths of Dipnoi. A, *Protopterus aethiopicus* HECKEL 1851; Recent; Zaïre, Africa (Coll. NOLF); A<sub>1</sub>, medial view; A<sub>2</sub>, frontal view; A<sub>3</sub>, lateral view; A<sub>4</sub>, ventral view of fused left saccular (sa) and utricular (ut) otolith; B, *Lepidosiren paradoxa* NATTERER 1837; Recent; Amazone, Brazil (Coll. NOLF); B<sub>1</sub>, medial view; B<sub>2</sub>, ventral view of saccular otolith; B<sub>3</sub>, lateral view; B<sub>4</sub>, posterior view of utricular otolith.



## Subclass Sarcopterygii ROMER 1955

### Infraclass Actinistia COPE 1871

#### Family Rhabdodermatidae BERG 1955

I have seen two large well preserved otoliths in situ in a skull of *Rhabdoderma huxleyi* TRAQUAIR 1881 (specimen P4080b in the British Museum (Natural History), London) from the Lower Carboniferous of Scotland. They are of the same type as those of the Recent *Latimeria chalumnae* SMITH 1938 but they are too much hidden in the braincase to allow a detailed study.

#### Family Latimeriidae BERG 1940

Figured Recent example: *Latimeria chalumnae* SMITH 1938 (Fig. 80). No otolith-based fossil record.

## Infraclass Dipnoi MÜLLER 1844

### Order Protopteriformes OWEN 1866

#### Family Protopteridae GILL 1867

Figured Recent example: *Protopterus aethiopicus* HECKEL 1851 (Fig. 81A). No otolith-based fossil record.

#### Family Lepidosirenidae OWEN 1841

Figured Recent example: *Lepidosiren paradoxa* NATTNER 1837 (Fig. 81B). No otolith-based fossil record.

# References and Bibliography

- For numerous references in the text, see the following bibliographies of fossil vertebrates:
- Bibliography of Fossil Vertebrates, by C. L. CAMP and collaborators, published by Geological Society of America as:
- Special Paper 27, 1940
  - Special Paper 42, 1942
  - Memoir 37, 1949
  - Memoir 57, 1953
  - Memoir 84, 1961
  - Memoir 92, 1964
  - Memoir 117, 1968
  - Memoir 134, 1972
  - Memoir 141, 1973
- Bibliography of Fossil Vertebrates by J. T. GREGORY and collaborators, published by the American Geological Institute:
- for the year 1978, 1981
  - for the year 1979, 1981
- Bibliography and Catalogue of the Fossil Vertebrata of North America, by O. P. HAY, U.S. Geol. Survey Bull. 179, 1902.
- Second Bibliography and Catalogue of the Fossil Vertebrata of North America, by O. P. HAY, Carnegie Institution of Washington, Publication No. 390, 1929.
- Bibliography of Fossil Vertebrates exclusive of North America, 1509–1927, by A. S. ROMER et al., Geol. Soc. America, Memoir 87, 1962.
- A nearly complete bibliography of otolith literature is provided by the two following papers, respectively for the period before 1968 and from 1968–1979:
- Otolithi Piscium (Neubearbeitung), by W. WEILER, Fossilium Catalogus, I. Animalia, 117, 1968 A.
- An annotated bibliography of paleontological and systematic papers on fish otoliths, published since 1968, by B. HUYGHEBAERT & D. NOLF, Mededelingen Werkgroep voor Tertiaire en Kwartaire Geologie, 16, (4), pp. 139–170, 1979.
- Important general works on fossil otoliths are:
- BASSOLI, G. (1906 A). Otoliti fossili terziari dell'Emilia. – Riv. Ital. Paleont., 12, p. 36–61.
- BRZOBOHATÝ, R. (1967 A). Die Fisch-Otolithen aus den Pouzdřany-Schichten. – Acta Musei Moraviae, 52, p. 121–168.
- FRIZZELL, D. E. & DANTE, J. (1965). Otoliths of some Early Cenozoic fishes of the Gulf Coast. – J. Paleont., 39, p. 687–718.
- GAEMERS, P. A. M. & VAN HINSBERGH, V. W. M. (1978). Rupelian (Middle Oligocene) fish otoliths from the clay pit «De Vlijt» near Winterswijk, The Netherlands. – Scripta Geol., 46, p. 1–77.
- HEINRICH, W. D. (1969 B). Fischotolithen aus dem Obermiozän von Hohen Woos. – Geologie, 12, Beiheft 67, p. 1–111.
- HUYGHEBAERT, B. & NOLF, D. (1979). Otolithes de Téléostéens et biostratigraphie des Sables de Zonderschot (Miocène Moyen) de la Belgique. – Meded. Werkgroep Tertiaire Kwartaire Geol., 16, No. 2, p. 59–100.
- KOKEN, E. (1884 A). Über Fisch-Otolithen, insbesondere über diejenigen der norddeutschen Oligozän-Ablagerungen. – Z. deutsch. geol. Ges., 36, p. 500–565.
- (1885). Otolithen. – In: KOENEN, A. V.: Über eine palaeozäne Fauna von Kopenhagen. – Abh. kgl. Ges. Wiss. Göttingen, 32, p. 113–116.
- (1888). Neue Untersuchungen an tertiären Fischotolithen. – Z. deutsch. geol. Ges., 40, p. 274–305.
- (1891 A). Neue Untersuchungen an tertiären Fischotolithen, II. – Z. deutsch. geol. Ges., 43, p. 77–170.
- NOLF, D. (1976). Les otolithes des Téléostéens néogènes de Trinidad. – Ecologiae geol. Helv., 69, No. 3, p. 703–742.
- (1977). Les otolithes des Téléostéens de l'Oligo-Miocène belge. – Ann. Soc. roy. Zool. Belg., 106, No. 1, (1976), p. 3–117.
- (1978 a). Les otolithes de Téléostéens des Formations de Landen et de Heers (Paléocène de la Belgique). – Geologica et Paleontologica, 12, p. 223–234.
- (1978 b). Les otolithes des Téléostéens du Plio-Pleistocène belge. – Géobios, 11, No. 4, p. 517–557.
- (1980). Étude monographique des otolithes des Ophidiiformes actuels et révision des espèces fossiles (Pisces, Teleostei). – Meded. Werkgroep Tertiaire Kwartaire Geol. 17, No. 2, p. 71–195.
- (1981). Révision des Types d'Otolithes de Poissons Fossiles décrits par R. SCHUBERT. – Verh. Geol. Bundesanst. Wien, 1981, Heft 2, p. 249–279.
- NOLF, D. & LAPIERRE, H. (1979). Otolithes de poissons nouveaux ou peu connus du Calcaire Grossier et de la Formation d'Auvers (Eocène du Bassin parisien). – Bull. Mus. Nat. Hist. natur. Paris, sect. C, 4e ser., 1, No. 2, p. 79–125.
- SCHUBERT, R. (1902). Die Fischotolithen des österr.-ungar. Tertiärs, I. Die Sciaeniden. – Jb. k.k. geol. Reichsanst. Wien, 51, p. 301–316.
- (1905 A). Die Fischotolithen des österr.-ungar. Tertiärs, II. Macruriden und Beryciden. – Jb. k.k. geol. Reichsanst. Wien, 55, p. 301–306.
- (1906 A). Die Fischotolithen des österr.-ungar. Tertiärs, III. – Jb. k.k. geol. Reichsanst. Wien, 56, p. 623–706.
- SCHWARZHANS, W. (1980). Die Tertiäre Teleosteer-Fauna Neuseelands, rekonstruiert anhand von Otolithen. – Berliner geowiss. Abh. A, 26, p. 1–211.
- SMIGIELSKA, T. (1979). Fish otoliths from the Korytnica Clays (Middle Miocene; Holy Cross Mountains, Central Poland). – Acta Geologica Polonica, 29, No. 3, p. 295–336.
- STEURBAUT, E. (1979). Les otolithes de Téléostéens des Marnes de Saubrigues (Miocène d'Aquitaine meridionale, France). – Palaeontographica, Abt. A, 166, p. 48–91.
- STINTON, F. C. (1966). Fish otoliths from the London Clay. – In: CASIER, E. (1966 A), Faune ichthyologique du London Clay. – Brit. Mus. Natur. Hist., 2 vols., p. 404–464.
- (1975–1980). Fish otoliths from the English Eocene. – Palaeontogr. Soc. Monogr. (1), p. 1–56 (1975); (2), p. 57–126 (1977); (3), p. 127–189 (1978); (4), p. 191–258 (1980).
- SULC, J. (1932). Otolity Paleogénu okoli Biarritz. – Rozpr. Stat. Geol. ust. Českosl. Republ., Praha, 7, p. 1–94.
- WEILER, W. (1942). Die Otolithen des rheinischen und nordwestdeutschen Tertiärs. – Abh. Reichsanst. Bodenforsch., N.F., 206, p. 9–140.
- (1958). Fisch-Otolithen aus dem Ober-Oligozän und dem Mittelmiozän der Niederrheinischen Bucht. – Fortschr. Geol. Rheinland u. Westfalen, 1, p. 323–361.
- (1963). Die Fischfauna des Tertiärs im oberrheinischen Graben, des Mainzer Beckens, des unteren Maintals und der Wetterau, unter besonderer Berücksichtigung des Untermiozäns. – Abh. Senckenberg. naturforsch. Ges., 504, p. 1–69.
- References in the text, not included in the cited bibliographies on fossil vertebrates are:
- ANDREWS, S. M., GARDINER, B. G., MILES, R. S. & PATTERSON, C. (1967). Pisces. – In: Geological Society London: The Fossil Record, p. 637–683.
- BANARESCU, P. & BOSCAIU, N. (1978). Biogeographie. Fauna und Flora der Erde und ihre geschichtliche Entwicklung. – 392 pp., (G. Fischer Verlag), Jena.
- BEST, G. (1975). Feinstratigraphie der Hydrobien-Schichten (Untermiozän, Mainzer Becken). – Mainzer Geowiss. Mitt., 4, p. 75–138.
- BLACKER, R. W. (1974). Recent advances in otolith studies. – In: HARDEN JONES, F. R., (ed.), Sea fisheries research, p. 67–90, (John Wiley and Sons), New York.
- BONDE, N. (1977). Cladistic classification as applied to vertebrates. – In: HECHT, M. K., GOODY, P. C. & HECHT, M. B. (eds.), Major patterns in vertebrate evolution, p. 741–804, (Plenum), New York.



- BOULENGER, G. A. (1904). Fishes. (Systematic account of teleostei). – In: HARMER, S. F. & SHIPLEY, A. E. (eds.), The Cambridge natural history, 7, p. 539–727, (Macmillan & Co. Ltd.), London.
- CHAIINE, J. (1935–1958). Recherches sur les otolithes des Poissons. Étude descriptive et comparative de la sagitta des Téléostéens (suite). – Act. Soc. Linnéenne Bordeaux, 87, p. 5–242 (1935); 88, p. 5–246 (1936); 89, p. 5–252 (1937); 90, p. 5–258 (1938); 92, p. 3–135 (1945); Bull. Centre Étud. Rech. Sci. Biarritz, 1, No. 2, p. 157–275 (1956); 1, No. 4, p. 436–557 (1957), 2, No. 2, p. 149–233 (1958).
- CHAIINE, J. & DUVERGIER, J. (1934). Recherches sur les otolithes des poissons. Étude comparative et descriptive de la sagitta des Téléostéens. – Act. Soc. Linnéenne Bordeaux, 86, p. 5–254.
- COHEN, D. M. (1964). Suborder Argentinioidea. – In: BIGELOW, H. B. (ed. in chief), Fishes of the Western North Atlantic. Mem. Sears Found. Marine Res., 1, (4), p. 1–70, New Haven.
- COHEN, D. M. & NIELSEN, J. G. (1978). Guide to the Identification of Genera of the Fish Order Ophidiiformes With a Tentative Classification of the Order. – Nat. Oceanic and Atmospheric Adm. Techn. Rep., Nat. Marine Fisheries Circ., 417, p. 1–72.
- CORDIER, R. & DALCQ, A. (1954). Organe stato-acoustique. – In: GRASSÉ, P. P. (ed.), Traité de Zoologie, 12, p. 452–521, (Masson & Cie), Paris.
- DEGENS, E. T., DEUSER, W. G. & HAEDRICH, R. L. (1969). Molecular structure and composition of fish otoliths. – Marine Biol., 2 (2), p. 105–113.
- DEVREUX, I. (1967). Temperature Measurements from Oxygen Isotope Ratios of Fish Otoliths. – Science, 155, p. 1684–1685.
- DUPONT, E. (1972). La valeur de la méthode otolithométrique pour la détermination de l'âge du Merlu (*Merluccius merluccius* – Pisces, Gadidae) en Méditerranée. – Bull. Inst. roy. Sci. natur. Belg., 48, Biologie 1, p. 1–15.
- FINK, S. V. & FINK, W. L. (1981). Interrelationships of the Ostariophysan fishes (Teleostei). – Zool. J. Linn. Soc., 72, p. 297–353.
- FITCH, J. E. & LAVENBERG, R. J. (1971). Marine Food and Game Fishes of California. – p. 1–179, (University of California Press), Berkeley, Los Angeles, London.
- GARDINER, B. G. (1984). The relationships of the palaeoniscoid fishes, a review based on new specimens of *Mimia* and *Moythomasia* from the Upper Devonian of Western Australia. – Bull. Brit. Mus. Natur. Hist. (Geol), 37 (4), p. 173–428.
- GAUDANT, J. (1978). Nouvelles observations sur les poissons oligocènes de Monteviale (Vicenza – Italie). – Mem. Sci. geol., Padova, 32, p. 1–9.
- GOODRICH, E. S. (1909A). Vertebrata Craniata (1st. fasc.: Cyclostomes and Fishes). – In: LANKESTER, R. (ed.), A Treatise on Zoology, Pt. 9, XVI + 518 pp., (Adam & Charles Black), London.
- GREENWOOD, P. H. (1977). Notes on the anatomy and classification of elopomorph fishes. – Bull. Brit. Mus. Natur. Hist., Zool. Ser., 32, No. 4, p. 65–102.
- GREENWOOD, P. H. & ROSEN, D. E. (1971). Notes on the Structure and Relationships of the Alepocephaloid Fishes. – Amer. Mus. Novitates, 2473, p. 1–4.
- GREENWOOD, P. H., ROSEN, D. E., WEITZMAN, S. H. & MYERS, G. S. (1966). Phyletic studies of Teleostean Fishes, with a provisional classification of living forms. – Bull. Amer. Mus. Natur. Hist., 131, 4, p. 341–455.
- HEMPEL, G. & TREKEL, H. H. (1959). Zum Wachstum der Otolithen bei Jungheringen. – Helgoländer wiss. Meeresunters., 6, p. 241–259.
- HILDEBRAND, M. (1974). Analysis of Vertebrate Structure. – p. 1–710, (John Wiley & Sons), New York, London, Sydney, Toronto.
- HUREAU, J. C. (1962). Étude descriptive de l'otolithe (sagitta) de quelques Téléostéens antarctiques. – Bull. Soc. Zool. France, 87, No. 5–6, p. 533–546.
- JARVIK, E. (1981). Basic Structure and Evolution of Vertebrates. – 2, XII + 388 pp., (Academic Press), London, New York.
- JERZMAŃSKA, A. (1977). Fossil bony fishes from the Miocene of Upper Silesia, Poland. – Acta Paleontologica Polonica, 7, p. 235–247.
- KIRIAKOFF, S. G. (1957). La taxinomie, la biogéographie et la loi de Vavilov. – Ann. Soc. roy. Zool. Belg., 87, p. 187–209.
- LOWENSTEIN, O. (1957). The sense organs: the acoustico-lateralis system. – In: BROWN, M. E. (ed.), The Physiology of fishes, II. Behavior. p. 155–186, (Academic Press), New York.
- MILES, R. S. (1973). Relationships of acanthodians. – Zool. J. Linnean Soc., 53, suppl. 1, p. 63–103.
- NOLF, D. & MARTINELL, J. (1980). Otolithes de Téléostéens du Pliocène des environs de Figueras (Catalogne). – Geologica et Paleontologica, 14, p. 209–234.
- NOLF, D. & SMITH, R. (1983). Les otolithes de téléostéens du stratotype des Sables d'Edegem (Miocène Inférieur de la Belgique). – Bull. Soc. belge Géol., 92, p. 89–98.
- NORMAN, J. R. & GREENWOOD, P. H. (1975). A history of Fishes. – 467 pp., (Ernst Benn Ltd.), London.
- ØRVIG, T. (1972). The latero-sensory component of the dermal skeleton in lower vertebrates and its phyletic significance. – Zoologica Scripta, 1, p. 139–155.
- PATTERSON, C. (1977). The contribution of paleontology to teleostean phylogeny. In: HECHT, M. K., GOODY, P. C. & HECHT, M. B. (eds.), Major patterns in vertebrate evolution. – p. 575–643, (Plenum), New York.
- PATTERSON, C. (1980). Phylogenies and Fossils (reviews). – Syst. Zool., 29, p. 216–219.
- PATTERSON, C. & ROSEN, D. E. (1977). Review of Ichthyodectiform and other Mesozoic Teleost Fishes and the theory and practice of classifying fossils. – Bull. Amer. Mus. Natur. Hist., 158, Art. 2, p. 81–172.
- REGAN, C. T. (1909B). The classification of teleostean fishes. – Ann. Mag. Natur. Hist., 7, (11), p. 75–86.
- RICHTER, R. (1948). Einführung in die Zoologische Nomenklatur durch Erläuterung der Internationalen Regeln. – 252 pp., (Waldemar Kramer Verlag), Frankfurt am Main.
- ROSEN, D. E. (1973). Interrelationships of higher euteleostean fishes. – Zool. J. Linnean Soc., 53, suppl. 1, p. 397–513.
- ROSEN, D. E., FOREY, P. L., GARDINER, B. G. & PATTERSON, C. (1980). – Lungfishes, tetrapods, paleontology and plesiomorphy. – Bull. Amer. Mus. Natur. Hist., 167, Art. 4, p. 159–276.
- ROSEN, D. E. & GREENWOOD, P. H. (1970). Origin of the weberian apparatus and the Relationships of the Ostariophysan and Gonorhynchiform Fishes. – Amer. Mus. Novitates, 2428, p. 1–25.
- ROSEN, D. E. & PATTERSON, C. (1969). The structure and relationships of the paracanthopterygian fishes. – Bull. Amer. Mus. Natur. Hist., 141, Art. 3, p. 357–474.
- SCHÄFER, W. (1966). Aktuopaläontologische Beobachtungen 6. Otolithen-Anreicherungen. – Natur und Museum, 69, p. 439–444.
- STEURBAUT, E. (1984). Les otolithes de Téléostéens de l'Oligo-Miocène d'Aquitaine (Sud-Ouest de la France). – Palaeontographica A, 186, p. 1–162.
- TAVERNE, L. & NOLF, D. (1979). Troisième note sur les poissons des Sables de Lede (Eocène belge): Les fossiles autres que les otolithes. – Bull. Soc. belge Géol., 87, No. 3, p. 125–152.
- WEITZMAN, S. H. (1962). The osteology of *Brycon meeki*, a generalized characid fish, with an osteological definition of the family. – Stanford ichthyol. Bull., 8, No. 1, p. 1–77.
- (1974). Osteology and evolutionary relationships of the Sternoptychidae, with a new classification of stomiatoid families. – Bull. Amer. Mus. Natur. Hist., 153, Art. 3, p. 327–478.
- WILLIAMS, T. & BEDFORD, B. C. (1974). The use of otoliths for age determination. – In: BAGENAL, T. B. (ed.), The aging of fish, p. 114–123, (Unwin Brothers Ltd), Survey.

Important recent publications after 1980 of which genera and species are not included in the text:

- GAEMERS, P. A. M. & SCHWARZHANS, W. (1982). Fisch-Otolithen aus der Typuslokalität der Obermiozänen Sylt-Stufe (Morsum-Kliff, Insel Sylt, Nordwestdeutschland). – Leidse Geol. Meded., 52, p. 119–177.
- GRENFELL, H. R. (1982). Early Miocene teleost otoliths from Pargarenga Harbour, New Zealand. – New Zealand J. Geol. Geophys., 27, p. 51–96.
- NOLF, D. & STEURBAUT, E. (1983). Revision des otolithes de téléostéens du Tortonien stratotypique et de Montegibbio (Miocène Supérieur d'Italie septentrionale). – Meded. Werkgroep Tertiaire Kwartaire Geol., 20, No. 4, p. 143–197.



- SCHWARZHANS, W. (1981). Vergleichende morphologische Untersuchungen an rezenten und fossilen Otolithen der Ordnung Ophidiiformes. – Berliner geowiss. Abh. (A), 32, p. 63–122.
- STEURBAUT, E. (1984). Les otolithes de téléostéens de l'Oligo-Miocène d'Aquitaine (Sud-Ouest de la France). – Palaeontographica A, 186, p. 1–162.

- STEURBAUT, E. & JONET, S. (1982). Révision des otolithes de téléostéens du Miocène portugais. – Bull. Soc. belge Géol., 90 (1981), fac. 3, p. 191–229.
- STINTON, F. (1984). Fish otoliths from the English Eocene, part 5. – Palaeontogr. Soc. Monogr., p. 259–320.

## Abbreviations used in Figures

The scale in all figures measures 1 mm.

- a.g. – acoustic ganglion  
 ar – antirostrum  
 avc – anterior vertical semicircular canal
- br – brain
- d.r. – dorsal rim
- exc – excissura
- f.g. – facial ganglion
- h.c. – horizontal semicircular canal
- i.c. – invagination canal
- l.o. – lagenar otolith

- n – notochord
- o.r. – ostial rim  
 o.v. – otic vesicle
- p.e.d. – primordium of endolymphatic duct  
 p.r. – posterior rim  
 p.v.c. – posterior vertical semicircular canal
- r – rostrum
- s.o. – saccular otolith
- u.o. – utricular otolith
- v.f. – ventral furrow  
 v.r. – ventral rim

## Annotated list of the nominal otolith-based fossil fish species

In this list, I attempt a review of all otolith-based fossil fish species. All names are spelled as in the original description, and if a name is not yet considered valid, a brief comment on synonymy or reasons for rejection of the species is given.

Species are arranged in alphabetical order of generic name, disregarding the prefix «*Otolithus*» or «genus». In names such as *Otolithus* (incertae sedis) *umbonatus*, incertae sedis (or the abbreviation inc. sed.) is treated as generic name. In some rare cases of species lacking a real generic name (e.g. *Otolithus amygdalinus* SCHRÖDER 1961) the species name is treated as a generic name in the alphabetical arrangement.

For all species preceded by T, I have examined the holotype, lectotype, or syntypes. In all other cases, my opinion is based on the original description and figures. In order to avoid misunderstanding, it seems useful to comment on the frequently repeated evaluations «rejected species», «doubtful species», and «cannot be evaluated on the basis of the iconography». In every case, these judgments are the personal opinion of the present writer. There is no rule of zoological nomenclature that forbids further use of such species, if others judge they can recognize useful features on the type material, characterizing the otoliths concerned at specific level.

The term «rejected species» is used in all cases where the type material is so eroded that it is impossible to judge what are real features at specific level, or on what basis the species should be distinguished from related species. It is another matter whether the higher taxonomic relations of such species can be identified or not. For example, the holotype of *Otolithus* (*Sparidarum*) *lemoini* PRIEM 1906, (refigured by NOLF 1975, pl. 1, fig. 20) may very probably be attributed to the genus *Centroberyx* GILL 1862, but erosion of the specimen makes it impossible to decide by which characters it can be distinguished from other species such as *Centroberyx eocenicus* (FROST 1933), *C. pattersoni* NOLF 1975, or the Recent *C. affinis* (GÜNTHER 1859). Also, many of the rejected sciaenid species of SCHUBERT can easily be referred to the genera *Umbrina* CUVIER 1817 or *Argyrosomus* DE LA PYLAE 1835, but at the specific level, erosion of the types does not allow one to decide by which characters they differ from other species of those genera.

As a rule, I only use the term «rejected species» in cases where I could examine the type material of the species concerned and in some rare cases where good iconography strongly suggests very worn specimens.

The term «doubtful species» is used when I was not able to examine the type material, and my evaluation is only based on the original description and iconography, which



suggests rejection or doubt. The term is also used for some species based on very juvenile otoliths, lacking relevant specific features.

The term «cannot be evaluated on the basis of the iconography» is used in the many cases where I could not examine the type material and where neither the original description or the iconography provided a solid basis for judging preservation or systematic position of the species. It is likely that in this group several valid species will turn up in the future, especially among those of FROST and STINTON, when types are in the British Museum (Natural History), but for many other species evaluation will probably never be possible, as the type material is lost, or in some forgotten collection.

Finally, with the purpose of making comments on opinion in my list as concise as possible, it seems necessary to give some preliminary account of a few problematic publications.

The first is STINTON's monograph «Fish otoliths from the English Eocene» (4 parts published, 1975, 1977, 1978, 1980, treating all fish families up to the Gerridae in the classification of GREENWOOD et al. 1966). In this work, STINTON describes 310 species, including 206 new to science. Of those 206 new species, 101 are based on one single specimen. Apart from the fact that 310 species seems exceedingly high for this still incomplete faunal survey (the total otolith fauna of the Belgian Eocene, a series of equally well-prospected and otolith-bearing deposits, only contains about 130 species), we think that the 101 single specimen-based new species will especially provoke the criticism of every experienced taxonomist. In many cases, those species (and also many of the 105 other new ones) are no more than marginal variations of well represented species; they include juvenile or atypical specimens, and several rather strongly eroded otoliths, introduced in spite of the author's strict recommendations regarding the state of preservation of fossil otoliths (STINTON 1975, p. 2).

In parts 1-3 of the monograph, it is generally possible to decide on synonymy or rejection of several of the new species. Things become more complicated with part 4, where many new species are based on single or very few juvenile lower perciform otoliths. Several of those otoliths are fairly well preserved, but they show such a generalized morphology that nothing can be said on their affinities or relations to larger specimens from the same strata. No good reason can be given for rejecting such species, but they are useless for any comparative purpose and probably will be of no interest in the future. In many cases, their generic identification is just a guess, «maybe, maybe not». Those species are designated as «doubtful» in my list, without further comments.

The next problematic publication is FRIZZEL & DANTE (1965). In this paper, all newly introduced species are only illustrated by paratypes, while the unfigured holotypes are

deposited in the United States National Museum of Natural History, Washington, D.C. Several of the figured paratypes are rather poorly preserved, but we have seen the holotypes of some of the species, and nearly all are very good specimens. Anyhow, evaluation of the species introduced by FRIZZEL & DANTE (1965) requires examination of the holotypes, and is hazardous on the basis of the published iconography.

Although most of WEILER's work may be considered very valuable, his publications on Mesozoic otoliths certainly constitute the most problematic part of the whole otolith literature, especially his contributions in MARTIN & WEILER (1954, 1957 and 1965). In those publications WEILER described 53 new species, nearly all based on very small specimens (dimension about 1 mm) with an extremely generalized morphology of plesiomorph teleost otoliths. Most of the smallest specimens were attributed to leptolepids, while several of the larger ones were classified in the lycoperids. I have examined all the type material relevant to these publications. In many cases, the series of specimens grouped in one species are just as different (or similar) as the holotypes of different species. With regard to the extremely generalized morphology and lack of useful taxonomic features, it is virtually impossible to decide which of the slight morphological differences are the effect of intraspecific variability and which are true species characteristics. Most of these otoliths probably come from very juvenile fishes, but even this cannot be stated certainly, and their generic attributions must at least be qualified as doubtful. In my opinion, the number of species introduced by WEILER is highly exaggerated, but due to the lack of useful features it is impossible to decide how they should be synonymized. In my list, those species showing features that perhaps may be regarded as truly distinctive are maintained, while all the others are qualified as doubtful, without further comment.

The last publication that needs particular comments is WEILER (1943) on the Upper Miocene otoliths of Southern Rumania. Nearly all the new species described in this paper come from very juvenile, perhaps even larval fishes. Especially for the macrourids, many new species are based on such material. As almost nothing is known of the morphology, variability and features of the juvenile Recent otoliths, such species are very difficult to evaluate. On the other hand, we know extensive faunas of adult macrourids, gadids and melanonids from the Mediterranean Neogene and nearly all of these can easily be attributed to Recent genera. It is very probable that the species described by WEILER represent their juvenile stages. Considering that very juvenile otoliths usually do not present useful specific features, many of these species are considered as doubtful in my list.

The deadline for including species in the list has been set on December 31st, 1980.



- T - *Acantochaetodon longirostrum* STINTON 1966 = rejected species (strongly eroded unique specimen).
- *Achirus fordycei* SCHWARZHANS 1980.
- *Acropomatinarum kaiatanus* SCHWARZHANS 1980 = «genus *Acropomatidarum*» *kaiatanus*.
- *Acropomidarum martini* GAEMERS & VAN HINSBERGH 1978 = *Parascombrops martini*.
- *Actuariolum otekaikensis* SCHWARZHANS 1980 = «genus *Moridarum*» *otekaikensis*.
- *Adioryx amplus* SCHWARZHANS 1980.
- T - *Adioryx ostialis* STEURBAUT 1979.
- T - *Agonus elongatus* WEILER 1950.
- *Otolithus (Agonus) eocenicus* FROST 1934 = *Saurida recta* (FROST 1933), see STINTON (1977, p. 85).
- T - *Otolithus (? Agonus) primas* KOKEN 1891 = *Agonus primas*.
- T - *Agonus rugatus* STINTON 1966 = rejected species (eroded unique juvenile specimen).
- T - *Otolithus (Albula) bartonensis* FROST 1933 = rejected species (strongly eroded holotype).
- T - *Otolithus (Albula) eppi* FROST & WHITE 1931 = *Albula eppi*.
- T - *Albula hantoniensis* STINTON 1975 = rejected species (eroded holotype).
- T - *Albula incurvata* STINTON 1975.
- T - *Albula marginalis* STINTON 1975 = rejected species (eroded holotype).
- *Albula obesa* STINTON 1973 = doubtful species (strongly eroded unique specimen).
- T - *Albula raphiodon* STINTON 1975.
- *Alectis simus* STINTON 1980 = doubtful species (based on an unique juvenile specimen).
- *Alepocephalus novus* STINTON 1977 = rejected species (strongly eroded unique specimen).
- *Allomorone burlesonis* DANTE & FRIZZELL in FRIZZELL & DANTE (1965). Cannot be evaluated on the basis of the iconography.
- *Alosa incisa* STINTON 1977 = «genus *Clupeidarum*» *incisa*.
- T - *Amanses sulcifer* STINTON 1966.
- T - *Ambassis electilis* STINTON & NOLF 1970 = «genus *Chandidarum*» *electilis*.
- T - *Ammodytes lanceolatus sculptus* GAEMERS & SCHWARZHANS 1973 = *Ammodytes lanceolatus* LE SAUVAGE 1824, see NOLF (1978b, p. 531).
- T - *Ammodytes rostratus* GAEMERS & SCHWARZHANS, 1973 = doubtful species, see NOLF, 1978b, p. 531.
- T - *Ammodytes vasseuri* NOLF & LAPIERRE 1977.
- *Ampheristus sinuocaudatus* SCHWARZHANS 1980.
- *Otolithus amygdalinus* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- *Anchoa nitida* SCHWARZHANS 1980.
- T - *Anguilla annosa* STINTON 1975.
- *Anguilla pectinata*, STINTON 1977 = rejected species (unique eroded and broken specimen).
- T - *Anguilla rectangularis* STINTON & NOLF 1970.
- T - *Anguilla rouxi* NOLF 1974.
- *Antennarius curvatus* STINTON 1978 = doubtful species (eroded unique specimen).
- *Antennarius excavatus* STINTON 1978.
- *Antennarius falcatus* STINTON 1978 = doubtful species (eroded holotype).
- *Antennarius hamatus* STINTON 1978 = doubtful species (unique specimen with doubtful characters).
- *Antennarius validus* STINTON 1978 = doubtful species, perhaps a synonym of *Antennarius excavatus* STINTON 1978.
- *Anthias dentifer* STINTON 1980. Cannot be evaluated on the basis of the iconography.
- *Anthias elegans* STINTON 1980 = doubtful species (unique juvenile specimen).
- *Anthias excultus* STINTON 1980 = a juvenile of *Spicara minsterensis* (FROST 1934).
- *Anthracopectera siebergi* VOIGT 1934.
- T - *Antigonia angusta* STINTON & NOLF 1970.
- *Antigonia fornicata* STINTON 1963. Cannot be evaluated on the basis of the iconography.
- *Antigonia postangusta* HOLEC 1975 = *Antigonia* aff. *capros* LÖWE 1843.
- *Aphanius (Aphanius) chios* MALZ 1978.
- T - *Aphanius germaniae* WEILER 1963.
- *Aphanius moraviae* BRZOBHATY 1969.
- *Apogon aculeatus* STINTON 1980.
- T - *Apogon arambourgi* STINTON & NOLF 1970 = *Apogon macrolepis* STORMS 1898, see NOLF & CAPPETTA (1976, p. 262).
- T - *Apogon banaticus* WEILER 1950 = *Apogon* aff. *imberbis* (LINNAEUS 1758).
- *Apogon decoratus* STINTON 1980.
- T - *Apogon glaber* STINTON 1966.
- *Apogon imberboides* WEINFURTER 1952. Cannot be evaluated on the basis of the iconography.
- *Apogon lozanoi* BAUZA RULLAN 1957.
- T - *Otolithus (Apogon) minimus* PIERAGNOLI 1919 = *Trachyrhynchus trachyrhynchus* (RISSO 1810).
- *Apogon quadrangularis* SULC 1932 = *Diaphus quadrangularis*.
- T - *O. (Apogon?) ribicensis* SCHUBERT 1912 = doubtful species, see NOLF (1981).
- *Apogon spictatus* STINTON 1962. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Apogon) tuberculatus* FROST 1934.
- T - *Ot. (Apogonidarum) circularis* SHEPHERD 1916 = «genus *Heterenchelyidarum*» *circularis* (lectotype indicated by NOLF 1975a, p. 149).
- T - *Ot. (Apogonidarum) eocenicus* SHEPHERD 1916 = *Hildebrandia eocenica*.
- T - *Otolithus (Apogonidarum) hospes* KOKEN 1891 = «genus *Berycidarum*» *hospes*.
- T - *Ot. (Apogonidarum) nota* SHEPHERD 1916 = rejected species, see NOLF & LAPIERRE (1979, p. 102).
- *Apogonidarum ventrolobatus* SCHWARZHANS 1973.
- T - *Otolithus (Apogoninarum) boulei* PRIEM 1906 = *Apogon macrolepis* STORMS 1898, see NOLF (1975a, p. 207).
- *Otolithus (Apogoninarum) frosti* VORSTMAN 1927. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Apogoninarum) ingens* KOKEN 1884 = *Centroberyx ingens*.
- *Otolithus (Apogoninarum) integer* KOKEN 1885 = *Centroberyx integer*.
- *Otolithus (Apogoninarum) laciniatus* KOKEN 1885 = «genus *Trachichthyidarum*» *laciniatus*.
- T - *Otolithus (Apogoninarum) orbicularis* PRIEM 1906 = *Electrona risso* COCCO 1829, (based on a recent specimen, see NOLF 1975a, p. 207).
- T - *Otolithus (Apogoninarum) subrotundus* KOKEN 1884 = *Centroberyx ingens* (KOKEN 1884).
- *Apomotis adunctus* STINTON 1980 = «genus *Percoideorum*» *adunctus*.
- *Apsilus latus* STINTON 1980.
- *Archaealbulula alabamae* FRIZZELL 1965 = «genus *Albulidarum*» *alabamae*.
- *Archaeotolithus trigonalis* STOLLEY 1910. Cannot be evaluated on the basis of the iconography.
- T - *Archegadus comptus* STINTON 1965 ? = «genus *Gadidarum*» *ornatus* (STINTON 1965), see NOLF (1978a, p. 225).
- T - *Archemacrouroides ornatus* STINTON 1965 = «genus? *Gadidarum*» *ornatus*, see NOLF (1978a, p. 225).
- *Archengraulis productus* STINTON & TORRENS 1968, Cannot be evaluated on the basis of the iconography.
- *Arctoscopus shimokitaensis* HATAI 1965. Cannot be evaluated on the basis of the iconography.
- T - *Argentina abbatiae* STINTON 1965 = «genus aff. *Osmerus*» *abbatiae*.
- T - *Argentina cyclomorpha* WEILER 1950 = «genus *Gonostomatidarum*» *cyclomorpha*.
- T - *Argentina ? elongata* WEILER 1943 = rejected species (holotype is now broken, and lacks about 1/3 of his posterior part).
- T - *Otolithus (Argentina) erectus* FROST 1933 = «genus *Osmeridarum*» *hampshirensis* (SCHUBERT 1916).
- T - *Argentina extenuata* STINTON 1966.



- T - *Argentina planulata* STINTON 1965 = rejected species (strongly eroded holotype).
- T - *Argentina retusa* STINTON 1966 = «genus aff. *Osmerus*» *hampshirensis* (SCHUBERT 1916).
- T - *Argentina rumana* WEILER 1963 = doubtful species (holotype is a very juvenile specimen of a protacanthopterygian or perciform fish).
- *Argentina subfrigida* SCHWARZHANS 1980.
  - *Argyropelecus weinfurteri* BRZOBOHATY & SCHULTZ 1978 = *Valenciennellus weinfurteri*.
- T - *Ariosoma coheni* NOLF & MARTINELL 1980.
- *Otolithus (Arius) aequus* FROST 1934 = *Arius aequus*.
  - *Otolithus (Arius) africanus* FROST 1925. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Arius) amekiensis* FROST 1925. Cannot be evaluated on the basis of the iconography.
  - *Ot. (Arius) anglicus* BASSOLI 1909. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Arius) angulatus* FROST 1925. Cannot be evaluated on the basis of the iconography.
  - *Arius cavatus* STINTON 1962. Cannot be evaluated on the basis of the iconography.
  - *Ot. (Arius) crassus bartonensis* SHEPHERD 1916 = *Arius crassus* (KOKEN 1884), see STINTON (1977, p. 71).
  - *Otolithus (Arius) danicus* KOKEN 1891 = «genus *Ariidarum*» *danicus*, see NOLF (1978a, p. 224).
  - *Ot. (Arius) danicus bartonensis* SHEPHERD 1916 = *Arius crassus* (KOKEN 1884), see STINTON (1977, p. 71).
- T - *Otolithus (Arius) germanicus* KOKEN 1891 = *Arius germanicus*.
- *Otolithus (Arius?) glaber* VOIGT 1926 = «genus *Ariidarum*» *glaber*.
  - *Otolithus (Arius) jaekeli* RICHTER 1928. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Arius) lerichei* PRIEM 1906 = rejected species, see NOLF (1975, p. 210).
- T - *O. (Arius?) moravicus* SCHUBERT 1908 = rejected species, see NOLF (1981, p. 136).
- T - *Otolithus (Arius) planus* FROST 1934.
- *O. (Arius) rotundatus* ROEDEL 1930 ? = «genus *Ariidarum*» *danicus* KOKEN 1891.
  - *Arius rutschi* CASIER 1958 = «genus *Ariidarum*» *rutschi*.
  - *Otolithus (Arius) tenuis* FROST 1925. Cannot be evaluated on the basis of the iconography.
  - *Arius umbonatus* JONET 1980 = *Arius* aff. *heudeloti* VALENCIENNES 1840.
- T - *Otolithus (Arius) vangionis* KOKEN 1891 = «genus *Ariidarum*» *vangionis*.
- *Arnoglossus bauzai* SANZ 1950.
  - *Arnoglossus extremus* SCHWARZHANS 1980. A nominal valid species, but the unique holotype may be an abnormal otolith.
  - *Arnoglossus inconspicuum* SMIGIELSKA 1973 = *Arnoglossus miocenicus* WEILER 1962, see STEURBAUT (1979, p. 78).
  - *Arnoglossus longus* SCHWARZHANS 1980.
  - *Arnoglossus miocenicus* WEILER 1962.
  - *Arnoglossus novus* SCHWARZHANS 1980 ? = *Arnoglossus longus* SCHWARZHANS 1980.
- T - *Astroconger crassus* STINTON 1975 = rejected species (strongly eroded unique specimen).
- T - *Astroconger ellipticus* STINTON 1975 = rejected species (eroded).
- *Astroconger rostratus* STINTON 1958 = doubtful species (strongly eroded unique specimen).
- T - *O. (Atherina) austriacus* SCHUBERT 1906 = *Atherina austriaca*.
- T - *Ot. (Atherina) cantiana* SHEPHERD 1916 = «genus *Albulideorum*» *cantianus* (SHEPHERD 1916).
- T - *Atherina margereli* NOLF & LAPIERRE 1977.
- *Aulopus pristinus* SCHWARZHANS 1980 = doubtful species (eroded unique specimen).
- T - *Aulopus sinuosus* STINTON 1977.
- *Austrophycis pseudomegalops* SCHWARZHANS 1980.
  - *Otolithus bambergensis* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- T - *Bathycongrus circularis* STINTON 1966 = rejected species (holotype is an eroded juvenile specimen).
- *Bathycongrus twistringensis* SCHWARZHANS 1976 ? = *Hildebrandia fallax* (KOKEN 1891).
- T - *Bauzaia lamberi* DANTE & FRIZZELL in FRIZZELL & DANTE (1965) = «genus *Lepophidiinorum*» *lamberi*, see NOLF (1980, p. 103).
- T - *Bauzaia melrosensis* DANTE & FRIZZELL in FRIZZELL & DANTE (1965) = *Hoplobrotula melrosensis*, see NOLF (1980, p. 103).
- *Bauzaia ornatissima* ROBBA 1970 = *Hoplobrotula gibba* (BASSOLI 1906), see NOLF (1980, p. 103).
  - *Bauzaia tuberosa* ROBBA 1970 = *Hoplobrotula tuberosa*, see NOLF (1980, p. 103).
  - *Belone derasmoi* BAUZA RULLAN 1955 = doubtful species (eroded holotype).
- T - *Bembrops vandeveldeae* STEURBAUT 1979.
- *Benthoosema fitchi* BRZOBOHATY & SCHULTZ 1978.
  - *Otolithus (Berycidarum) atjehensis* FROST 1925. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Berycidarum) austriacus* KOKEN 1891 = doubtful species (the so called lectotype of this species, indicated by ZILCH 1965, pl. 37, fig. 1, belongs to a different species from the otolith figured by KOKEN, the latter probably represents a slightly eroded otolith of *Diaphus debilis* KOKEN 1891).
- *O. (Berycidarum) balticus* ROEDEL 1930. Cannot be evaluated on the basis of the iconography; perhaps an osmerid.
  - *Otolithus (Berycidarum?) bouryi* PRIEM 1912 = doubtful species (eroded holotype).
  - *Otolithus (Berycidarum?) carinthiacus* LIEBUS 1927. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Berycidarum) debilis* KOKEN 1891 = *Diaphus debilis*, see NOLF (1977a, p. 18).
  - *Otolithus (Berycidarum) fragilis* PROCHAZKA 1893. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Berycidarum) geron* KOKEN 1891 = «genus *Acropomatidarum*» *geron* (The specimen of KOKEN's pl. VIII, fig. 5 is indicated as lectotype; specimens of his pl. IX, fig. 7 & 8 belongs to chandids).
- *Otolithus (Berycidarum) hemmoorensis* WEILER 1942 = doubtful species (unique juvenile specimen).
  - *Otolithus (Berycidarum?) incertus* PRIEM 1911. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Berycidarum) insoletus* PROCHAZKA 1893 = doubtful species (eroded holotype).
  - *Otolithus (Berycidarum) kokeni* PROCHAZKA 1893 ? = *Diaphus debilis* (KOKEN 1891) see NOLF (1977a, p. 18).
- T - *Ot. (Berycidarum) latus* BASSOLI 1909 = rejected species (eroded, incomplete holotype).
- T - *Ot. (Berycidarum?) legitimus* WEILER in MARTIN & WEILER (1954) = rejected species (holotype shows nothing of the morphology drawn by WEILER; not even certainly an otolith).
- T - *Otolithus (Berycidarum) major* SCHUBERT 1905 = *Glyptophidium major*, see NOLF (1980a, p. 104).
- *Ot. (Berycidarum) marchicus* ROEDEL 1930. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Berycidarum) mediterraneus* KOKEN 1891 = rejected species, see STEURBAUT (1979, p. 61).
- *Otolithus (Berycidarum) moravicus* PROCHAZKA 1893. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Berycidarum) neglectus* KOKEN 1891. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Berycidarum?) parvulus* KOKEN 1891 = *Argentina parvula*.
- *Otolithus (Berycidarum) pulcher* PROCHAZKA 1893 = rejected species (based on an eroded juvenile myctophid otolith).
- T - *Otolithus (Berycidarum) rhenanus* KOKEN 1891 = *Daphalis rhenanus*.
- *Otolithus (Berycidarum) splendidus* PROCHAZKA 1893. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Berycidarum) sulcatus* BASSOLI 1906 = *Diaphus sulcatus*.
- T - *Otolithus (Berycidarum) tenuis* SCHUBERT 1916 = rejected species, see NOLF (1981, p. 139).



- T - *Otolithus (Berycidarum) tuberculatus* BASSOLI 1906 = *Dia-phus sulcatus* (BASSOLI 1906).
- *Otolithus (Berycidarum) supracretaceus* KOKEN 1891. Cannot be evaluated on the basis of the iconography.
- T - *Ot. (Beryciformes?) arrondatus* WEILER in MARTIN & WEILER (1954) = rejected species (eroded holotype).
- T - *Otol. (Beryciformes?) dentatus* WEILER in MARTIN & WEILER (1954) = «genus *Elopomorphorum*» *dentatus*.
- T - *Otol. (Beryciformes?) lobatus* WEILER in MARTIN & WEILER (1954) = «genus *Euteleosteorum*» *lobatus*.
- T - *Otol. (Beryciformes?) spatulatus* WEILER in MARTIN & WEILER (1954) = doubtful species.
- T - *Otol. (Beryciformes?) superficialis* WEILER in MARTIN & WEILER (1954) = «genus *Teleosteorum*» *superficialis*.
- *Otol. (Beryciformes?) triangulatus* WEILER in MARTIN & WEILER (1954) = «genus *Elopomorphorum*» *triangulatus*.
- *Otolithus (Beryx) eocenicus* FROST 1933 = «genus *Berycidarum*» *lerichei* (SCHUBERT 1916).
- *Beryx nova* STINTON 1978 = «genus *Berycidarum*» *lerichei* (SCHUBERT 1916)
- *Beryx weileri* HATAI 1965 = *Gobius* sp.
- T - «genus *Blenniidarum*» *blondeaui* NOLF & LAPIERRE 1979.
- *Ot. (Blenius) praeocellaris* BASSOLI 1909. Cannot be evaluated on the basis of the iconography.
- *Bonapartia spina* HEINRICH 1969 = *Maurolicus muelleri* (GMELIN 1789), see STEURBAUT (1979, p. 57).
- T - «genus *Bothidarum*» *biaculeatus* NOLF & LAPIERRE 1979.
- *Bothidarum dorsolobatus* SCHWARZHANS 1980.
- *Bothidarum rhomboides* SCHWARZHANS 1973.
- *Bothidarum weileri* SCHWARZHANS 1974 = doubtful species (very juvenile holotype).
- T - *Otolithus (Bothus) contortus* FROST 1934 = rejected species, see NOLF (1980, p. 104).
- T - *Bothus decipiens* STINTON 1966 = «genus *Bothidarum*» *decipiens*.
- *Bothus rosenthalensis* WEILER 1942 = «genus *Bothidarum*» *rosenthalensis*.
- T - ? *Bothus semen* NOLF 1973 = «genus *Bothidarum*» *semen*.
- *Brazosiella kokeni* DANTE & FRIZZELL in FRIZZELL & DANTE (1965) = *Lactarius kokeni*.
- *Brazosiella moseleyi* DANTE & FRIZZELL in FRIZZELL & DANTE (1965). Cannot be evaluated on the basis of the iconography.
- *Bregmaceros antiquus* SCHWARZHANS 1980.
- *Bregmaceros minutus* STINTON 1958.
- *Bregmaceros oblongus* SCHWARZHANS 1977.
- *Bregmaceros troelli* DANTE & FRIZZELL in FRIZZELL & DANTE (1965).
- *Brosme heinrichi* GAEMERS 1976.
- *Brosme tejkali* BRZOBHATY & SCHULTZ 1978 = «genus *Merluciiarum*» *tejkali*.
- «genus aff. *Brosmophycis*» *brevis* NOLF 1974 = «genus *Neobythitinarum*» *brevis*, see NOLF (1980a, p. 104).
- T - *Brotula aquitanica* NOLF 1980.
- T - *Brotula arcuata* STINTON 1966 = «genus *Sirembinorum*» *arcuatus*, see NOLF (1980a, p. 105).
- *Brotulidarum cetonaensis* SCHWARZHANS 1979 = «genus *Neobythitinarum*» *cetonaensis*, see NOLF (1980, p. 105).
- T - *Otolithus (Brotulidarum) niederleisensis* SCHUBERT, 1906 = «genus *Ogcocephalidarum*» *niederleisensis*, see NOLF (1980, p. 105).
- T - *Brotulidarum phaseoloides* GAEMERS & VAN HINSBERGH 1978 = «genus *Congridarum*» *phaseoloides*, see NOLF (1980, p. 105).
- T - *Otolithus (Brotulidarum) rzehaki* SCHUBERT 1906 = «genus *Ophidiidarum*» *rzehaki* (SCHUBERT 1906), see NOLF (1980, p. 106).
- T - *Caesio bognorensis* STINTON 1957 = rejected species (strongly eroded holotype).
- *Caesio comptus* STINTON 1980 = doubtful species (unique juvenile specimen with generalised morphology).
- T - ? *Caesio concavissimus* NOLF 1973 = «genus aff. *Caesio*» *bourdoti* (PRIEM 1906), see NOLF (1975, p. 206).
- T - *Callionymus lerenardi* NOLF & LAPIERRE 1979.
- T - *Callionymus primus* WEILER 1943.
- *Callionymus schuermanni* SCHWARZHANS 1973.
- *Otolithus calloviensis* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Cantharus) denticulatus* FROST 1934 = «genus *Sparidarum*» *denticulatus*.
- *Cantharus perneri* SULC 1932 = *Dentex perneri*.
- T - *O. (Cantharus) tietzi* SCHUBERT 1906 = «genus *Percoideorum*» *tietzi*, see NOLF (1981, p. 141).
- T - «genus *Caproidarum*» *sonodae* NOLF & LAPIERRE 1979.
- *Capros exiguus* STINTON 1978 = «genus *Caproidarum*» *exiguus*.
- *Capros incisus* STINTON 1978 = «genus *Caproidarum*» *exiguus* (STINTON 1978).
- T - *Otolithus (Carangidarum) americanus* KOKEN 1888 = «genus *Pomadasyidarum*» *americanus*.
- T - *Otolithus (Carangidarum) inflatus* BASSOLI 1906 = *Pomadasys aff. incisus* (BOWDICH 1825).
- *Carangidarum robustus* GAEMERS & VAN HINSBERGH 1978 = «genus *Percoideorum*» *robustus*.
- *Caranx annectens* STINTON 1980 = doubtful species (unique eroded juvenile).
- *Caranx extenuatus* STINTON 1980.
- *Caranx praelatus* STINTON 1980 = doubtful species (unique juvenile specimen).
- T - *Carapus nuntius elongatus* GAEMERS & SCHWARZHANS 1973 = *Echiodon elongatus*, see NOLF (1980, p. 106).
- *Carapus praeursor* SCHWARZHANS 1980.
- T - *Carapus praeimberbis* WEILER 1971 = *Echiodon praeimberbis* WEILER 1971, see NOLF (1980, p. 186).
- *Carapus smithvillensis* DANTE & FRIZZELL in FRIZZELL & DANTE (1965).
- *Caulolatilus denticulatus* STINTON 1980 = doubtful species (unique small species with very generalized morphology).
- *Centracanthus convexus* STINTON 1980 = doubtful species (see preliminary remarks to this list).
- *Centracanthus exacutus* STINTON 1980 = doubtful species (unique juvenile specimen).
- T - *Centroberyx crenulatus* STINTON 1978 = doubtful species (unique juvenile specimen, possibly abnormal).
- T - *Centroberyx elegans* STINTON 1978 = doubtful species (unique juvenile specimen).
- T - *Centroberyx rotundus* STINTON 1978.
- *Centrogenys ornatus* STINTON 1978 = «genus *Serranidarum*» *ornatus*.
- T - *Centropomus annectens* STINTON 1978 = «genus ? *Centropomidarum*» *annectens*.
- T - *Centropomus excavatus* STINTON 1966 = «genus *Centropomidarum*» *excavatus*.
- T - *Otolithus (Centropomus) superpendens* FROST 1934 = rejected species (strongly eroded unique specimen).
- *Centropristis elongatus* SULC 1932 = «genus *Serranidarum*» *elongatus*.
- T - *Centropristis exsculptus* STINTON & NOLF 1971.
- T - *O. (Centropristis) integer* SCHUBERT 1906 = *Serranus integer*, see NOLF (1981, p. 141).
- T - ? *Centropyge kotthausi* NOLF 1973 = «genus *Pomadasyidarum*» *kotthausi*.
- T - *Otolithus (Cepola) bartonensis* SCHUBERT 1916 = *Cepola bartonensis* SCHUBERT 1916.
- T - *Otolithus (Cepola) elegans* FROST 1934 = *Cepola bartonensis* Schubert 1916.
- *Cepola lanceolata* WEILER 1922. Cannot be evaluated on the basis of the iconography.
- T - *Cepola massiva* NOLF & LAPIERRE 1979.
- *Otolithus (Cepola) oriens* FROST 1925. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Cepola) prerubescens* BASSOLI 1906 = *Cepola macrophthalma* LINNAEUS 1758.
- T - *O. (Cepola) vadazi* SCHUBERT 1912 = «genus ? *Cepolidarum*» *vadazi*, see NOLF (1981, p. 142).
- T - *O. (Cepola) voslauensis* SCHUBERT 1907 = *Cepola macrophthalma* (LINNAEUS 1758), see NOLF (1981, p. 142).



- T - *Otolithus (Cepolae) comes* KOKEN 1888 = *Cepola comes*.  
 - *Ceratoscopelus pabloensis* WEILER 1959 = *Myctophum pabloensis*, see FITCH (1969, p. 15).  
 - *Ceratoscopelus? weileri* BRZOBHATY 1965 = *Hygophum weileri*.
- T - *Chanda bohlkei* NOLF & CAPPETTA 1976.  
 - *Chanda convexa* STINTON 1978.  
 - *Chanda fimbriata* STINTON 1978 = «genus *Chandidarum*» *fimbriatus*.  
 - *Chanda lobata* STINTON 1978.
- T - *Chanda nelsoni* NOLF & CAPPETTA 1980.  
 - *Chanda ovalis* STINTON 1978.  
 - *Chanda pentagonalis* STINTON 1978.  
 - *Chanda rhomboides* STINTON 1978.  
 - *Chanda turgida* STINTON 1978.
- T - «genus *Chandidarum*» *inflatus* NOLF & LAPIERRE 1979.
- T - «genus *Chandidarum*» *steurbauti* NOLF & LAPIERRE 1979.  
 - *Channa antiqua* STINTON 1978.  
 - *Chanos compressus* STINTON 1977.  
 - *Chaunax semiangulatus* STINTON 1978.  
 - *Chelidonichthys curvatus* STINTON 1978 = doubtful species (based on two very juvenile specimens).  
 - *Chelidoperca? sawadai* HATAI 1965. Cannot be evaluated on the basis of the iconography.
- T - *Chirocentrus exilis* STINTON 1977.  
 - *Chirodorus miocenicus* WEINFURTER 1952 = «genus *Hemiramphidarum*» *miocenicus*.
- T - *Chlorophthalmus elongatus* STINTON 1977 ? = *Saurida recta* (FROST 1933).  
 - *Chlorophthalmus integer* SCHWARZHANS 1980.  
 - *Chlorophthalmus miocenicus* SCHWARZHANS 1980.  
 - *Chlorophthalmus oligocenicus* SCHWARZHANS 1980.  
 - *Choloroscombrus comptus* STINTON 1980 = probably a juvenile of *Parastromateus tavernei* NOLF 1973.  
 - *Otolithus (Chrysophris) berauensis* POSTHUMUS 1929. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Chrysophris) doderleini* BASSOLI & SCHUBERT 1906 = *Dentex* aff. *gibbosus* (RAFINESQUE 1980).  
 - *Cirrhitus radians* STINTON 1966 = «genus *Percoideorum*» *radians*.
- T - *Citharichthys varians* STINTON 1966 = rejected species (strongly eroded unique specimen, perhaps an antennariid).  
 - *Citharopsettodes angustus* SCHWARZHANS 1979 = «genus *Bothidarum*» *angustus*.  
 - *Otolithus (Citharus) latisulcatus* FROST 1924. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Citharus) schuberti* BASSOLI 1906 = *Citharus schuberti*.  
 - *Claybornichthys troelli* DANTE & FRIZZELL in FRIZZELL & DANTE (1965). Cannot be evaluated on the basis of the iconography.  
 - *Cleidogonia antiqua* STINTON in STINTON & TORRENS (1968). Cannot be evaluated on the basis of the iconography.  
 - *Cleidopus cavernosus* STINTON 1958 = *Monocentris cavernosus*.  
 - *Clupea bonii* ANFOSSI & MOSNA 1971 = doubtful species (based on not interpretable juvenile otoliths).  
 - *Otolithus (Clupea) priemi* POSTHUMUS 1923? = *Clupea testis* KOKEN 1891.  
 - *Clupea pulchra* SMIGIELSKA 1966 = «genus *Clupeidarum*» *pulcher*.  
 - *Clupea suzini* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.  
 - *Clupea tarchanicus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.  
 - *Otolithus (Clupea) testis* KOKEN 1891 = *Clupea testis*.  
 - *Clupea trolli* WEINFURTER 1954 = «genus *Clupeidarum*» *trolli*.  
 - *Clupea weileri* SMIGIELSKA 1966 = «genus aff. *Etrumeus*» *weileri*.  
 - *Otolithus (Clupeidarum) altus* FROST 1933 = «genus *Osmeridarum*» *hampshiresis* (SCHUBERT 1916), see STINTON (1977, p. 78).
- T - *Otol. (Clupeidarum) alzeyensis* WEILER 1963 = «genus *Clupeidarum*» *alzeyensis*.
- T - *Genus Clupeidarum atuatucae* VAN HINSBERGH 1980.  
 - *Otolithus (Clupeidarum) davisii* FROST 1925 = «genus *Synodontidarum*» *davisii*, see STINTON (1977, p. 83).  
 - *Otolithus (Clupeidarum) dilatus* FROST 1925. Cannot be evaluated on the basis of the iconography.  
 - *Otolithus (Clupeidarum) dilatus* FROST 1933 = obliterated name (praeoccupied by *Clupeidarum dilatus* FROST 1925), now replaced by *Umbra valida* STINTON 1977.  
 - *Clupeidarum incisiareatus* SCHWARZHANS 1980.  
 - *Otolithus (Clupeidarum?) neocomiensis* PRIEM 1908 = «genus *Albuloides*» *neocomiensis*.
- T - «genus *Clupeidarum*» *orbiculatus* NOLF & CAPPETTA 1980.  
 - *Otolithus (Clupeidarum) parvulus* FROST 1925. Cannot be evaluated on the basis of the iconography.
- T - *Otol. (Clupeidarum?) primus* WEILER in MARTIN & WEILER 1954 = «genus *Teleosteorum*» *primus*.
- T - «genus *Clupeidarum*» *schultzi* NOLF & LAPIERRE 1979.  
 - *Otol. (Clupeidarum) singularis* BRZOBHATY 1969 = «genus aff. *Sardinella*» *singularis*.  
 - *Clupeiformorum planus* GAEMERS & VAN HINSBERGH 1978. Cannot be evaluated on the basis of the iconography.  
 - *Coelorhynchus demonstratus* SCHWARZHANS 1980.  
 - *Coelorhynchus elevatus* STINTON 1957 = rejected species (holotype is a strongly eroded unique specimen).  
 - *Coelorhynchus praeceus* BRZOBHATY 1967.  
 - *Coelorhynchus regularis* STINTON 1957 = doubtful species (unique eroded *Coelorhynchus* otolith, not identifiable at specific level).  
 - *Coelorhynchus yakuojiensis* OHE & ARAKI 1973 = doubtful species (based on eroded atypical juvenile otoliths).  
 - *Coelorhynchus triquetrus* STINTON 1977 = rejected species, see NOLF (1978a, p. 225).  
 - *Coilia planata* STINTON 1962. Cannot be evaluated on the basis of the iconography.  
 - *Colliolus johannettae* GAEMERS 1976 = *Trisopterus sculptus* KOKEN 1891.  
 - *Colliolus minutulus* GAEMERS 1978 = «genus *Gadidarum*» *parvus* (GAEMERS 1976) see STEURBAUT & HERMAN (1978 p. 308).  
 - *Colliolus parvus* GAEMERS 1976 = «genus *Gadidarum*» *parvus*.  
 - *Colliolus schwarzhansi* GAEMERS 1976 = *Trisopterus schwarzhansi*.
- T - *Conger acutus* STINTON 1957 = rejected species (very eroded unique specimen).  
 - «*Conger*» *dissimilis* FRIZZELL & LAMBER 1962 = *Gnathophipis dissimilis*.  
 - *Conger durus* AOKI 1968. Cannot be evaluated on the basis of the iconography.  
 - *Conger ellipticus* AOKI 1971 = *Rhynchocymba nystromi* JORDAN & HUBBS 1925.  
 - ? *Conger elongatus* SULC 1932 = *Pseudophipichthys elongatus*.  
 - *Conger extensus* STINTON 1975 = rejected species (eroded holotype).  
 - «*Conger*» *fornicatus* FRIZZELL & LAMBER 1962 = «genus *Congridarum*» *fornicatus*.  
 - *Conger glaber* BRZOBHATY 1967. Cannot be evaluated on the basis of the iconography.  
 - «*Conger*» *meridies* FRIZZELL & LAMBER 1962 = *Paraconger meridies*.
- T - *Conger productus* STINTON 1975 = *Gnathophipis websteri* (FROST 1933).  
 - «*Conger*» *sanctus* FRIZZELL & LAMBER 1962 = *Hildebrandia sancta*.  
 - *Conger? vetustus* FRIZZELL & LAMBER 1962 = *Conger vetustus*.
- T - *Otolithus (Congeris) brevior* KOKEN 1888 = «genus *Ophichthyidarum*» *brevior*.  
 - *Otolithus (Congeris) duvergieri* PRIEM 1914 = *Hildebrandia pantanellii* (BASSOLI 1906).
- T - *Otolithus (Congeris) papointi* PRIEM 1906 = *Paraconger papointi*.  
 - *Otolithus (Congeris) rectus* FROST 1928. Cannot be evaluated on the basis of the iconography.



- *Otolithus (Congeris) wharekuriensis* FROST 1928. Cannot be evaluated on the basis of the iconography.
- *Congermuraena casieri* BAUZA RULLAN 1955 = *Hildebrandia casieri*.
- *Congermuraena elliptica* WEILER 1958 = *Hildebrandia elliptica*.
- *Congermuraena weileri* JONET 1973 = *Rhynchoconger weileri*.
- *Congermuraena semiaperta* BRZOBOHATY 1967 = *Rhechias semiapertus*.
- T - *Congermuraena triangulata* WEILER 1958 = «genus *Congridarum*» *triangulatus*.
- T - *Otolithus (Congridarum) attenuatus* FROST 1933 = rejected species (strongly eroded holotype).
- T - *Otolithus (Congridarum) bartonensis* FROST 1933 = rejected species (strongly eroded holotype).
- *Otolithus (Congridarum) bellus* AOKI 1968 = nominal valid species, but probably a described Recent species.
- *Congridarum brevisulcus* SCHWARZHANS 1980.
- *Otolithus (Congridarum) carinatus* FROST, 1933 = *Gnathophis carinatus* (holotype refigured by SCHWARZHANS 1980).
- *Otolithus (Congridarum) clifdensis* FROST, 1928 = rejected species, see SCHWARZHANS, 1980, p. 169.
- T - *Otolithus (Congridarum) eocenicus* FROST 1933 = «genus *Congridarum*» *websteri* FROST, 1933.
- T - *Otolithus (Congridarum) furcatus* FROST 1933 = «genus *Antennariidarum*» *furcatus*.
- *Otolithus (Congridarum) mysticus* FROST 1933.
- *Otol. (Congridarum) occidentalis* WEILER 1959 = «genus *Congridarum*» *occidentalis*.
- *Otolithus (Congridarum) ornatus* FROST, 1928 = *Gnathophis ornatus* (holotype refigured by SCHWARZHANS 1980).
- *Otolithus (Congridarum) otapiriensis* FROST 1933. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Congridarum) ovalis* WEILER 1942 = *Pseudophichthys ovalis*.
- T - *Otolithus (Congridarum) ovatus* FROST 1933 = rejected species (strongly eroded holotype).
- *Otolithus (Congridarum) rhombicus* AOKI 1971 = *Ariosoma anago* (TEMMINCK & SCHLEGEL 1846).
- *Congridarum sagittisulcus* SCHWARZHANS 1980.
- *Congridarum trapezioides* GAEMERS & VAN HINSBERG 1978. Cannot be evaluated on the basis of the iconography; probably not a congrid.
- *Otolithus (Congridarum) websteri* FROST 1933 = «genus *Congridarum*» *websteri*.
- *Congroideorum obscurus* SCHWARZHANS 1980 = «genus *Congridarum*» *obscurus*.
- *Congromuraena amoris* SULC 1932 = *Paraconger sawagei* (PRIEM 1906), see STINTON & NOLF (1970, p. 221).
- *Congromuraena moravica* SULC 1932 = *Ariosoma moravica* see STEURBAUT 1979, p. 54.
- *Otolithus (? Coregoni) alsheimensis* WEILER 1942 = *Notogoneus longiceps* (VON MEYER 1851).
- *O. (Corvina?) cirrhosoides* SCHUBERT 1902 = *Umbrina cirrhosoides*, see NOLF (1981).
- *Corvina dacica* PANA 1977 = doubtful species (based on eroded juvenile specimens).
- *Corvina dobrogica* PANA 1977. Cannot be evaluated on the basis of the iconography.
- *Corvina pseudoradians* DANTE & FRIZZELL in FRIZZELL & DANTE (1965). Cannot be evaluated on the basis of the iconography (holotype not figured; two figured paratypes may belong to different species).
- *Corvina rhenana* WEILER 1958 = *Umbrina rhenana*, see NOLF (1977).
- *Corvina rumana* PANA 1977. Cannot be evaluated on the basis of the iconography.
- *Coryphaenoides bipartitus* STINTON 1962. Cannot be evaluated on the basis of the iconography.
- *Coryphaenoides karaginisensis* GRETSHINA 1973.
- T - *Otolithus (Cottidarum) degrangei* PRIEM 1914 = rejected species (based on a strongly eroded *Sphyaena*-otolith).
- *Cottidarum impolitus* SCHWARZHANS 1980? = «genus *Cottoideorum*» *impolitus*.
- *Otolithus (Cottidarum) jizodoensis* AOKI 1971. Cannot be evaluated on the basis of the iconography.
- *Otol. (Cottidarum) modestus* SMIGIELSKA 1973 = doubtful species (based on an atypical juvenile).
- T - *O. (Cottidarum) sulcatoides* SCHUBERT 1906 = rejected species, see NOLF (1981).
- *Otolithus (Cottidarum) sulcatus* KOKEN 1888. Cannot be evaluated on the basis of the iconography.
- ? *Cottoideorum suspectus* SCHWARZHANS 1980. Cannot be evaluated on the basis of the iconography.
- *Otolithus germanicus* WEILER 1942 = *Saurida germanica*.
- *Otolithus (Cottus) menkrawitensis* POSTHUMUS 1929. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Cottus) otiakensis* FROST, 1828 = *Parapercis finlayi* FROST, 1924 (holotype refigured by SCHWARZHANS 1980).
- *Cottus parascorpius* LAFOND GRELLETY 1963 = doubtful species, see NOLF & STEURBAUT (1979, p. 17).
- *Otolithus (Crangidarum) calidus* AOKI 1968. Cannot be evaluated on the basis of the iconography.
- T - *Crenilabrus retusus* STINTON 1966 = rejected species (strongly eroded unique specimen).
- *O. (Crenilabrus) simplicissimus* SCHUBERT 1906 = rejected species, see NOLF, 1981.
- *Otolithus cristatus* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- *Otolithus curvisulcatus* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Cyclopterus) trifoliatus* FROST, 1933 = «genus *Melonidarum*» *latisulcatus* (FROST, 1933) (holotype refigured by SCHWARZHANS 1980).
- *Cynoglossus leuchsi* WEINFURTER 1952.
- *Cyprinodon dentifer* STINTON & KISSLING 1968 = «genus *Cyprinodontidarum*» *dentifer*.
- *Cyprinodon subtrigonus* STINTON & KISSLING 1968 = «genus *Cyprinodontidarum*» *subtrigonus*.
- T - «genus *Cyprinodontidarum*» *angulosus* STEURBAUT 1979.
- *Otol. (Cyprinodontidarum?) ellipticus* VON SALIS 1967 = *Channa elliptica*.
- T - «genus *Cyprinodontidarum*» *feistae* STEURBAUT 1980.
- T - *Otol. (Cyprinodontidarum) symmetricus* WEILER 1963 = «genus *Cyprinodontidarum*» *symmetricus*.
- T - «genus *Cyprinodontoides*» *labretensis* STEURBAUT 1979.
- T - «genus *Cyprinodontoides*» *obesus* STEURBAUT 1979.
- *Dactyloptena crenata* STINTON 1978 = doubtful species (two juvenile otoliths belonging certainly not to *Dactyloptena*).
- *Dactyloptena lobata* STINTON 1978 = doubtful species (based on a single, very juvenile otolith).
- *Dactyloptena orbicularis* STINTON 1978 = doubtful species (based on two very juvenile, eroded otoliths).
- *Dapalis antipodus* SCHWARZHANS 1980 = *Chanda antipoda*.
- *Dapalis bartensteini* MALZ 1978.
- *Dapalis carinatus* STINTON & KISSLING 1968.
- *Dapalis rectangularis* STINTON & FREI 1979.
- *Dapalis rhomboidalis* STINTON & KISSLING 1968.
- *Dapalis vectensis* STINTON 1978.
- *Decapterus constrictus* STINTON 1980. Cannot be evaluated on the basis of the iconography.
- T - *Dentex accentuatus* WEILER 1942 = probably an abnormal specimen of *Dentex nobilis* KOKEN 1891.
- *Otolithus (Dentex) balonggensis* VORSTMAN 1927. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Dentex) dubius* PRIEM 1906 = rejected species, see NOLF (1975, p. 206).
- *Otolithus (Dentex) incertus* POSTHUMUS 1929. Cannot be evaluated on the basis of the iconography.
- *Dentex kokeni* GAEMERS & VAN HINSBERGH 1978.
- T - *Otolithus (Dentex) latior* SCHUBERT 1906 = *Brachydeuterus latior*, see NOLF & STEURBAUT (1979, p. 8).
- *Dentex lozanoi* SANZ 1950 = doubtful species (based on slightly eroded juvenile specimens).



- *Otolithus (Dentex) nobilis* KOKEN 1891 = *Acropoma nobilis*, see NOLF 1977, p. 118.
- *Dentex nobilis miocenicus* WEILER 1942 = *Acropoma nobilis* (KOKEN 1891), see NOLF (1977, p. 53 and 118).
- T - *Dentex (Polysteganus) nolfi* STEURBAUT 1979 = *Acropoma nolfi*.
- *Otolithus (Dentex) ovatus* FROST 1934 = *Dentex (Cheimeirius) laekeniensis* VAN BENEDEN 1872, see TAVERNE & NOLF (1979, p. 145).
- *Otolithus (Dentex) pausramensis* SCHUBERT 1908 = rejected species, see NOLF (1981).
- T - *Dentex pentagonalis* STINTON 1957.
- T - *Otolithus (Dentex) pulcher* FROST 1934 = *Xenistius pulcher*, see NOLF & LAPIERRE (1979, p. 102).
- T - *Otolithus (Dentex) regularis* FROST 1934 = *Xenistius pulcher* (FROST 1934).
- *Dentex rotundus* JONET 1980 = doubtful species (based on strongly eroded types).
- T - *Otolithus (Dentex) speronatus* BASSOLI 1906 = *Brachydeuterus speronatus*.
- *Otolithus (Dentex) subnobilis* SCHUBERT 1906 = rejected species, see NOLF 1981.
- *Dentex tardinensis* LERICHE 1908 = *Pterothrissus tardinensis*.
- T - *Dermatopsis astrictus* STINTON 1977 = «genus? *Dinematichthyinorum*» *astrictus*, see NOLF (1980, p. 107).
- *Diaphus altus* SCHWARZHANS 1980.
- *Diaphus angulatus* OHE & ARAKI 1973 = doubtful species (based on a unique incomplete specimen).
- T - *Diaphus cahuzaci* STEURBAUT 1979.
- *Diaphus crassus* SCHWARZHANS 1979.
- *Diaphus curvatus* SCHWARZHANS 1980.
- *Diaphus hataii* OHE & ARAKI 1973.
- *Diaphus italicus* ANFOSSI & MOSNA 1971.
- T - *Diaphus poignantae* STEURBAUT 1979.
- T - *Diaphus praerafinisquii* WEILER 1971 = doubtful species (unique juvenile specimen).
- *Diaphus pseudopulcher* SCHWARZHANS 1980 = a nominal valid species, but additional material may reveal that the unique specimen represents an abnormal otolith.
- ? *Dibranchus geniculatus* SCHWARZHANS 1980 = a nominal valid species, but based on a unique juvenile specimen, lacking true diagnostic features.
- *Otolithus (Diaphus) quadratus* AOKI & BABA 1980 = *Diaphus* aff. *theta* EIGENMANN & EIGENMANN 1890.
- T - *Dinematichthys argutus* STINTON 1966 = *Oligopus argutus*, see NOLF (1980, p. 107).
- T - *Dinematichthys brevisulcus* STINTON 1977 = «genus *Neobythitiorum*» *subregularis* (SCHUBERT 1916) see NOLF (1980, p. 107).
- T - *Diplacanthopoma tortonesei* NOLF 1977.
- *Diplectrum diutinum* STINTON 1980. Cannot be evaluated on the basis of the iconography.
- T - *Diplodus karrerae* NOLF & STEURBAUT 1979.
- T - *Diplodus racheboeufi* LANCKNEUS & NOLF 1979.
- T - *Diplomystes rudis* STINTON 1966 = doubtful species (based on a unique juvenile utricular otolith).
- T - *Dipulus mediterraneus* NOLF & CAPPETTA 1980.
- T - *Otolithus (Ditrema) sheppeyensis* FROST 1934 = doubtful species (eroded holotype with very generalized perciform morphology).
- *Dussumieria amussa* STINTON 1977 = doubtful species (unique broken specimen).
- T - *Echelus contractus* STINTON 1975.
- T - *Echelus crenulatus* STINTON 1975 = doubtful specimen (atypical juvenile holotype).
- T - *Echiodon heinzlini* HUYGHEBAERT & NOLF 1979.
- *Egregioberyx erectus* SCHWARZHANS 1980 = *Monocentris erectus*.
- *Electrona anfossimosnai* SCHWARZHANS 1979 = *Electrona risso* (COCCO 1829).
- *Electrona keyesi* SCHWARZHANS 1980.
- T - *Otol. (Elopoidarum?) ellipticus* WEILER in MARTIN & WEILER (1954) = doubtful species (eroded, probably juvenile holotype).
- T - *Otol. (Elopoidarum?) postconvexus* WEILER in MARTIN & WEILER (1954) = doubtful species.
- T - *Otol. (Elopoidarum?) vicinus* WEILER in MARTIN & WEILER 1954 = doubtful species (unique specimen with very generalized morphology).
- T - *Otolithus (Elops) eocenicus* FROST 1933 = «genus *Synodontidarum*» *davisi* (FROST 1925).
- *Otolithus (Elops) miocenicus* FROST 1924. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Elops) rectus* FROST 1933 = *Saurida recta*, see NOLF & CAPPETTA (1976, p. 256).
- T - *Otolithus (Elops) recurvus* FROST 1931 = «genus *Elopiformorum*» *recurvus*.
- T - *Elops undulatus* STINTON 1966.
- T - *Embiotoca conjugens* STINTON 1966 = rejected species (strongly eroded unique specimen).
- T - *Embiotoca? tenuis* STINTON 1965 = doubtful species (unique incomplete specimen).
- *Encheliophis (Jordanicus) extensus* STINTON 1962 = *Carapus extensus*, see NOLF 1980, p. 109.
- T - *Encheliophis triangularis* STINTON 1977 = rejected species, see NOLF (1980, p. 108).
- *Otolithus (Engraulidarum) erectus* FROST 1925. Cannot be evaluated on the basis of the iconography.
- T - *Enophrys euglyphus* STINTON 1966 = *Antennarius euglyphus*.
- *EOalbulula meridiana* FRIZZELL 1965 = «genus *Albulidarum*» *meridiana*.
- *Eosolea claibornensis* DANTE & FRIZZELL in FRIZZELL & DANTE (1965). Cannot be evaluated on the basis of the iconography (holotype not figured; paratypes are eroded heterenchelyid otoliths).
- *Eosolea texana* DANTE & FRIZZELL in FRIZZELL & DANTE (1965) = «genus *Heterenchelyidarum*» *texana*.
- *Ephippus elegans* STINTON 1966 = doubtful species (unique specimen is lost and the published iconography does not allow interpretation).
- *Epinephelus constrictus* STINTON 1978 = doubtful species (incomplete eroded holotype).
- *Epinephelus exacutus* STINTON 1978 = doubtful species (unique eroded specimen).
- *Epinephelus nodosus* STINTON 1978 = rejected species (unique incomplete juvenile specimen).
- T - *Epinephelus ovalis* STINTON 1957 = rejected species (strongly eroded holotype).
- *Epinephelus plicatus* STINTON 1978.
- T - *Epinephelus postangulatus* NOLF 1973.
- *Otolithus (Eques) gatunensis* SCHUBERT 1909 = *Larimus breviceps* CUVIER 1830.
- *Etrumeus undatus* STINTON 1977.
- T - *Eucinostomus irregularis* STINTON 1980 = doubtful species.
- *Eucitharus balearicus* BAUZA RULLAN 1955 = *Citharus* aff. *macrolepidotus* (BLOCH 1787).
- *Eucitharus belgicus* GAEMERS 1972 = *Citharus belgicus*, see NOLF (1977, p. 60).
- T - *Eucitharus circularis* STINTON 1966 = *Citharus circularis*.
- *Eucitharus lusitanicus* JONET 1973 = *Citharus lusitanicus*.
- *Eucitharus miocenicus* WEILER 1942 = *Citharus miocenicus*, see NOLF (1977, p. 60).
- *Euclichthys eocenicus* SCHWARZHANS 1980.
- T - *Exallias vectensis* NOLF 1973.
- *Otolithus (Fierasfer?) boratschensis* SCHUBERT 1906 = «genus aff. *Dermatopsis*» *boratschensis*, see NOLF (1980, p. 108).
- *Fierasfer novus* SULC 1932 = «genus *Carapinarum*» *novus*.
- *Otolithus (Fierasfer) nuntius* KOKEN 1891 = *Echiodon nuntius*, see NOLF (1980, p. 109).
- *Otolithus (Fierasfer) posterus* KOKEN 1891 = *Echiodon posterus*, see NOLF (1980, p. 109).
- *Otolithus (Fierasfer) pussillus* POSTHUMUS 1929 = doubtful species, see NOLF (1980, p. 109).
- *Otolithus franconicus* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Gadi) faba* KOKEN 1884 = «genus *Neobythitarum*» *faba* (KOKEN 1884).



- T - *Otolithus (Gadi) tuberculatus* KOKEN 1884 = *Raniceps tuberculatus*.  
 - *Gadichthys altus* GAEMERS & VAN HINSBERGH 1978 = *Gadiculus altus*.
- T - *Gadichthys benedeni verticalis* GAEMERS & SCHWARZHANS 1973 = *Gadiculus verticalis*, see NOLF (1978 b, p. 523).  
 - *Gadichthys undosus* GAEMERS 1973 = *Gadiculus undosus*.  
 - *Gadiculus (Gadiculus) antipodus* SCHWARZHANS 1980.
- T - *Gadiculus deurnensis* NOLF 1977.  
 - *Otolithus (Gadidarum) acutangulus* KOKEN 1891 = rejected species, see NOLF (1977, p. 34).  
 - *Ot. (Gadidarum) anglicus corallinensis* SHEPHERD, 1916. Cannot be evaluated on the basis of the iconography.  
 - *Otolithus (Gadidarum) difformis* KOKEN 1884 = *Hoplobrotula difformis*, see NOLF (1980, p. 110).
- T - *Otolithus (Gadidarum) elegans* KOKEN 1884 = *Trisopterus elegans*, see NOLF (1977 a, p. 28).  
 - *Otolithus (Gadidarum) elevatus* KOKEN 1888 = «genus aff. *Siremba*» *elevatus* see NOLF (1980, p. 110).
- T - «genus *Gadidarum*» *ensifformis* STEURBAUT & HERMAN 1978.
- T - *Otolithus (Gadidarum) insectus* WEILER 1943 = *Gadiculus insectus*.  
 - *O. (Gadidarum) insueteus* ROEDEL 1930. Cannot be evaluated on the basis of the iconography.  
 - *Gadidarum laevigatum* STINTON 1957 = doubtful species (?eroded juvenile of *Melanonus*).
- T - *Otolithus (Gadidarum) latisulcatus* KOKEN 1884 = *Raniceps latisulcatus*.
- T - «genus *Gadidarum*» *lerichei* NOLF 1977.
- T - *Otolithus (Gadidarum) meyeri* KOKEN 1888 = «genus *Neobythitinarum*» *meyeri*, see NOLF (1980, p. 111).
- T - *Otolithus (Gadidarum) minusculus* SCHUBERT 1906 = rejected species, see NOLF (1981).
- T - *Otolithus (Gadidarum) moloti* PRIEM 1908. Cannot be evaluated on the basis of the iconography.  
 - *Otolithus (Gadidarum) mucronatus* KOKEN 1888 = «genus *Lepophidiinorum*» *mucronatus*, see NOLF (1980, p. 111).
- T - *Otolithus (Gadidarum) peyroti* PRIEM, 1914 = *Pterothrissus umbonatus* (KOKEN, 1884).
- T - *Otolithus (Gadidarum) planus* KOKEN 1884 = *Raniceps tuberculatus* (KOKEN 1884).  
 - *Otolithus (Gadidarum) ponderosus* KOKEN 1885 = «genus *Gadidarum*» *ponderosus*.  
 - *Ot. (Gadidarum) ponticum* WEINFURTER 1954. Cannot be evaluated on the basis of the iconography.  
 - *Ot. (Gadidarum) premerlangus* SHEPHERD 1916. Cannot be evaluated on the basis of the iconography.  
 - *Ot. (Gadidarum) preminutus* SHEPHERD 1916. Cannot be evaluated on the basis of the iconography.  
 - *Ot. (Gadidarum) previrens* SHEPHERD 1916 = *Merluccius shepherdii* SCHUBERT, 1916.  
 - *Ot. (Gadidarum) pseudoaeglefinus* SHEPHERD 1916 = *Merluccius shepherdii* SCHUBERT, 1916.  
 - *Otolithus (Gadidarum) rugiae* VOIGT 1928 = rejected species (strongly eroded unique specimen).  
 - *Otolithus (Gadidarum) stettiniensis* RICHTER 1928. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Gadus) anglicus* KOKEN 1891 = *Trisopterus luscus* (LINNAEUS 1758).  
 - *Otolithus (Gadus) bassanii* PIERAGNOLI 1919 = *Coelorhynchus bassanii*.
- T - *Gadus benedeni* LERICHE 1926 = *Gadiculus benedeni*, see NOLF (1978 a, p. 522).  
 - *Gadus chikagawaensis* HATAI & KOTAKA 1963. Cannot be evaluated on the basis of the iconography.  
 - *Otolithus (Gadus) communis* PROCHAZKA 1894? = *Gadiculus argenteus* GUICHENOT 1830.  
 - *Otolithus (Gadus) destefanii* PIERAGNOLI 1919. Cannot be evaluated on the basis of the iconography.  
 - *Otolithus (Gadus) elegans laevis* PRIEM 1914 = *Trachinus* aff. *armatus* (BLEEKER 1863).  
 - *Otolithus (Gadus) elegans sculpta* KOKEN 1891 = *Trisopterus sculptus*, see NOLF 1977, p. 30.
- T - *Otolithus (Gadus) eocenicus* FROST 1931 = «genus *Gadidarum*» *eocenicus*.
- T - *Otolithus (Gadus) eppi* FROST 1931 = rejected species (strongly eroded holotype).  
 - *Gadus macrocephalus oshimai* HATAI 1965 = doubtful species (unique eroded incomplete specimen).  
 - *Gadus masudae* HATAI & KOTAKA 1964. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Gadus) minusculoides* SCHUBERT 1912 = rejected species, see NOLF (1981).
- T - *Gadus parallelus* GAEMERS 1976.
- T - *Gadus pseudoaeglefinus* NEWTON 1891 = *Merlangius pseudoaeglefinus*, see NOLF (1978 b, p. 524).
- T - *Otolithus (Gadus) rectus* FROST 1934 = rejected species, see NOLF (1980, p. 111).  
 - *Gadus refertus* STINTON 1958 = «genus *Sirembinorum*» *refertus*, see NOLF (1980), p. 111).  
 - *Gadus robustus* ROBBA 1970 = *Coelorhynchus robustus*.
- T - *Gadus schuberti* SMIGIELSKA 1966 = *Trisopterus sculptus* (KOKEN 1891).
- T - *Otolithus (Gadus) simplex* KOKEN 1891 = *Phycis simplex*, see NOLF (1977, p. 27).  
 - *Otolithus (Gadus) spectabilis* KOKEN 1891 = *Trisopterus luscus spectabilis*, see NOLF (1977, p. 30).
- T - *Otolithus (Gadus) subnotus* FROST 1934 = «genus *Gadidarum*» *eocenicus* FROST 1931.  
 - *Otolithus (Gadus) tenuis* KOKEN 1891 = *Phycis tenuis*.
- T - *Gadus? thanetensis* STINTON 1965 ? = «genus *Gadidarum*» *ornatus* (STINTON 1965), see NOLF (1978 a, p. 225).
- T - *Gadus varians* STINTON 1977 = rejected species (unique eroded incomplete specimen).  
 - *Otolithus (Gadus) venustus* KOKEN 1891 = *Gadiculus venustus*.
- T - *Gadus wansinensis* CASIER 1943 = rejected species, see NOLF (1978 a, p. 228).
- T - *Gaidropsarus acuticaudatus* GAEMERS 1973.  
 - *Otolithus* (an *Ganoidarum*) *dentatus* LIEBUS 1927 = *Argyropelecus dentatus*.  
 - *Otolithus* (an *Ganoidarum*) *obovatus* LIEBUS 1927. Cannot be evaluated on the basis of the iconography.  
 - *Otolithus* (an *Ganoidarum*) *ovatus?* = *Argyropelecus dentatus* (LIEBUS 1927).
- T - «genus aff. *Gazza*» *pentagonalis* NOLF & LAPIERRE 1979.  
 - *Genartina texana* DANTE & FRIZZELL in FRIZZELL & DANTE (1965). Cannot be evaluated on the basis of the iconography.
- T - *Genypterus angustus* STINTON 1966 = rejected species, see NOLF (1980, p. 112).  
 - *Genypterus elongatus* SCHWARZHANS 1980.
- T - *Genypterus rectangularis* NOLF 1973 = «genus *Neobythitinarum*» *rectangularis* see NOLF (1980, p. 112).  
 - *Gephyroberyx hexagonalis* STINTON 1978 = rejected species (eroded holotype); in any case the name is preoccupied by *Gephyroberyx hexagonalis* (LERICHE 1905).  
 - *Gerres latidens* STINTON 1980.  
 - *Gerres plicatilis* STINTON 1980 = «genus aff. *Gazza*» *pentagonalis* NOLF & LAPIERRE 1979.  
 - *Glyptorhynchus triangulus* ROBBA 1970 = *Melanonus triangulus*.  
 - *Gnathophis flemingi* SCHWARZHANS 1980.
- T - *Gnathophis kanazawai* NOLF & MARTINELL 1980.
- T - *Gnathophis obesus* STINTON 1975 = rejected species (strongly eroded holotype).
- T - (*Gobiidarum*) *bicornutus* GAEMERS & SCHWARZHANS 1973 = doubtful species, see NOLF (1978, p. 532).  
 - *Otolithus (Gobiidarum) dispar* KOKEN 1891 = *Ogilbia dispar*, see NOLF (1980, p. 112).
- T - (*Gobiidarum*) *dorsoconcauus* GAEMERS & SCHWARZHANS 1973.  
 - «genus *Gobiidarum*» *hemmoorensis* WEILER 1942.  
 - (*Gobiidarum*) *modestus* GAEMERS & SCHWARZHANS 1973.  
 - *Otolithus (Gobiidarum) njalindoenggensis* VORSTMAN 1927. Cannot be evaluated on the basis of the iconography.  
 - (*Gobiidarum*) *rectangularis* GAEMERS & SCHWARZHANS 1973 = doubtful species, see NOLF (1978 b, p. 532).



- *Otolithus (Gobiidarum) talahabensis* VORSTMAN 1927 = «genus *Gobiidarum*» *talahabensis*.
- T - *Gobius altus* WEILER 1963.
- *Gobius arenosus* AOKI 1971. Nominal valid but probably synonymous with a recent species.
- *Gobius atlanticus* WEILER 1959 = doubtful species (unique juvenile specimen).
- *Otolithus (Gobius) bohemicus* PROCHAZKA 1900. Cannot be evaluated on the basis of the iconography.
- *Gobius captiosus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- *Gobius carinthiacus* WEINFURTER 1952 = doubtful species (based on very juvenile specimens).
- *Gobius copiosus* AOKI 1968 = nominal valid but probably synonymous with a recent species.
- T - *Gobius crenelatus* WEILER 1943 = «genus *Gobiidarum*» *crenelatus*.
- *Gobius dorsorostralis* WEINFURTER, 1954.
- *Gobius dorsorostralis sculpta* WEINFURTER 1954 = *Gobius dorsorostralis*.
- T - *Gobius dorsolobatus* WEILER 1943 = «genus *Gobiidarum*» *dorsolobatus*.
- *Otolithus (Gobius) elegans* PROCHAZKA 1900. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Gobius) francofurtanus* KOKEN 1891 = *Gobius francofurtanus*.
- *Otolithus (Gobius) frici* PROCHAZKA 1900. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Gobius) gatunensis* SCHUBERT 1909 = doubtful species, see NOLF (1981).
- *Gobius gibbosus* PANA 1977 = doubtful species (holotype cannot be judged on iconography; paratypes constitute a heterogeneous assemblage of species).
- *Gobius? gracilis* WEILER 1959 = doubtful species (unique juvenile specimen).
- T - *Gobius guerini* CHAINE & DUVERGIER 1931.
- *Gobius helvetiae* VON SALIS 1967 = doubtful species (based on juvenile otoliths).
- *Gobius imperfectus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- *Gobius ingens* AOKI 1968. Nominal valid but probably synonymous with a recent species.
- *Otolithus (Gobius) intimus* PROCHAZKA 1893. Cannot be evaluated on the basis of the iconography.
- *Gobius irregularis* STINTON 1979 = «genus *Gobiidarum*» *irregularis*.
- *Gobius laevis* WEILER 1942 = «genus aff. *Pomatoschistus*» *laevis*, see HUYGHEBAERT & NOLF (1979a, p. 80).
- *Otolithus (Gobius) lepidus* PROCHAZKA 1894. Cannot be evaluated on the basis of the iconography.
- *Gobius lobatus* STINTON 1962. Cannot be evaluated on the basis of the iconography.
- *Gobius longus* VON SALIS 1967.
- T - *Gobius moenianus* WEILER 1963.
- *Gobius noricus* WEINFURTER 1952 = doubtful species (based on juvenile specimens).
- *Gobius notoensis* AOKI (nominal valid, but probably synonymous with a recent species).
- *Otolithus (Gobius) obliquus* VORSTMAN 1927. Cannot be evaluated on the basis of the iconography.
- *O. (Gobius) obliquus* FROST 1925.
- *Otolithus (Gobius) orientalis* VORSTMAN 1927. Cannot be evaluated on the basis of the iconography.
- T - *Gobius ornatus* GAEMERS & SCHWARZHANS 1973 = doubtful species, see NOLF (1978b, p. 532).
- *Otolithus (Gobius) praeclarus* PROCHAZKA 1893. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Gobius) praetiosus* PROCHAZKA 1893. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Gobius) preangerensis* VORSTMAN 1927.
- *Gobius puellaris* AOKI 1968. Nominal valid, but probably synonymous with a recent species.
- *Gobius rarus* AOKI 1971 = *Chaeturichthys hexanema* BLEEKER, 1853.
- T - *Gobius rostratus* WEILER 1963.
- T - *Otolithus (Gobius) rotundatus* PRIEM 1914 = *Solea rotunda* (fig. 66 of PRIEM = lectotype).
- *Gobius rotundus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Gobius) rudolcensis* PROCHAZKA 1900. Cannot be evaluated on the basis of the iconography.
- *Gobius rusticus* AOKI 1967.
- T - *Gobius schadi* WEILER 1963.
- *Gobius sectus* STINTON & KISSLING 1968.
- *Gobius tankilensis* VORSTMAN 1927 = «genus *Gobiidarum*» *tankilensis*.
- T - *Gobius telleri* SCHUBERT 1906 = «genus *Gobiidarum*» *telleri*, see NOLF (1981).
- T - *Otolithus tenuis* WEILER 1943 = doubtful species (holotype is an atypical juvenile otolith).
- T - *Gobius triangularis* WEILER 1943 = «genus *Gobiidarum*» *triangularis*.
- *Gobius truncatus* SCHWARZHANS 1979.
- T - *Otolithus (Gobius) vicinalis* KOKEN 1891 = *Gobius vicinalis*.
- *Gobius urbanus* AOKI 1968. Nominal valid but probably synonymous with a recent species.
- *Gobius weileri* BAUZA RULLAN 1955 = «genus *Gobiidarum*» *weileri*.
- *Otolithus (Gonostoma?) angustus* POSTHUMUS 1923 = doubtful species (eroded holotype).
- *Gonostoma biarrizense* SULC 1932 = *Vinciguerria biarrizensis*.
- T - *Otolithus (Gonostoma) subdenudatus* SCHUBERT 1908 = rejected species, see NOLF, 1981.
- *Gramma subconvexa* STINTON 1980. Cannot be evaluated on the basis of the iconography.
- *Gramma tenuis* STINTON 1980 = doubtful species.
- *Otolithus guttaeformis* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- *Gymnoscopelus fitchi* SCHWARZHANS 1979.
- *Gymnothorax diagonalis* STINTON & NOLF 1970 = «genus *Congridarum*» *diagonalis*.
- *Gyrosteus subdeltoideus* STINTON & TORRENS 1978 = «genus *Chondrosteiformorum*» *subdeltoideus*.
- T - *Haliophis colletti* NOLF & LAPIERRE 1979.
- *Harengula regularis* STINTON 1977 = doubtful species (unique juvenile specimen).
- *Harengula similis* STINTON 1977.
- *Hemerocoetes minutus* SCHWARZHANS 1980.
- *Otolithus (Hemiramphidarum) bulunganensis* POSTHUMUS 1929. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Hemiramphus) italicus* BASSOLI 1906 = *Epigonus italicus*.
- *Hemiramphus mosaicus* STINTON 1978 = doubtful species (unique eroded specimen, probably not a hemiramphid).
- *Hemiramphus ovalis* STINTON 1977.
- *Hemiramphus subcircularis* STINTON 1978.
- *Hephtocara pauper* SCHWARZHANS 1979 = «genus *Bythitinarum*» *pauper*, see NOLF (1980, p. 112).
- *Heterenchelys crassus* STINTON 1957 = doubtful species (unique juvenile specimen).
- *Heterenchelys regularis* STINTON 1958 ? = *Gnathophis regularis*.
- T - *Heterotis acutangulus* STINTON 1977 = «genus *Osteoglossidarum*» *acutangulus*, see NOLF & CAPPETTA (1976, p. 254).
- *Holocentridarum palasulcatus* SCHWARZHANS 1980.
- *Holocentridarum ventriosus* SCHWARZHANS 1980.
- *Holocentrus extenuatus* STINTON 1978 = «genus *Myripristinarum*» *extenuatus* (STINTON 1978).
- *Holocentrus? weileri* ROBBA 1970.
- T - *Hoplobrotula greenwoodi* NOLF 1980.
- T - *Hoplobrotula robusta* NOLF 1980.
- T - *Hoplobrotula lerichei* STINTON & NOLF 1970 = *Ampheristus lerichei*, see NOLF (1980, p. 113).
- T - *Hoplobrotula panda* STINTON 1977 = «genus *Sirembinorum*» *spinus* (NOLF & CAPPETTA 1976), see NOLF (1980, p. 114).
- *Hoplobrotula protensa* STINTON 1977 = *Ampheristus protensus*, see NOLF (1980, p. 113).



- T - *Hoplobrotula spissa* STINTON 1977 = *Ampheristus waltoni* (SCHUBERT 1916), see NOLF (1980, p. 114).
- T - ?*Hoplobrotula sulcata* NOLF 1973 = *Ogilbia sulcata*, see NOLF 1980, p. 115.
- T - *Hoplobrotula undulata* STINTON 1977 = «genus *Sirembinorum*» *undulatus*, see NOLF (1980, p. 115).
- *Otolithus (Hoplostethus) bamergi* PRIEM 1913. The holotype of this species seems to be lost, but PRIEM's figure suggest an old individual of «genus aff. *Osmerus*» *hampshirensis* (SCHUBERT 1916), a frequently used name. The question if *O. (H.) bamergi* may be considered as a nomen oblitum (art. 23b of the international code of zoological nomenclature) should be submitted to the international commission of zoological nomenclature.
- T - *Hoplostethus densus* STINTON 1978.
- *Hoplostethus hexagonalis* LERICHE 1905 = *Gephyroberyx hexagonalis*.
- *Hoplostethus ingens granatensis* MELENDES, 1948. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Hoplostethus) lawleyi* KOKEN 1891 = *Hoplostethus lawleyi*.
- T - *Otolithus (Hoplostethus) levis* SCHUBERT 1905 = rejected species, see NOLF (1981).
- T - *Otolithus (Hoplostethus) magnus* PIERAGNOLI 1919 = *Dentex gregarius* (KOKEN 1891).
- *Otolithus (Hoplostethus) nettelbladi* KOKEN 1891. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Hoplostethus) orbicularis* BASSOLI 1906 = *Hoplostethus mediterraneus* CUVIER 1829.
- T - *Otolithus (Hoplostethus) orbicularis biexcisa* BASSOLI 1906 = *Hoplostethus mediterraneus* CUVIER 1829.
- T - *Otolithus (Hoplostethus) ostiolatus* KOKEN 1891 = *Gephyroberyx ostiolatus*.
- T - *Otolithus (Hoplostethus) perforatus* BASSOLI 1906 = *Hoplostethus mediterraneus* CUVIER 1829.
- T - *Otolithus (Hoplostethus) pisanus* KOKEN 1891 = *Hoplostethus pisanus*.
- T - *Otolithus (Hoplostethus) praemediterraneus* SCHUBERT 1905 = *Hoplostethus mediterraneus* CUVIER 1829, see NOLF (1981).
- T - *Hygophum agatense* ROBBA 1970.
- T - *Hygophum agrigentensis* SCHWARZHANS 1979 = *Hygophum agrigentense*.
- T - *Hygophum?* *germanicum* HEINRICH 1969.
- T - *Hygophum?* *orcianensis* SCHWARZHANS 1979 = *Hygophum agrigentense* SCHWARZHANS 1979.
- T - *Hygophum rotundum* OHE & ARAKI 1973 = rejected species (based on eroded, incomplete types).
- *Hygophus intermedius* WEILER 1959 = *Hygophum intermedium*.
- *Hygophus intermedius derthonensis* ANFOSSI & MOSNA 1969 = *Hygophum derthonense*.
- T - *Otolithus (Hymenocephalus) aquitanicus* PRIEM 1914 = «genus *Atherinidarum*» *aquitanicus*.
- *Otolithus (Hymenocephalus) asymmetricus* POSTHUMUS 1923 = *Gadiculus labiatus* (SCHUBERT 1905), see NOLF (1977, p. 38), HUYGHEBAERT & NOLF (1979a, p. 72).
- T - *Otolithus (Hymenocephalus?) austriacus* SCHUBERT 1905? = *Trachyrhynchus trachyrhynchus* (Risso 1810).
- T - *Otolithus (Hymenocephalus) brinki* POSTHUMUS 1923 = *Gadiculus labiatus* (SCHUBERT 1905), see NOLF (1977, p. 38), HUYGHEBAERT & NOLF (1979a, p. 72).
- *Otolithus (Hymenocephalus) dubius* POSTHUMUS 1923 = *Gadiculus labiatus* (SCHUBERT 1905), see NOLF (1977, p. 38), HUYGHEBAERT & NOLF (1979a, p. 72).
- T - *Hymenocephalus fimbriatus* STINTON 1977 = rejected species, see NOLF (1978), p. 225).
- T - *Otolithus (Hymenocephalus) globosus* POSTHUMUS 1923 = *Gadiculus labiatus* (SCHUBERT 1905), see NOLF (1977, p. 38), HUYGHEBAERT & NOLF (1979a, p. 72).
- T - *Otolithus (Hymenocephalus?) labiatus* SCHUBERT 1905 = *Gadiculus labiatus*, see HUYGHEBAERT & NOLF (1979a, p. 72) [fig. 32 of SCHUBERT = LECTOTYPE].
- *Otolithus (Hymenocephalus) medius* POSTHUMUS 1923 = *Gadiculus labiatus* (SCHUBERT 1905), see NOLF (1977, p. 38), HUYGHEBAERT & NOLF (1979a, p. 72).
- T - *Otolithus (Hymenocephalus) ovalis* POSTHUMUS 1923 = *Gadiculus labiatus* (SCHUBERT 1905), see NOLF (1977, p. 38), HUYGHEBAERT & NOLF (1979a, p. 72).
- *Hypomesus glaber* STINTON 1963. Cannot be evaluated on the basis of the iconography.
- T - *Hypomesus pennatus* STINTON 1966 = *Argentina pennata*.
- *Hyporhamphus baluki* SMIGIELSKA 1979 = «genus *Hemirampidarum*» *baluki*.
- T - *Ichthyococcus subregularis* STINTON 1977 = rejected species (I even doubt if the eroded unique specimen is really an otolith).
- T - *Ilisha lerichei* NOLF & CAPPETTA 1980.
- T - *Ilisha nijsseni* NOLF & STEURBAUT 1979.
- T - *Ot. (incertae sedis) acutirostrum* NOLF 1973 = «genus aff. *Velifer*» *acutirostrum*, see NOLF & LAPIERRE (1979, p. 94).
- T - *Otol. (incertae sedis) altorostratus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (incertae sedis) altus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otolithus (incertae sedis) austriacus* SCHUBERT 1912 = rejected species, see NOLF 1981.
- *Otolithus (incertae sedis) bellus* PROCHAZKA 1893 = *Pterothrissus umbonatus* (KOKEN 1884).
- *Otolithus (incertae sedis) bifurcatus* STRACHIMIROV 1972. Cannot be evaluated on the basis of the iconography.
- *Otolithum (incertae sedis) bohmi* KOKEN 1891. Cannot be evaluated on the basis of the iconography.
- *Otolithus (incertae sedis) borneensis* POSTHUMUS 1929. Cannot be evaluated on the basis of the iconography.
- T - *Otol. (incertae sedis) brandi* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (incertae sedis) brevis* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otolithus (incertae sedis) conchaeformis* KOKEN 1885 = *Pterothrissus conchaeformis*.
- T - *Otol. (incertae sedis) cornuatus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- *Otolithus (incertae sedis) crassirostris* RZEHAk 1893 = *Dapalis crassirostris*.
- T - *Otolithus (incertae sedis) crassus* KOKEN 1884 = *Arius crassus*.
- T - *Otol. (incertae sedis) crassus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (incertae sedis) crassus* WEILER 1963 = «genus *Umbriidarum*» *crassus*.
- T - *Otol. (incertae sedis) crenulatus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- *Otolithus (incertae sedis) curvirostris* RZEHAk 1893 = *Dapalis curvirostris*.
- *Otolithus (incertae sedis) curvatus* FROST 1926. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (incertae sedis) densus* FROST 1934 = *Cepola densa*.
- *Otolithus (incertae sedis) depressus* FROST 1926. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (incertae sedis) dorsalis* PRIEM, 1914 = *Albula dorsalis*.
- *Otolithus (incertae sedis) elegans* FROST 1926. Cannot be evaluated on the basis of the iconography.
- *O. (incertae sedis) erhardvoighti* ROEDEL 1930? = *Pterothrissus conchaeformis* (KOKEN 1895).
- *Otolithus (incertae sedis) fallax* KOKEN 1891 = *Hildebrandia fallax*.
- *Otolithus (incertae sedis) formosus* PROCHAZKA 1900. Cannot be evaluated on the basis of the iconography.
- *Otol. (incertae sedis) germanicus* WEILER in NETH & WEILER (1953). Cannot be evaluated on the basis of the iconography.



- T - *Otolithus* (incertae sedis) *hampshirensis* SCHUBERT 1916 = «genus aff. *Osmerus*» *hampshirensis*, see NOLF & LAPIERRE (1979, p. 85).
- *Otolithus* (incertae sedis) *hartwellensis* FROST 1926. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus* (incertae sedis) *hassovicus* KOKEN 1891 = *Sillago hassovicus*.
- T - *Otol.* (incertae sedis) *inaequalis* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- *Otol.* (incertae sedis) *irregularis* WEILER in NETH & WEILER (1953). Cannot be evaluated on the basis of the iconography.
- *Otolithus* (incertae sedis) *kakioensis* AOKI & BABA 1980 = *Parascombrops kakioensis*.
- T - *Otolithus* (incertae sedis) *lapugyensis* SCHUBERT 1912 = «genus *Chandidarum*» *lapugyensis*, see NOLF 1981).
- *Otolithus* (incertae sedis) *latus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- *Otolithus* (incertae sedis) *lovisatoi* SCHUBERT 1912 = doubtful species, see NOLF 1981).
- *Otolithus* (incertae sedis) *lunaburgensis* KOKEN 1891 = *Pterothrissus umbonatus* (KOKEN 1884).
- *Otol.* (incertae sedis) *malloides* WEILER in NETH & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol.* (incertae sedis) *malmensis* WEILER in MARTIN & WEILER (1957) = doubtful species, see preliminary remarks to this list.
- T - *Otolithus* (incertae sedis) *mariae* SCHUBERT 1908 = rejected species, see NOLF (1981, p. 150).
- T - *Otolithus* (incertae sedis) *martillacensis* PRIEM 1914 = rejected species (strongly eroded holotype).
- *Otolithus* (incertae sedis) *minimus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus* (incertae sedis) *minor* KOKEN 1884 = *Pterothrissus umbonatus* (KOKEN 1884).
- T - t - *Otolithus* (incertae sedis) *minoriformis* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- *Otolithus* (incertae sedis) *modicus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- *Ot.* (incertae sedis) *nucleus* WEINFURTER 1952 = «genus? *Siluriformorum*» *nucleus*.
- T - *Otol.* (incertae sedis) *nudus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- *Otolithus* (incertae sedis) *obliquesulcatus* VOIGT 1926 = rejected species (strongly eroded holotype).
- *Otolithus* (incertae sedis) *oblongus* FROST 1926. Cannot be evaluated on the basis of the iconography.
- *Otol.* (incertae sedis) *ornatus* WEILER in NETH & WEILER (1953). Cannot be evaluated on the basis of the iconography.
- T - *Otol.* (incertae sedis) *ostialis* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- *Otolithus* (incertae sedis) *peelensis* POSTHUMUS 1923. Cannot be evaluated on the basis of the iconography.
- T - *Otol.* (incertae sedis) *placidus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- *Otolithus* (incertae sedis) *pockrandti* WEILER 1972 = «genus *Teleosteorum*» *pockrandti*.
- *Otolithus* (incertae sedis) *robustus* KOKEN 1891 = *Pterothrissus umbonatus* (KOKEN 1884).
- *Otolithus* (incertae sedis) *robustus elongata* WEILER 1942 = *Pterothrissus umbonatus* (KOKEN 1884).
- *Otolithus* (incertae sedis) *rostratus* WEILER 1972 = «genus *Teleosteorum*» *rostratus*.
- T - *Otol.* (incertae sedis) *rotundatus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- *Otolithus* (incertae sedis) *rotundus* FROST 1926. Cannot be evaluated on the basis of the iconography.
- *Ot.* (incertae sedis) *rzhaki* BRZOBOHATY 1969 = *Channa rzhaki*.
- *Otolithus* (incertae sedis) *sangkalirensis* POSTHUMUS 1929. Cannot be evaluated on the basis of the iconography («a myripristid»).
- *Otolithus* (incertae sedis) *sarmaticus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- *Otolithus* (incertae sedis) *solitarius* RZEHAK 1893. Cannot be evaluated on the basis of the iconography.
- incertae sedis *spinosis* SCHWARZHANS 1977 = «genus *Pleuronectoideorum*» *spinosis*.
- *Otolithus* (incertae sedis) *subsolutarius* POSTHUMUS 1926. Cannot be evaluated on the basis of the iconography.
- *Otolithus* (incertae sedis) *tarhanicus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- *Otolithus* (incertae sedis) *tenuicostatus* WEILER in NETH & WEILER (1953). Cannot be evaluated on the basis of the iconography.
- incertae sedis *tenuicauda* SCHWARZHANS 1974 = *Kuhlia tenuicauda*.
- *Otol.* (incertae sedis) *thoerensis* WEILER in NETH & WEILER (1953). Cannot be evaluated on the basis of the iconography.
- *Otolithus* (incertae sedis) *triangulus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- *Ot.* (incertae sedis) *triquetrus* BRZOBOHATY 1967 = «genus *Photichthyidarum*» *triquetrus*.
- T - *Otolithus* (incertae sedis) *umbonatus* KOKEN 1884 = *Pterothrissus umbonatus*.
- *Otolithus* (incertae sedis) *umbonatus rupeliensis* LERICHE 1910 = *Pterothrissus umbonatus*.
- T - *Otol.* (incertae sedis) *undulatus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- *Otolithus* (incertae sedis) *varnensis* STRACHIMIROV 1972. Cannot be evaluated on the basis of the iconography.
- *Otol.* (incertae sedis) *wealdensis* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol.* (incertae sedis) *weinbergeri* SIEBER & WEINFURTER 1967 = «genus? *Apogonidarum*» *weinbergeri*.
- *Ot.* (incertae sedis) *wetzeldorfensis* WEINFURTER 1952. Cannot be evaluated on the basis of the iconography; probably a flatfish.
- T - *Otol.* (incertae sedis) *wicheri* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- *Otolithus* (incertae sedis) *withersi* FROST 1926 = «genus *Teleosteorum*» *withersi*.
- *Otolithus* (incertae sedis) *circularis* VORSTMAN 1927 = *Stenatherina* aff. *temmincki* (BLEEKER 1853).
- *Isacia sylvestris* STINTON 1965.
- *Jefitchia copelandi* DANTE & FRIZZELL in FRIZZELL & DANTE (1965). Cannot be evaluated on the basis of the iconography (holotype not figured; two figured paratypes are different species).
- *Jefitchia spinosa* JONET 1973 = rejected species (based on juvenile atypical specimens).
- *Jordanicus exiguus* STINTON 1956 = *Carapus exiguus*, see NOLF (1980, p. 115).
- T - *Jordanicus lisus* NOLF 1973 = *Carapus lisus*, see NOLF (1980, p. 115).
- *Karrerichthys admirabilis* SCHWARZHANS 1980 = «genus *Melanonidarum*» *admirabilis*.
- *Otolithus kolbi* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- *Krebsiella aperta* SCHWARZHANS 1980 = «genus *Hemerocotinarum*» *apertus*.
- *Krebsiella diversa* SCHWARZHANS 1980 = «genus *Hemerocotinarum*» *diversus*.
- *Otolithus kremmeldorfensis* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- *Kuhlia delicatula* STINTON 1980 = *Kuhlia lepta* STINTON 1980.
- *Kuhlia inaequalis* STINTON 1980 = *Kuhlia cottreui* (PRIEM 1912).
- *Kuhlia lepta* STINTON 1980.
- *Kuhlia praeupestis* STINTON 1980.
- *Kuhlia profunda* STINTON 1980 = *Kuhlia lepta* STINTON 1980.



- T - *Otolithus (Labrax) lucidus* BASSOLI 1906 = «genus *Pomadasydarum*» *lucidus*, see NOLF & STEURBAUT (1979, p. 9).
- T - *Otolithus (Labrax?) neudorfensis* SCHUBERT, 1912 = rejected species, see NOLF (1981).
- *Labrax (Morone) serrata* WEINFURTER 1954 = doubtful species (based on an unique broken specimen).
  - *Lactarius amplus* POMEROL 1973.
  - *Lactarius tumulatus* STINTON 1958 = *Parascombrops tumulatus*.
- T - *Lagodon pectinoides* STINTON & NOLF 1970 = *Lithognathus pectinoides*.
- *Lampanyctus apenninicus* ANFOSSI & MOSNA 1971 = *Benthoosema* aff. *glaciale* (REINHARDT 1837).
  - *Lampanyctus kuboensis* OHE & ARAKI 1973 = *Notoscopelus kuboensis*.
  - *Lampanyctus serratus* STINTON 1957 = doubtful species (not identifiable juvenile *Diaphus* otoliths).
  - *Lampichthys mangapariensis* SCHWARZHANS 1980.
  - *Lates delicatulus* STINTON 1978 = doubtful species (unique eroded specimen).
- T - *Lates veneris* STINTON 1965 = «genus *Serranidarum*» *veneris*.
- T - *Latirhynchus grumosus* STINTON 1965 = «genus? *Gadidarum*» *ornatus* (STINTON 1965) see NOLF (1978, p. 225).
- T - «genus *Leiognathidarum*» *bercherensis* NOLF & LAPIERRE 1979.
- T - *Genus Leiognathidarum nolfi* VAN HINSBERGH 1980.
- T - *Lemkea aftonensis* STINTON 1975 = *Hildebrandia aftonensis*.
- *Lemkea glabra* STINTON 1975 = rejected species (strongly eroded unique specimen).
  - «Genus aff. *Lemkea*» *saubriguensis* STEURBAUT 1979 = *Gnathophis saubriguensis*.
  - *Lepidion tuberculatum* STINTON 1977 = doubtful species (eroded unique specimen of doubtful morphology).
  - *Lepidogobius bifidus* STINTON & KISSLING 1968 = doubtful species (unique eroded juvenile).
- T - *Lepidorhombus angulosus* NOLF 1977.
- T - *Lepidorhombus subtriangularis* HEINRICH 1970.
- T - «genus aff. *Lepidotrigla*» *postdorsalis* STEURBAUT 1979.
- T - «genus aff. *Lepidotrigla*» *ringelei* NOLF 1977.
- *Lepidotrigla selsiensis* STINTON 1978 = «genus *Percoideorum*» *selsiensis*.
  - *Lepomis irregularis* STINTON 1980 = an eroded «genus *Percoideorum*» *adunctus* (STINTON 1980).
  - *Lepomis rugosus* STINTON 1980 = doubtful species, see preliminary remarks to this list.
- T - «genus *Lepophidiinorum*» *steurbauti* NOLF 1980.
- T - *Lepophidium aequalis* STINTON & NOLF 1970 = «genus *Neobythitinerum*» *aequalis*, see NOLF (1980, p. 116).
- *Lepophidium subteres* STINTON 1965 ? = «genus ? *Gadidarum*» *ornatus* (STINTON 1965), see NOLF (1978, p. 225).
- T - *Otol. (Leptolepidarum?) aldorfensis* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- *Otolithus (Leptolepidarum) cristatus* FROST 1924. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Leptolepidarum) cuneiformis* FROST 1924. Cannot be evaluated on the basis of the iconography.
- T - *Otol. (Leptolepidarum?) dorsoarcuatus* WEILER, in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (Leptolepidarum?) dorsoconvexus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (Leptolepidarum?) dorsolobatus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- *Otolithus (Leptolepidarum) elongatus* FROST 1924. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Leptolepidarum) gracilis* FROST 1926. Cannot be evaluated on the basis of the iconography.
- T - *Otol. (Leptolepidarum?) lanceolatus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (Leptolepidarum?) longirostratus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (Leptolepidarum?) longus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (Leptolepidarum?) martini* WEILER in MARTIN & WEILER (1954) = doubtful species (eroded holotype; heterogeneous series of paratypes).
- T - *Otol. (Leptolepidarum?) menslagensis* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (Leptolepidarum?) modestus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (Leptolepidarum?) obliquus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (Leptolepidarum?) optimus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otolithus (Leptolepidarum) pentangulatus* FROST 1924 = «genus *Osteoglossidarum*» *pentangulatus*.
- T - *Otolithus (Leptolepidarum) plicatilis* FROST 1924. Cannot be evaluated on the basis of the iconography.
- *Otol. (Leptolepidarum?) probabilis* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (Leptolepidarum?) proximus* WEILER in MARTIN & WEILER (1954) = doubtful species (eroded holotype, heterogeneous series of paratypes).
- *Otolithus (Leptolepidarum) rostratus* FROST 1926. Cannot be evaluated on the basis of the iconography.
- T - *Otol. (Leptolepidarum?) similis* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otolithus (Leptolepidarum) ventroundulatus* WEILER in MARTIN & WEILER (1954) = doubtful species (eroded holotype; heterogeneous series of paratypes).
- *Otolithus (Leptolepidarum) simplex* FROST 1924, p. 140. Cannot be evaluated on the basis of the iconography.
  - *Leptolepis densus* STINTON in STINTON & TORRENS (1968) = «genus *Teleosteorum*» *densus*.
  - *Leptolepis roddenensis* STINTON in STINTON & TORRENS (1968) = «genus *Teleosteorum*» *roddenensis*.
  - *Leptolepis tenuirostris* STINTON in STINTON & TORRENS (1968) = «genus *Teleosteorum*» *tenuirostris*.
  - *Leptoscopus iocosus* SCHWARZHANS 1980.
  - *Leptoscopus progressus* SCHWARZHANS 1980.
- T - *Leuresthes distans* STINTON 1966 = rejected species (strongly eroded unique specimen).
- *Otolithus liasicus* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
  - *Limanda aomariensis* HATAI 1965 = doubtful species (unique eroded juvenile specimen).
  - *Otolithus (Limanda) otomoi* HATAI 1956. Cannot be evaluated on the basis of the iconography.
- T - «genus aff. *Liparis*» *minusculus* NOLF 1977.
- T - «genus *Lophidarum*» *gibbosus* NOLF 1977.
- T - *Lophius casieri* NOLF 1977 = *Dibranchius casieri*, see HUYGHEBAERT & NOLF 1979a, pl. 1, fig. 18-20).
- T - *Lophius papillosus* STINTON 1978 = *Lophius crenulatus* (FROST 1934).
- T - *Otolithus (Lophius) unicus* BASSOLI 1906 = «genus *Ogcocephalidarum*» *unicus*.
- T - *Otolithus (Lutianidarum) gracilis* FROST 1934 = doubtful species (eroded holotype; may be a juvenile of *Dentex pentagonalis* STINTON 1957).
- *Lutianus geminans* STINTON 1962. Cannot be evaluated on the basis of the iconography.
- T - *Lutianus lerichei* NOLF 1973 = «genus *Pomadasydarum*» *lerichei* (NOLF 1973), see NOLF & LAPIERRE (1979, p. 102).
- *Lycoclupea menakiae* GOWDA 1967. Cannot be evaluated on the basis of the iconography.
- T - *Otol. (Lycoperidarum?) acutus* WEILER in MARTIN &



- WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (Lycoperidarum?) acutus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (Lycoperidarum?) brevis* WEILER in MARTIN & WEILER (1965) = «genus *Teleosteorum*» *brevis*.
- T - *Otol. (Lycoperidarum?) brevis* WEILER in MARTIN & WEILER (1965) = «genus *Teleosteorum*» *brevis*.
- T - *Otol. (Lycoperidarum?) elegans* WEILER in MARTIN & WEILER (1965) = «genus *Teleosteorum*» *elegans*.
- T - *Otol. (Lycoperidarum?) portlandicus* WEILER in MARTIN & WEILER (1954) = doubtful species, see preliminary remarks to this list.
- T - *Otol. (Lycoperidarum?) rhenanus* WEILER in MARTIN & WEILER (1954) = «genus? *Elopidarum*» *rhenanus*.
- T - *Otol. (Lycoperidarum?) sculptus* WEILER in MARTIN & WEILER (1965) = «genus *Teleosteorum*» *sculptus*.
- T - *Otol. (Lycoperidarum?) similis* WEILER in MARTIN & WEILER (1956) = «genus *Teleosteorum*» *similis*.
- *Otolithus macrocephali* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Macruri) kokeni* RZEHAH 1893 = *Trachyrhynchus trachyrhynchus* (RISSE 1810).
- T - *Otolithus (Macruridarum) acuminatus* = doubtful species (based on not interpretable juvenile specimens).
- *Otolithus (Macruridarum) bavaricus* KOKEN in BÖHM (1891) = «genus *Sirembinorum*» *bavaricus*, see NOLF (1980, p. 117).
- ? *Macruridarum deurnensis* GAEMERS 1976 = *Gadiculus labiatus* (SCHUBERT 1905).
- *Macruridarum irregularis* GAEMERS 1973 = «genus aff. *Gadiculus*» *irregularis*.
- *Otolithus (Macruridarum) latisulcatus* FROST, 1933 = «genus *Melanonidarum*» *latisulcatus* (holotype refigured by SCHWARZHANS 1980).
- T - *Otolithus (Macruridarum) ovalis* WEILER 1943 = doubtful species (based on not interpretable juvenile specimens).
- *Otolithus (Macruridarum) singularis* KOKEN 1891 = doubtful species, see NOLF (1980, p. 117).
- *Macruronus merlucciformis* SCHWARZHANS 1980.
- *Macrurulus immanus* SCHWARZHANS 1980 = «genus *Merluccinarum*» *immanus*.
- T - *Macrurus altus* WEILER 1943 = doubtful species (based on not interpretable juvenile specimens).
- T - *Otolithus (Macrurus) angustus* SCHUBERT 1905 = *Trachyrhynchus trachyrhynchus* (RISSE 1810), see NOLF (1977, p. 37).
- T - *Otolithus (Macrurus) arthaberi* SCHUBERT 1905 = *Coelorhynchus arthaberi*.
- *Otolithus (Macrurus) arthaberoideus* BASSOLI 1906 = *Coelorhynchus arthaberi* (SCHUBERT 1905).
- *Otolithus (Macrurus) borneensis* POSTHUMUS 1929 = *Coelorhynchus borneensis*.
- T - *Otolithus (Macrurus) contortus* BASSOLI 1906 = *Nezumia contorta*.
- T - *Otolithus (Macrurus) crassus* SCHUBERT 1905 ? = *Trachyrhynchus trachyrhynchus* (RISSE 1810), see NOLF (1977, p. 37).
- *Otolithus (Macrurus) debilis* POSTHUMUS 1923 = *Gadiculus labiatus* (SCHUBERT 1905), see NOLF (1977, p. 38), HUYGHEBAERT & NOLF (1979a, p. 72).
- T - *Ot. (Macrurus) dimidiatus* BASSOLI 1909 = rejected species (type material consists of three eroded Myripristid otoliths, coming certainly not from the indicated locus typus, Grignon, according to their color).
- *Macrurus dorsoconcaus* SMIGIELSKA 1966 = doubtful species (based on juvenile, not interpretable specimens).
- T - *Macrurus dorsolobatus* WEILER 1943 = doubtful species (based on a not interpretable juvenile holotype).
- T - *Otolithus (Macrurus) ellipticus* SCHUBERT 1905 = *Gadiculus argenteus* GUICHENOT 1850, see NOLF (1977, p. 36).
- T - *Otolithus (Macrurus) excisus* SCHUBERT 1905 = *Gadiculus argenteus* GUICHENOT 1850, see NOLF (1981).
- T - *Otolithus (Macrurus) elongatus* SCHUBERT 1905 ? = *Trachyrhynchus trachyrhynchus* (RISSE 1810), see NOLF (1977, p. 37).
- T - *Otolithus (Macrurus) gatunensis* SCHUBERT 1909 = rejected species, see NOLF (1981).
- T - *Otolithus (Macrurus) gracilis* SCHUBERT 1905 = *Trachyrhynchus trachyrhynchus* (RISSE 1810), see NOLF (1977, p. 37).
- T - *Otolithus (Macrurus) hansfuchsi* = *Coryphaenoides hansfuchsi*, see NOLF (1981).
- *Macrurus latisulcatus* LERICHE 1910 = *Raniceps tuberculosus* (KOKEN 1884), see NOLF (1977, p. 28).
- T - *Otolithus (Macrurus) maximus* BASSOLI 1906 = *Coryphaenoides maximus*.
- *Otolithus (Macrurus) minimus* FROST 1934 = «genus *Bregmacerotidarum*» *minimus*.
- T - *Otolithus (Macrurus) novus* BASSOLI 1906 = *Bathygadus novus*.
- T - *Macrurus obliquus* WEILER 1950 = doubtful species (based on juvenile not interpretable specimens).
- *Otolithus (Macrurus) ornatus* BASSOLI 1906 = *Nezumia ornata*.
- *Otolithus (Macrurus) ornatus apicalis* BASSOLI 1906 = *Nezumia ornata* (BASSOLI 1906).
- T - *Otolithus (Macrurus) ottangiensis* SCHUBERT 1906 = rejected species, see NOLF (1981, p. 152).
- *Macrurus planus* SMIGIELSKA 1966 = doubtful species (based on not interpretable juvenile specimens).
- T - *Otolithus (Macrurus) praecursor* KOKEN 1891 = *Trachyrhynchus trachyrhynchus* (RISSE, 1810).
- T - *Otolithus (Macrurus) praetrachyrhynchus* SCHUBERT 1905 = *Trachyrhynchus trachyrhynchus* (RISSE 1810), see NOLF (1976, p. 37).
- *Otolithus (Macrurus) pusillus* POSTHUMUS 1923 = *Gadiculus labiatus* (SCHUBERT 1905), see NOLF (1977, p. 38), HUYGHEBAERT & NOLF (1979a, p. 72).
- *Macrurus rectangularis* SCHWARZHANS 1974 = *Gadiculus labiatus* (SCHUBERT 1905).
- T - *Macrurus rhombicus* WEILER 1943 = rejected species (holotype is a half juvenile otolith; paratypes also in poor status).
- T - *Otolithus (Macrurus) rotundatus* SCHUBERT 1905 ? = *Trachyrhynchus trachyrhynchus* (RISSE 1810), see NOLF (1977, p. 37).
- T - *Macrurus rotundus* WEILER 1943 = doubtful species (based on not interpretable juvenile specimens).
- T - *Macrurus rumanus* WEILER 1943 = doubtful species (based on not interpretable juvenile specimens).
- *Otolithus (Macrurus) sagittiformis* FROST, 1933 = *Ventrifossa sagittiformis* (holotype refigured by SCHWARZHANS 1980).
- *Macrurus simplex* SMIGIELSKA 1966 = doubtful species (based on not interpretable juvenile specimens).
- T - *Otolithus (Macrurus) toulai* SCHUBERT 1905 = *Coelorhynchus coelorhynchus toulai*.
- *Otolithus (Macrurus) toulai cristata* BASSOLI 1906 = *Coelorhynchus cristatus*.
- T - *Otolithus (Macrurus) trolli* SCHUBERT 1905 ? = *Trachyrhynchus trachyrhynchus* (RISSE 1810), see NOLF (1977, p. 37).
- *Maorigadus anarchicus* SCHWARZHANS 1980 = «genus *Macrouridarum*» *anarchicus*.
- *Maorigadus delicatulus* SCHWARZHANS 1980 = doubtful species; probably a juvenile of «genus *Macrouridarum*» *anarchicus* (SCHWARZHANS 1980).
- *Maurolicus aegrotus* SCHWARZHANS 1980.
- T - *Megalops angulatus* STINTON 1965 = doubtful species (strongly eroded unique specimen, probably an argentinid or an osmerid).
- *Megalops bicrenulatus* STINTON 1973 = «genus *Megalopidarum*» *bicrenulatus*.
- *Megalops lissa* STINTON 1958 = *Chlorophthalmus lissus*.
- *Melanophaea ovalis* SCHWARZHANS 1980.
- T - *Melanogrammus conjunctus* GAEMERS & SCHWARZHANS 1973.
- T - *Mene sekharani* NOLF & CAPPETTA 1976.
- *Mene simplex* STINTON 1980 = *Mene sekharani* NOLF & LAPIERRE 1979.



- T - *Merlangiogadus decorus* GAEMERS 1980 = *Micromesistius decorus*.
- T - *Merlangius bifurcus* GAEMERS 1973.  
- *Merlangius spatulatus miocenicus* HEINRICH 1969 = *Gadiculus miocenicus*.
- T - *Otolithus (Merlangus) cognatus* KOKEN 1891 = *Micromesistius cognatus*, see NOLF (1977, p. 25).
- T - *Otolithus (Merlangus) spatulus* KOKEN 1891 = *Gadiculus spatulus*.  
- *Merlangus tenuis* WEILER 1942 = *Merlangius tenuis*.  
- *Otolithus (Merlangus) vulgaris suffolkensis* KOKEN 1891 = *Melanogrammus suffolkensis*.  
- *Otolithus (Merluccii) balticus* KOKEN 1885. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Merlucci) emarginatus* KOKEN 1884 = *Paleogadus emarginatus*, see NOLF (1977, p. 22).  
- *Otolithus (Merlucciidarum) signeuxae* DARTEVELLE & CASIER 1959 ? = *Uranoscopus signeuxae*.
- T - *Merluccius apicalis* STINTON 1977 = rejected species (holotype and unique paratype are two eroded juvenile specimens).  
- *Otolithus (Merluccius) attenuatus* KOKEN 1891 ? = *Gadiculus attenuatus*.  
- *Merluccius fimbriatus* STINTON 1958 = rejected species (strongly eroded unique specimen).  
- *O. (Merluccius) globulosus* ROEDEL 1930. Cannot be evaluated on the basis of the iconography.  
- *O. (Merluccius) latisculptus* ROEDEL 1960 = doubtful species (fragmentary unique specimen).
- T - *Otolithus (Merluccius) marriotti* FROST 1931 = rejected species (strongly eroded unique specimen).  
- *Otolithus (Merluccius) miocenicus* KOKEN 1891. Cannot be evaluated on the basis of the iconography.  
- *O. (Merluccius) nanus* ROEDEL 1930. Cannot be evaluated on the basis of the iconography.
- T - *Merluccius nodosus* STINTON 1977.  
- *Otolithus (Merluccius) obtusus* KOKEN 1891. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Merluccius) ovalis* FROST 1931 = «genus *Gadidarum*» *ovalis*.
- T - *Otolithus (Merluccius) preesulentus* BASSOLI 1906 = *Merluccius merluccius* (LINNAEUS 1758).  
- *Otolithus (Merluccius) pukeuriensis* FROST 1924. Cannot be evaluated on the basis of the iconography.  
- *O. (Merluccius) schmitti* ROEDEL 1930 = «genus *Merlucciidarum*» *schmitti*.
- T - *Otolithus (Merluccius) shepherdii* SCHUBERT 1916 = *Merluccius shepherdii*.
- T - *Otolithus (Merluccius) tenuis* FROST 1931 = doubtful species (eroded holotype).  
- *Merluccius triangularis* WEILER 1942 = *Merluccius albidus* (MITCHILL 1817, see NOLF (1978b, p. 521)).  
- *Merluccius vulgaris brevis* LERICHE 1926 = *Merluccius albidus* (MITCHILL 1817), see NOLF (1978b, p. 521).  
- *Metabula bashiana* FRIZZELL 1965 = *Albula bashiana*.  
- *Micromesistius boscheimani* SCHWARZHANS 1979 = *Micromesistius poutassou* (RISSO 1826).
- T - *Micromesistius hochti* GAEMERS & SCHWARZHANS 1973.  
- *Micromesistius schwarzhansi* HOLEC 1975.  
- *Otolithus (Micropogon) distinctus* FROST 1925. Cannot be evaluated on the basis of the iconography.  
- *Minous carinatus* STINTON 1978 = «genus *Scorpaenoideorum*» *carinatus*.  
- *Minous excavatus* STINTON 1978 = doubtful species (unique juvenile specimen).
- T - *Molva dubia* STINTON 1966 = rejected species (strongly eroded unique specimen).
- T - *Molva izukai* NOLF 1977.  
- *Molva primaeva* GAEMERS 1976.
- T - *Otolithus (Monocentris) altus* WEILER 1950 = *Antigonia alta*.  
- *Otolithus (Monocentris) bellovacinus* PRIEM 1911 = *Apogon macrolepis* STORMS 1898, see TAVERNE & NOLF (1979, p. 143).  
- *Monocentris coxi* CASIER 1958 = «genus *Percoideorum*» *coxi*.  
- *Monocentris cristata* STINTON 1978 = *Antigonia angusta* STINTON & NOLF 1970.  
- *Otolithus (Monocentris) lemoini* var. *angulatus* FROST 1925. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Monocentris?) lerichei* SCHUBERT 1916 = «genus *Berycidarum*» *lerichei*.
- T - *Otolithus (Monocentris?) ortus* SCHUBERT 1912 = rejected species, see NOLF (1981).  
- *Monocentris senni* CASIER 1958 = «genus *Trachichthyidarum*» *senni*.  
- *Monocentris sphaeroides* STINTON 1958.
- T - *Monomitopus costatus* STINTON 1977 = *Monomitopus tuberculatus* (NOLF 1973).
- T - *Monomitopus grimmeringensis* NOLF 1974.  
- *Monomitopus nudus* SCHWARZHANS 1980.  
- *Monomitopus ovalis* SCHWARZHANS 1980.
- T - *Moringua explicata* STINTON 1975 = rejected species (strongly eroded unique specimen).
- T - *Moringua fissura* STINTON & NOLF 1970 = «genus *Ophichthyidarum*» *fissura*.  
- *Morone brevis* WEILER 1972.
- T - *Morone cornuta* NOLF & CAPPETTA 1980.  
- *Morone crassa* STINTON 1978.
- T - *Morone daimeriesi* NOLF 1977.
- T - *Morone eschmeyeri* NOLF & LAPIERRE 1979.
- T - *Morone moravica* WEILER 1966.  
- *Otolithus (Morrhua) anhaltinus* VOIGT 1926 = doubtful species (based on strongly eroded syntypes).  
- *Otolithus (Morrhua) latus* KOKEN 1891 = doubtful species, see NOLF (1980, p. 118).  
- *Otolithus (Morrhua) sollingensis* KOKEN 1891 = «genus *Neobythitinarum*» *fabia* (KOKEN 1884), see NOLF (1980, p. 118).
- T - *Otolithus (Mugil?) dissimilior* SCHUBERT 1906 = rejected species, see NOLF (1981, p. 155).  
- *Mugil pragalensis* JONET 1973 = «genus *Polynemidarum*» *pragalensis*.
- T - *Otolithus (Mugil) similis* SCHUBERT 1906 = rejected species, see NOLF (1981).  
- *Mugil voesendorfensis* WEINFURTER 1954.
- T - *Otolithus (Mugilidarum) debilis* KOKEN 1888 = «genus? *Mugilidarum*» *debilis*.  
- *Otolithus (Mugilidarum?) kornyensis* SCHUBERT 1912 = doubtful species, see NOLF (1981).
- T - *Mupus confinis* NOLF 1973.
- T - *Mupus neumanni* SCHWARZHANS 1974.
- T - *Muraena prima* STINTON 1975 = doubtful species (eroded unique specimen).
- T - *Muraenesox cymbium* STINTON 1966.  
- *Otolithus (Muraenesox) minimus* FROST 1933 = rejected species, see STINTON (1966, p. 462).
- T - *Muraenesox obrutus* STINTON 1958 = rejected species (strongly eroded unique specimen).
- T - *Muraenesox spatulus* NOLF & CAPPETTA 1976.  
- *Otolithus (Myctophidarum) acutirostrum* HOLEC 1975 = *Diaphus pedemontanus* (ROBBA 1970).  
- *Otolithus (Myctophidarum) aemilianus* ANFOSSI & MOSNA 1972 = *Ceratoscopelus maderensis* (LOWE 1839).  
- *Ot. (Myctophidarum) carpaticus* BRZOBOHATY 1965 = doubtful species (based on atypical juvenile myctophid otoliths).  
- *Ot. (Myctophidarum) kokeni longirostris* BRZOBOHATY 1967 = *Diaphus longirostris*.  
- *Otolithus (Myctophidarum) makutaensis* AOKI 1971 = *Ceratoscopelus warmingi* (LUTKEN 1892).  
- «*Myctophum*» *americanum* DANTE & FRIZZELL in FRIZZELL & DANTE (1965). Cannot be evaluated on the basis of the iconography.  
- *Myctophum oroseinum* DIENI 1968 = *Notoscopelus resplendens* (RICHARDSON 1845).  
- *Myctophum pliocenicum* ANFOSSI & MOSANA 1976 = *Scopelopsis pliocenicus* (ANFOSSI & MOSNA), see NOLF & STEURBAUT (1983, p. 159).  
- *Myctophum polygonium* AOKI 1971. Cannot be evaluated on the basis of the iconography.



- *Myctophum regulare* SMIGIELSKA 1966 = doubtful species (based on strongly eroded type material).
- *Myctophum rossiae* ROBBA 1970 = *Diaphus sulcatus* (BASSOLI 1906).
- *Myctophum spinatum* AOKI 1971. Cannot be evaluated on the basis of the iconography; a juvenile *Diaphus* otolith, belonging probably to a recent species.
- *Myctophum unicum* SCHWARZHANS 1979 = rejected species (unique eroded specimen).
- *Myctophum vastus* AOKI 1971. Cannot be evaluated on the basis of the iconography; probably an eroded *Diaphus* otolith.
- *Myrichthys brevis* STINTON 1975 = doubtful species (unique specimen is probably an atypical juvenile Antennariid).
- T - *Myripristis banatica* WEILER 1950 = «genus *Myripristinarum*» *banaticus*, see STEURBAUT (1979, p. 67).
- *Myripristis depressus* STINTON 1978 = rejected species (eroded unique specimen).
- *Myripristis radiata* WEILER 1959 = «genus *Myripristinarum*» *radiatus*.
- T - *Myripristis sinuatus* STINTON 1978 = «genus *Myripristinarum*» *sinuatus*.
- *Myripristis trigonus* STINTON 1962. Cannot be evaluated on the basis of the iconography.
- T - *Myripristis verus* STEURBAUT 1979.
- T - *Otolithus (Myrus) caudatus* FROST 1933 = rejected species (strongly eroded unique specimen).
- ? *Mystriophis obliquum* STINTON 1957 = doubtful species (eroded unique specimen).
  
- T - *Nemopteryx moravicus* WEILER 1935 = rejected species (strongly eroded holotype).
- T - *Neobythites angustus* STINTON 1977 = «genus *Neobythitinarum*» *angustus*, see NOLF (1980, p. 118).
- T - *Neobythites constrictus* STINTON 1977 = «genus *Neobythitinarum*» *constrictus*, see NOLF 1980, p. 118.
- T - *Neobythites laevis* STINTON 1977 = «genus aff. *Neobythites*» *laevis*, see NOLF (1980, p. 118).
- T - *Neobythites scabrosus* STINTON 1977 = rejected species, see NOLF (1980, p. 119).
- T - «genus aff. *Neobythites*» *spina* NOLF 1974 = «genus *Neobythitinarum*» *spina*, see NOLF (1980, p. 119).
- T - *Neobithites tuberculatus* NOLF 1973 = *Monomitopus tuberculatus*, see NOLF (1980, p. 118).
- T - «genus *Neobythitinarum*» *fitchi* NOLF 1980.
- T - «genus *Neobythitinarum*» *boulangeri* NOLF 1980.
- T - «genus *Neobythitinarum*» *longissimus* NOLF 1980.
- *Otolithus neocomiensis* STOLLEY 1910 = «genus *Albuloideorum*» *ablumensis* (STOLLEY 1910), see STOLLEY (1912, p. 21).
- T - *Neoditrema fercourtensis* NOLF 1973 = «genus *Percoideorum*» *fercourtensis*, see NOLF & CAPPETTA (1976, p. 265).
- T - *Neoscombrops flexuosus* STEURBAUT 1979.
- T - *Neoscombrops praeannectens* WEILER 1971 = *Parascombrops praeannectens*.
- ? *Neoscombrops vetustus* SCHWARZHANS 1980.
- T - *Nettastoma crenulatum* STINTON 1975 = *Hildebrandia eoecnica* (SHEPHERD 1916).
- *Netuma radiata* STINTON 1962. Cannot be evaluated on the basis of the iconography.
- *Netuma regularis* STINTON 1962. Cannot be evaluated on the basis of the iconography.
- *Nezumia contemplata* SCHWARZHANS 1979 = *Nezumia* ? aff. *sclerorhynchus* (VALENCIENNES 1863).
- *Nezumia mangapariensis* SCHWARZHANS 1980.
- *Nibea gemma* AOKI 1968. Cannot be evaluated on the basis of the iconography, probably an eroded otolith of a still living *Pennahia* species.
- *Nibea pacifica* HATAI 1965. Cannot be evaluated on the basis of the iconography.
- *Notacanthus circulus* OHE & ARAKI 1973 = doubtful species, types are probably eroded Myctophid otoliths.
- *Notesthes flexuosus* STINTON 1978.
- T - *Notogoneus brevirostris* SCHWARZHANS 1974.
  
- ? *Notoscopelus scopelopsoides* SCHWARZHANS 1980. Cannot be evaluated on the basis of the iconography.
- *Notothenia tenuis* STINTON 1957 = *Melanonus gracilis* GÜNTHER, 1878.
- *Novumbra oregonensis* CAVENDER 1969.
- *Otol. (Nyctophidarum) acutus* WEILER 1959 = *Myctophum acutum*, see FITCH (1969, p. 15).
- *Nyctophus biantlanticus* WEILER 1959 = *Symbolophorus biantlanticus*, see FITCH (1969, p. 15).
  
- T - *Oblada joneti* STINTON & NOLF 1970.
- T - *Ot. (Oblada) praemelanira* BASSOLI 1909 = *Pagellus acarne* (RISSE 1826).
- T - *Ogcocephalus cirrhosus* STINTON 1978.
- T - *Ogcocephalus glyptosus* STINTON 1978 = *Ogcocephalus glyptosus* STINTON 1978.
- T - *Ogilbia centrota* STINTON 1977 = rejected species, see NOLF (1980, p. 121).
- T - «genus aff. *Ogilbia*» *heinzelini* LANCKNEUS & NOLF 1979.
- T - *Ogilbia lapierrei* NOLF 1978.
- T - *Oligopus bassolii* NOLF 1980.
- T - *Oligopus bulbiformis* STINTON 1977 = *Benthocomectes bulbiformis*, see NOLF (1980, p. 122).
- T - *Oligopus gibbosus* STINTON 1977 = rejected species, see NOLF (1980, p. 121).
- T - *Onocottus asper* GAEMERS & SCHWARZHANS 1973 = *Gaidropsarus* sp., see NOLF (1978, p. 524).
- T - *Onos bergensis* GAEMERS 1972 = *Gaidropsarus bergensis*.
- T - *Onuxodon coheni* NOLF 1980.
- T - *Onuxodon kiriakoffi* NOLF 1980.
- *Otolithus opalini* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Ophichthys) acutus* FROST 1933 = «genus *Congridarum*» *websteri* FROST 1933.
- T - *Ophichthys sphaeroides* STINTON 1975 = rejected species (strongly eroded unique specimen).
- T - *Otolithus (Ophidiidarum?) approximatoides* SCHUBERT 1908 = rejected species, see NOLF (1980, p. 123).
- T - *Otolithus (Ophidiidarum?) boettgeri* KOKEN 1891 = *Sirembo boettgeri*.
- T - «genus *Ophidiidarum*» *bulbus* NOLF 1978 = «genus *Neobythitinarum*» *bulbus*, see NOLF (1980, p. 123).
- *Otolithus (Ophidiidarum) crepidatus* VOIGT 1926 = «genus *Dinematichthyinorum*» *crepidatus*.
- T - *Otolithus (Ophidiidarum) difformis hermsdorfensis* KOKEN 1891 = rejected subspecies, see NOLF (1980, p. 123).
- T - *Otolithus (Ophidiidarum) difformis joachimica* KOKEN, 1891 = *Hoplobrotula difformis* (KOKEN 1891), see NOLF (1980, p. 124).
- *Otolithus (Ophidiidarum) difformis vetusta* KOKEN 1891 = nomen nudum, see NOLF (1980, p. 124).
- T - *Otolithus (Ophidiidarum) dimidiatus* SCHUBERT 1916 = «genus *Neobythitinarum*» *dimidiatus* (SCHUBERT 1916), see NOLF (1980, p. 124).
- T - *Otolithus (Ophidiidarum) elegans* FROST 1934 = «genus *Neobythitinarum*» *regularis* (PRIEM 1911), see NOLF (1980, p. 125).
- *Otolithus (Ophidiidarum) elongatus* FROST 1924 = rejected species, see NOLF (1980, p. 125).
- T - *Otolithus (Ophidiidarum) gibbus* BASSOLI 1906 = *Hoplobrotula gibba*, see NOLF (1980, p. 125).
- *Otolithus (Ophidiidarum) hilgendorfi* KOKEN 1891 = «genus *Neobythitinarum*» *hilgendorfi*, see NOLF 1980, p. 125.
- T - *Otolithus (Ophidiidarum) hilgendorfi elongata* WEILER 1942 = *Hoplobrotula elongata* (WEILER 1942), see NOLF (1980, p. 126).
- T - *Otolithus (Ophidiidarum) hybridus* KOKEN 1891 = «genus *Neobythitinarum*» *hybridus*, see NOLF (1980, p. 126).
- T - *Otolithus (Ophidiidarum) kokeni* PRIEM 1906 = rejected species, see NOLF (1975, p. 210).
- T - *Otolithus (Ophidiidarum) marchicus* KOKEN 1891 = «genus *Bythitinarum*» *marchicus*, see NOLF (1980, p. 127).
- *Otolithus (Ophidiidarum) obliquus* WEILER 1942 = *Oligopus obliquus*, see NOLF (1980, p. 217).



- *Otolithus (Ophidiidarum) obotritus* KOKEN 1891 = *Siremba obotritus*, see NOLF (1980, p. 127).
- T - *Otolithus (Ophidiidarum) occultoides* SCHUBERT 1906 = «genus *Bythitinarum*» *occultoides*, see NOLF (1980, p. 127).
- T - *Otolithus (Ophidiidarum) occultus* KOKEN 1891 = «genus *Bythitidarum*» *occultus*, see NOLF (1980, p. 127).
- T - «genus *Ophidiidarum*» *ornatissimus* NOLF 1974 = «genus *Neobythitinarum*» *ornatissimus*, see NOLF (1980, p. 128).
- *Otolithus (Ophidiidarum) planus* FROST 1934 = «genus *Neobythitinarum*» *subregularis* (SCHUBERT 1916), see NOLF (1980, p. 128).
- T - *Otolithus (Ophidiidarum) productus* STINTON 1957 = *Ampheristus toliapicus* (KÖNIG 1825), see NOLF (1980, p. 128).
- *Otolithus (Ophidiidarum) regularis* PRIEM 1911 = «genus *Neobythitinarum*» *regularis*, see NOLF (1981, p. 128).
- *Otolithus (Ophidiidarum) rugosus* FROST 1934 = «genus *Neobythitinarum*» *obtusus* (FROST 1934), see NOLF (1980, p. 129).
- T - *Otolithus (Ophidiidarum) sagittalis* FROST 1934 = «genus *Dinematichthyinorum*» *symmetricus* (FROST 1934), see NOLF (1980, p. 129).
- T - *Otolithus (Ophidiidarum) saxonicus* KOKEN 1891 ? = «genus *Neobythitinarum*» *hybridus* (KOKEN 1891), see NOLF (1980, p. 129).
- *Otolithus (Ophidiidarum) semiglobosus* POSTHUMUS 1923 = doubtful species, see NOLF (1980, p. 129).
- T - *Otolithus (Ophidiidarum) sheppeyensis* FROST 1934 = «genus *Neobythitinarum*» *sheppeyensis*, see NOLF (1980, p. 129).
- *Otolithus (Ophidiidarum) sinister* PROCHAZKA 1893 = doubtful species, see NOLF (1980, p. 129).
- *Otolithus (Ophidiidarum) soldanii* PIERAGNOLI 1919 = «genus *Gobiidarum*» *soldanii*, see NOLF (1980, p. 130).
- T - «genus *Ophidiidarum*» *spinus* NOLF & CAPPETTA 1976 = «genus *Sirembinorum*» *spinus*, see NOLF (1980, p. 130).
- T - *Otolithus (Ophidiidarum) subregularis* SCHUBERT 1916 = «genus *Neobythitinarum*» *subregularis*, see NOLF (1980, p. 130).
- T - *Otolithus (Ophidiidarum) symmetricus* FROST 1934 = «genus *Dinematichthyinorum*» *symmetricus*, see NOLF (1980, p. 130).
- T - *Otolithus (Ophidiidarum) swalmensis* POSTHUMUS 1923 = rejected species, see NOLF (1980, p. 131).
- T - *Otolithus (Ophidiidarum) waltoni* SCHUBERT 1916 = *Ampheristus waltoni* (SCHUBERT 1916).
- T - *Ophidion barbadicum* CASIER 1958 = rejected species, see NOLF (1980, p. 131).
- T - *Ophidion granosum* STINTON 1958 = rejected species, see NOLF (1980, p. 131).
- T - *Ophidion polli* CASIER 1946 = *Glyptophidium polli*, see NOLF (1980, p. 132).
- *Ophidion polli incisum* CASIER 1946 = *Glyptophidium polli* (CASIER 1946), see NOLF (1980, p. 132).
- T - *Ophidion springeri* NOLF 1978.
- T - *Otolithus (Ophidium) appendiculatum* BASSOLI 1906 = *Hildebrandia pantanellii* (BASSOLI & SCHUBERT 1906).
- *Ophidium biarritzense* SULC 1932 = «genus aff. *Glyptophidium*» *biarritzense*, see NOLF (1980, p. 132).
- *Ophidium biscaicum* SULC 1932 = «genus *Neobythitinarum*» *biscaicum* (SULC 1932), see NOLF (1980, p. 133).
- T - *Ot. (Ophidium) gringonensis* BASSOLI 1909 = *Paraconger sawagei* (PRIEM 1906, see NOLF (1980, p. 133).
- T - *Otolithus (Ophidium) magnus* BASSOLI 1906 = *Hildebrandia pantanellii* (BASSOLI & SCHUBERT 1906).
- T - *Otolithus (Ophidium) obtusus* FROST 1925 = «genus *Neobythitinarum*» *obtusus* (FROST 1925), see NOLF (1980, p. 133).
- T - *Otolithus (Ophidium) pantanellii* BASSOLI 1906 = *Hildebrandia pantanellii*.
- T - *Otolithus (Ophidium) parvulus* BASSOLI 1906 = rejected species, see NOLF (1980, p. 134).
- T - *Otolithus (Ophidium) pulcher* BASSOLI 1906 = *Hildebrandia pantanellii* (BASSOLI & SCHUBERT 1906).
- *Otolithus (Ophidium) saxolensis* BASSOLI 1906 = *Ophidion saxolensis*, see NOLF (1980, p. 134).
- T - *Ophidipterus retusus* STINTON 1965 = «genus *Neobythitinarum*» *retusus* see NOLF (1980, p. 134).
- *Opisthonema collatum* STINTON 1977 = «genus *Clupeidarum*» *collatum*.
- T - «genus *Opisthognathidarum*» *bloti* NOLF & LAPIERRE 1979.
- T - *Orthopristis goodyi* NOLF 1975.
- T - *Orthopristis trewavasae* NOLF & LAPIERRE 1979.
- *Osmeridarum rectidorsalis* SCHWARZHANS 1977.
- T - *Osmerus colvellensis* STINTON 1977 = «genus aff. *Osmerus*» *hampshirensis* (SCHUBERT 1916), see NOLF & LAPIERRE (1979, p. 85).
- T - *Osmerus delicatulus* STINTON 1977 = «genus aff. *Osmerus*» *hampshirensis* (SCHUBERT 1916), see NOLF & LAPIERRE (1980, p. 85).
- *Osmerus lobatus* STINTON 1973 = doubtful species (poorly preserved holotype).
- T - *Osmerus sculptus* STINTON 1977 = «genus aff. *Osmerus*» *hampshirensis* (SCHUBERT 1916), see NOLF & LAPIERRE (1980, p. 85).
- T - *Otophidium caudatum* NOLF 1974 = «genus *Neobythitinarum*» *caudatum*, see NOLF (1980, p. 134).
- T - *Otophidium compactum* GAEMERS & SCHWARZHANS 1973 = «genus *Ophidiinorum*» *compactus*, see NOLF (1980, p. 135).
- T - *Ophidium splendens* STINTON 1966 = *Glyptophidium polli* (CASIER 1966), see NOLF (1980, p. 135).
- *Otolithus obesus* STINTON 1962. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Ouvstonia?) tsukizakiensis* HATAI 1965. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Pagelli) elegantulus* KOKEN 1888 = «genus *Sparidarum*» *elegantulus*.
- *Otolithus (Pagellus) concavus* FROST 1926. Cannot be evaluated on the basis of the iconography.
- T - *Pagellus folletti* NOLF & LAPIERRE 1979.
- *Pagellus marbellensis* SULC 1932.
- *Ot. (Pagellus) precentrodontus* SHEPHERD 1916. Cannot be evaluated on the basis of the iconography.
- *Pagellus remensis* LERICHE 1908 = *Isacia remensis*.
- T - *Otolithus (Pagellus) symmetricus* FROST 1934 = probably *Dentex gregarius* (KOKEN 1891). The stratum typicum indicated by FROST seems to be erroneous.
- T - *Pagellus weitzmani* NOLF 1977.
- *Pagrosomus comptus* STINTON 1966 = doubtful species (unique specimen is an eroded otolith with very generalised morphology).
- T - *Pagrosomus meldertensis* NOLF 1973 = *Chanda meldertensis*, see NOLF & CAPPETTA (1976, p. 261).
- *Otolithus (Pagrus) bartonensis* FROST 1934. Cannot be evaluated on the basis of the iconography.
- T - *Pagrus bogoriensis* STINTON 1966.
- T - *Pagrus gaemersi* SCHWARZHANS 1974 = *Pagrus distinctus* (KOKEN 1891), see NOLF (1977, p. 52).
- *Palaeogadus compactus* GAEMERS & VAN HINSBERGH 1978.
- T - *Palaeogadus pinguis* STINTON 1965 = rejected species (strongly eroded holotype and paratypes).
- T - *Palaeogadus serratus* STINTON 1966.
- T - *Palaeogadus trigonus* STINTON 1965 = rejected species (strongly eroded unique specimen).
- *Palaeoesox fritzschei* VOIGT 1934.
- T - *Palaeoesox densus* STINTON 1977.
- *Palaeoranceps gramensis* GAEMERS 1978 = *Raniceps gramensis*.
- T - *Palaeoranceps regularis* GAEMERS 1976 = *Raniceps regularis*.
- T - *Palaeumbra? acutirostris* WEILER 1973 = «genus *Umbridarum*» *acutirostris*.
- T - *Palaeumbra moguntina* WEILER 1973 = «genus *Umbridarum*» *moguntinus*.
- *Palaalbulula gracilis* WEILER 1972 = «genus *Albuloideorum*» *gracilis*.
- T - *Palaalbulula ventralis* WEILER 1971 = «genus *Albuloideorum*» *ventralis*.
- *Paleoscaena mizunamiensis* OHE 1976 = doubtful species (based on eroded specimens).



- *Parabatmya brazosensis* DANTE & FRIZZELL in FRIZZELL & DANTE (1965) = «genus aff. *Paraconger*» *brazosensis*.
- *Paracaesio elliptica* STINTON 1980 = doubtful species, see preliminary remarks to this list.
- *Paracentropogon annectens* STINTON 1978 = doubtful species (unique juvenile specimen).
- T - *Paraconger calvus* STINTON 1975 = *Paraconger papointi* (PRIEM 1906).
- T - *Paralabrax sectus* STINTON 1965 = «genus *Serranidarum*» *sectus*.
- *Paralabrax splendens* GAEMERS & VAN HINSBERGH 1975 = «genus *Serranidarum*» *splendens*.
- T - *Paralabrax tenuicauda* STINTON 1966 = «genus *Serranidarum*» *tenuicauda*.
- *Paralactarius iankeyesi* SCHWARZHANS 1980. Cannot be evaluated on the basis of the iconography (probably juvenile otoliths, lacking true diagnostic features).
- *Paralactarius ornatus* SCHWARZHANS 1980 = «genus ? *Lactaridarum*» *ornatus*.
- ? *Parapercis fatuus* SCHWARZHANS 1980.
- *Otolithus (Parapercis) finlayi* FROST 1924 = *Parapercis finlayi*.
- T - *Paraplagusia roseni* NOLF & CAPPETTA 1980.
- T - *Parapristipoma bavayi* NOLF & LAPIERRE 1979.
- *Parapristipoma foliatum* STINTON 1980 = «genus *Pomadasyidarum*» *foliatum*.
- *Parapristipoma gibbosum* STINTON 1980 = *Isacia gibbosa*.
- *Parapristipoma ovale* STINTON 1980 = «genus *Pomadasyidarum*» *kokeni* (LERICHE 1905).
- T - *Parastromateus tavernei* NOLF 1973.
- T - *Paratrachichthys angulatus* STINTON 1978 = doubtful species (unique specimen is probably an abnormal otolith).
- *Paratrachichthys cirratus* STINTON 1978 = *Optivus cirratus*.
- *Parequula crenata* SMIGIELSKA 1979 = *Dentex (Polysteganus)* aff. *macrophthalmus* (BLOCH 1791).
- *Pentaprion crenulatus* STINTON 1980 = doubtful species, see preliminary remarks to this list.
- *Pentaprion denticulatus* STINTON 1980 = *Pentaprion spinosus* (STINTON 1980).
- *Pentaprion spinosus* STINTON 1980.
- *Perca edlaueri* WEINFURTER 1950.
- *Perca hassiacia* WEILER 1961.
- T - *Perca prae-fluviatilis* Weiler 1963.
- *Otolithus (Perca) similis* FROST 1934. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Perca) striatus* FROST 1934 = «genus *Serranidarum*» *striatus*.
- T - *Otolithus (Percidarum) acuminatus* POSTHUMUS 1923 = juvenile of *Acropoma nobilis* (KOKEN, 1891).
- *Otolithus (Percidarum) acutus* PRIEM 1911. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Percidarum) aequalis* KOKEN 1891 = *Morone aequalis*.
- *Otolithus (Percidarum) aequalis burdigaliensis* PRIEM 1911 = «genus *Pomadasyidarum*» *lucidus* (BASSOLI 1906).
- T - *Otolithus (Percidarum) angustus* PRIEM 1906 ? = «genus *Pomadasyidarum*» *kokeni* (LERICHE 1905), see NOLF (1975, p. 207), NOLF & CAPPETTA (1976, p. 263).
- *Otolithus (Percidarum) applanatus* RZEHA 1893 = «genus *Mugilidarum*» *applanatus*.
- T - *Otolithus (Percidarum) arcuatus* BASSOLI & SCHUBERT 1906 ? = *Pomadasyis* aff. *incisus* (BOWDICH 1825).
- *Otolithus (Percidarum) bartonensis* PRIEM 1912. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Percidarum) brevis* PRIEM 1914 = rejected species (strongly eroded holotype).
- *Percidarum clivosum* STINTON 1958 = «genus *Percoideorum*» *clivosus*.
- T - *Otolithus (Percidarum) concavus* PRIEM 1906 = «genus *Pomadasyidarum*» *kokeni* (LERICHE 1905), see NOLF & CAPPETTA (1976, p. 263).
- *Otolithus (Percidarum) convexus* POSTHUMUS 1929. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Percidarum) cottreai* PRIEM 1912 = *Kublia cottreai*, see NOLF & CAPPETTA (1977, p. 262).
- *Ot. (Percidarum) dstrictus* BRZOBHATY 1967 = «genus *Acropomatidarum*» *ordinatus* (BRZOBHATY 1967).
- T - *Otolithus (Percidarum) elongatus* WEILER 1942 = «genus aff. *Pterothrissus*» *elongatus*.
- *O. (Percidarum) erraticus* ROEDEL 1930. Cannot be evaluated on the basis of the iconography.
- *Ot. (Percidarum) floriani* WEINFURTER 1952. Cannot be evaluated on the basis of the iconography; perhaps an Engraulid.
- *Otolithus (Percidarum) frequens* KOKEN 1891 = «genus *Acropomatidarum*» *frequens*.
- *Otolithus (an Percidarum ?) guttaringensis* LIEBUS 1927. Cannot be evaluated on the basis of the iconography.
- *O. (Percidarum) holsaticus* ROEDEL 1930. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Percidarum) hungaricus* SCHUBERT 1912 = doubtful species, see NOLF 1981.
- *Ot. (Percidarum) kalabisi* BRZOBHATY, 1967 = «genus *Acropomatidarum*» *ordinatus* (BRZOBHATY 1967).
- T - *Percidarum kokeni* LERICHE 1905 = «genus *Pomadasyidarum*» *kokeni*, see NOLF & CAPPETTA (1976, p. 263).
- *Otolithus (Percidarum?) kosdensis* SCHUBERT 1912 = «genus *Apogoninarum*» *kosdensis*.
- T - *Otolithus (Percidarum) liesselensis* POSTHUMUS 1923 = «genus *Percoideorum*» *liesselensis*.
- T - *Otolithus (Percidarum) limburgensis* = *Morone limburgensis*, see WEILER (1942, p. 36).
- *O. (Percidarum) minimus* ROEDEL 1930. Cannot be evaluated on the basis of the iconography.
- *Otol. (Percidarum) moenus* MALZ 1978 = «genus *Chandidarum*» *moenus*.
- T - *Otolithus (Percidarum) moguntinus* KOKEN 1891 = *Morone moguntina*.
- *O. (Percidarum) obliquestriatus* ROEDEL 1930. Cannot be evaluated on the basis of the iconography.
- *Ot. (Percidarum) oblongus* BRZOBHATY 1967 = «genus *Acropomatidarum*» *ordinatus* (BRZOBHATY 1967).
- T - *Otolithus (Percidarum) obtusus* PRIEM 1906 = «genus *Pomadasyidarum*» *kokeni* (LERICHE 1905), see NOLF (1975b, p. 207), NOLF & CAPPETTA (1976, p. 263).
- *Otolithus (Percidarum) ocsensis* SCHUBERT 1912 = «genus *Percidarum*» *ocsensis*.
- *Otolithus (Percidarum) opinatus* PROCHAZKA 1893. Cannot be evaluated on the basis of the iconography.
- *Ot. (Percidarum) ordinatus* BRZOBHATY 1967 = «genus *Acropomatidarum*» *ordinatus* (BRZOBHATY 1967).
- T - *Otolithus (Percidarum) plebejus* KOKEN 1891 = «genus *Sparidarum*» *plebejus*.
- *Otolithus (Percidarum) rectus* PRIEM 1913 = rejected species, see NOLF & LAPIERRE (1977, p. 266).
- T - *Otol. (Percidarum) transitus* STEBER & WEINFURTER 1967 = «genus *Perciformorum*» *transitus*.
- *Percidarum uawaensis* STINTON 1957 = doubtful species (eroded juvenile holotype).
- T - *Otolithus (Percidarum s. str.) varians* KOKEN, 1884 = «genus *Sparidarum*» *varians* (KOKEN 1884).
- T - «genus *Perciformorum*» *wheeleri* STEURBAUT 1979.
- T - *Peristedion acutum* WEILER 1942 = *Peristedion cataphractum* (LINNAEUS 1758), see HUYGHEBAERT & NOLF (1979a, p. 76).
- T - *Otolithus (Peristedion) clarus* BASSOLI 1906 = *Peristedion* aff. *cataphractum* (LINNAEUS 1758).
- *Otolithus (Peristedion) personatus* KOKEN 1891. Cannot be evaluated on the basis of the iconography.
- *Peristedion prominens* STINTON 1978 = «genus *Scorpaenoidaeorum*» *prominens*.
- *Peristedion pulchrum* JONET 1973 = *Uranoscopus pulcher*.
- T - *Peristedion semiglobosum* STINTON 1966 = rejected species (strongly eroded holotype).
- *Pholidophorus paradoxicus* STINTON in STINTON & TORRENS (1968) = «genus *Teleosteorum*» *paradoxicus*.
- *Pholidophorus prae-elops* STINTON in STINTON & TORRENS (1968) = «genus *Teleosteorum*» *praeelops*.



- T - *Otolithus (Phrynorhombus) bassolii* SCHUBERT 1906 = «genus aff. *Phrynorhombus*» *bassolii*.
- T - *Otolithus (Phycis) bartonensis* SCHUBERT 1916 = *Dannevigia bartonensis* (SCHUBERT 1916), see NOLF (1980, p. 135).
- T - *Otolithus (Phycis) elegans planata* BASSOLI & SCHUBERT in BASSOLI (1906) = *Micromesistius planatus*.
- T - *Otolithus (Phycis) elongatus* POSTHUMUS 1923 = doubtful species (very juvenile holotype).
- T - *Otolithus (Phycis) gracilis* FROST 1934 = rejected species, see NOLF (1980, p. 136).
- *Phycis praecognatus* SCHWARZHANS 1977.
  - *Phycis simplex miocenica* WEILER 1942 = *Phycis blennioides* BRUNNICH 1768, see NOLF (1977, p. 27).
  - *Otolithus (Physiculus) bicaudatus* FROST 1924 = «genus *Moridarum*» *bicaudatus*.
  - *Physiculus fitchi* SMIGIELSKA 1979 = *Physiculus* aff. *huloti* POLL 1953.
  - *Otolithus (Physiculus) terakohensis* FROST 1933. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Platessa) lobatus* BASSOLI 1906 = *Chaunax lobatus*.
- T - *Otolithus (Platessae) sector* KOKEN 1888 = *Paraconger sector* (fig. 14 of KOKEN = lectotype).
- T - *Platycephalus aculeatus* STINTON & NOLF 1970 = *Platycephalus janeti* (PRIEM, 1911).
- T - *Platycephalus fluctuosus* NOLF 1973.
- T - *Platysepta prima* STINTON 1965 = rejected species (strongly eroded holotype).
- T - *Plectroplites subobtusus* STINTON 1966 = rejected species (strongly eroded holotype).
- *Plesiops longulus* STINTON 1980 = doubtful species (unique eroded specimen).
  - *Otolithus (Pleuronectes) elongatus* FROST 1925. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Pleuronectes) sectoroides* SCHUBERT 1906 = rejected species, see NOLF 1981.
- T - *Pleuronectes vulsus* STINTON 1958 = rejected species, see NOLF (1980, p. 136).
- T - *Otolithus (Pleuronectidarum) acuminatus* KOKEN 1891? = «genus *Neobythitinarum*» *hybridus* (KOKEN 1891), see NOLF (1980, p. 136).
- T - *Otolithus (Pleuronectidarum) concavus* PRIEM 1914 = eroded specimen of *Brachydeuterus latior* (SCHUBERT 1906).
- *Otolithus (Pleuronectidarum) fangariensis* SCHUBERT 1912 = doubtful species, see NOLF (1981, p. 159).
  - *Otolithus (Pleuronectidarum?) hunyadensis* SCHUBERT 1912 = doubtful species, see NOLF (1981, p. 159).
  - *Otol. (Pleuronectidarum) irregularis* WEILER 1959 = doubtful species (unique juvenile atypical specimen).
  - *Otolithus (Pleuronectidarum) orbicularis* FROST, 1933 = rejected species, see SCHWARZHANS (1980, p. 169).
  - *Otolithus (Pleuronectidarum) splendens* SCHUBERT 1906 = *Hypoglossoides splendens*, see NOLF (1981, p. 160).
- T - *Otolithus (Pleuronectidarum?) subrostratus* SCHUBERT 1908 = rejected species, see NOLF (1981).
- *Otolithus (Pleuronectidarum) temptulensis* POSTHUMUS 1929 = doubtful species, see NOLF (1980, p. 136).
- T - *Otolithus (Pleuronectidarum) tenuis* FROST 1934 = «genus *Dinematichthyinorum*» *symmetricus* (FROST 1934), see NOLF (1981, p. 136).
- *Otolithus (Pleuronectus) boerialensis* VORSTMAN 1927 = *Ariosoma boerialensis*.
- T - *Pneumatophorus euodus* NOLF 1973.
- *Podothecus costulatus* STINTON 1978.
  - *Polymetme glareosus* SCHWARZHANS 1980.
- T - *Otolithus (Polymixia) eocenicus* FROST 1933 = *Centroberyx eocenicus*.
- T - *Polymixia? rhomboidalis* STINTON 1977 = «genus *Osteoglossidarum*» *rhomboidalis*.
- T - *Polymixia sarta* STINTON 1977 = «genus *Percoideorum*» *sarta*.
- T - *Polyperca serranoides* STINTON 1965 = «genus *Serranidarum*» *serranoides*.
- T - *Pomacanthus fitchi* NOLF 1973.
- T - «genus *Pomadasyidarum*» *gullentopsi* NOLF 1978.
- *Pomadasyidarum krebsi* SCHWARZHANS 1980.
  - *Pomadasyidarum longicaudatus* SCHWARZHANS 1980.
- T - *Genus Pomadasyidarum pouwi* VAN HINSBERGH 1980.
- *Pomadasyis angulosus* POMEROL 1973.
  - *Pomadasyis ornatus* JONET 1980 ? = *Pomadasyis* aff. *incisus* (BOWDICH 1825).
- T - *Pomadasyis ovalis* STINTON 1957 = «genus *Pomadasyidarum*» *ovalis*.
- T - *Pomadasyis sturbauti* NOLF & CAPPETTA 1980.
- T - *Pomolobus circularis* STINTON 1977 = «genus *Clupeidarum*» *circularis*.
- T - «genus aff. *Pontinus*» *foreyi* NOLF 1977.
- *Porichthys pedemontanus* ROBBA 1970 = *Diaphus pedemontanus*; after examination of an extensive series of topotypes of those strange otoliths; we are convinced that our assertion (NOLF 1980, p. 137) that this species should be an Ophidioid, is incorrect. The holotype of *D. pedemontanus* is a senile specimen of what HOLEC described in 1975 as *Otolithus (Myctophidarum) acutirostrum*.
  - *Praehoplichthys pulcher* SCHWARZHANS 1980 = «genus *Hoplichthyidarum*» *pulcher*.
  - *Pranesus densus* STINTON 1978.
  - *Prealbula weileri* FRIZZELL 1965 = «genus *Albulidarum*» *weileri*.
  - *Preophidion petropolis* DANTE & FRIZZELL in FRIZZELL & DANTE (1965) = «genus aff. *Siremba*» *petropolis*, see NOLF (1980, p. 137).
- T - *Preophidion stintoni* DANTE & FRIZZELL in FRIZZELL & DANTE (1965) = «genus *Neobythitinarum*» *stintoni*, see NOLF (1980, p. 137).
- T - *Primaevomesus tricrenulatus* STINTON 1965 = «genus *Osmearidarum*» *tricrenulatus*.
- *Prionotus contiguus* STINTON 1978 = «genus *Perciformorum*» *contiguus*.
- T - *Prionotus gibbosus* STINTON 1966 = doubtful species (very eroded unique specimen, but probably a Triglid).
- *Prionotus tortuosus* STINTON 1978 = rejected species (eroded unique specimen).
  - *Pristigenys bella* STINTON 1980.
- T - *Pristigenys caduca* NOLF 1973.
- *Pristigenys dentifer* STINTON 1980 = *Pristigenys caduca* NOLF 1973.
  - *Pristigenys spectabilis* STINTON 1980 = *Pristigenys caduca* NOLF 1973.
- T - *Pristipomoides ovalis* STINTON 1980 = doubtful species (holotype is an eroded juvenile otolith).
- *Pristipomoides ovatus* STINTON 1980 = doubtful species, see preliminary remarks to this list.
- T - *Pristipomoides pentagonalis* STINTON 1980 = *Xenistius pulcher* (FROST 1934).
- *Pristipomoides pulcher* STINTON 1980 = *Dentex laekeniensis* VAN BENEDEEN 1872.
- T - *Prolebias altus* WEILER 1963.
- *Prolebias napfi* VON SALIS 1967.
  - *Prolebias senesi* BRZOBHATY & STANCU 1974 = «genus *Cyprinodontidarum*» *senesi*.
  - *Prolebias weileri* VON SALIS 1967.
- T - *Proranceps leiopleurus* STINTON 1965 = «genus? *Gadidarum*» *ornatus* (STINTON 1965), see NOLF (1978, p. 225).
- T - *Promyllantor fastigatus* STINTON 1975 = rejected species, see NOLF & LAPIERRE (1979, p. 88).
- T - *Promyllantor guttulus* STINTON 1975 = «genus aff. *Pseudophichthys*» *guttulus*, see NOLF & LAPIERRE (1979, p. 88).
- T - *Promyllantor impletus* STINTON 1975 = «genus *Congridarum*» *diagonalis* (STINTON & NOLF 1970), see NOLF & LAPIERRE (1979, p. 88).
- T - *Promyllantor similis* STINTON 1975 = rejected species, see NOLF & LAPIERRE (1979, p. 88).
- T - *Proranceps leiopleurus* STINTON 1965 = «genus? *Gadidarum*» *ornatus* (STINTON 1965), see NOLF (1978, p. 225).
- *Protalbula sohli* FRIZZELL 1965 = «genus *Albulidarum*» *sohli*.



- *Ot. (Psetta) premaxima* SHEPHERD 1916 = «genus aff. *Osmerus*» *hampshirensis* (SCHUBERT 1916), see STINTON (1977, p. 78).
- T - *Psettodes collatus* NOLF 1973.
- T - *Psettodes oedelemensis* NOLF 1973.
- T - *Psettodes spinosus* NOLF 1973.
- *Pseudochromis truncatus* STINTON 1980 = doubtful species, see preliminary remarks to this list.
- *Pseudocolliolus cuykensis* GAEMERS 1978 = «genus aff. *Gadiculus*» *cuykensis*.
- *Pseudorhombus helvecianus* JONET 1973 = *Panturichthys subglaber* (SCHUBERT 1906).
- T - *Otolithus (Pseudoscarus) crenulatus* FROST 1934 = *Lophius crenulatus*.
- *Pseudosciaena angulata* STINTON 1962. Cannot be evaluated on the basis of the iconography.
- *Pseudoxenomystax whangaimoanaensis* SCHWARZHANS 1980.
- *Pterosmaris praemelanurus* STINTON 1980 = doubtful species (incomplete unique specimen).
- T - *Pterothrissus angulatus* STINTON 1966.
- T - *Pterothrissus antiquus* STINTON 1965.
- T - *Pterothrissus cristatus* STINTON 1975 = *Pterothrissus umbonatus* (KOKEN 1884).
- T - *Pterothrissus leiodus* STINTON 1975 = *Pterothrissus umbonatus* (KOKEN 1884).
- *Pterothrissus prevetustus* STINTON 1958.
- T - *Pterothrissus protensus* STINTON 1975.
- T - *Pterygotrigla londinensis* STINTON 1966 = rejected species (strongly eroded holotype).
- *Otolithus punzendorfensis* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- T - *Raniceps altus* NOLF 1966 = «genus *Merluccinarum*» *altus*.
- T - *Raniceps elegans* STINTON 1977 = «genus *Merluccinarum*» *elegans*.
- T - *Raniceps hermani* NOLF 1978.
- T - *Raniceps latidens* STINTON 1966 = doubtful species (juvenile atypic holotype).
- T - *Otolithus (Raniceps) latisulcatus pausramensis* SCHUBERT 1906 = *Raniceps tuberculatus* (KOKEN 1884), see NOLF (1981).
- T - *Raniceps papulosus* STINTON 1966 = rejected species (eroded holotype).
- *Otolithus (Raniceps) planus novaezeelandiae* FROST 1924 = *Eulichthys novaezeelandiae* (holotype refigured by SCHWARZHANS 1980).
- *Raniceps tuberculatus supraoligocaena* WEILER 1942 = *Raniceps tuberculatus* (KOKEN 1884).
- T - *Raniceps upnorienis* STINTON 1965 = «genus ? *Gadidarum*» *ornatus* (STINTON 1965), see NOLF (1978a, p. 225).
- *Otolithus rectisulcatus* SCHRÖDER 1956 = doubtful species (based on incomplete type material).
- T - *Rhomboplites casieri* NOLF 1970 = «genus *Serranidarum*» *striatus* (FROST 1934).
- *Rhombus altus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- *Rhombus corius foliformis* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- *Rhombus corius miocenicus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Rhombus?) minor* SCHUBERT 1906 = «genus *Hemiramphidarum*» *minor*, see NOLF (1981).
- T - *Otolithus (?Rhombus) rhenanus* KOKEN 1981 = *Citharus rhenanus*.
- *Saccogaster citreus* SCHWARZHANS 1980 = «genus *Bythitinarum*» *citreus*.
- T - ?*Salmo miocenicus* WEILER 1942 = «genus *Cyprinodontoidorum*» *miocenicus*.
- T - *Otol. (Salmonoidei?) cognatus* WEILER in MARTIN & WEILER 1954 = «genus *Teleosteorum*» *cognatus*.
- T - *Otol. (Salmonoidei?) oncorhynchoides* WEILER in MARTIN & WEILER (1954) = «genus *Teleosteorum*» *oncorhynchoides*.
- *Sardinella extensa* STINTON 1977.
- *Sardinella spatiosa* STINTON 1977.
- *Otolithus (Sargus) eocenicus* FROST 1934. Cannot be evaluated on the basis of the iconography.
- *Ot. (Sargus) prerondeleti* SHEPHERD 1916. Cannot be evaluated on the basis of the iconography.
- ?*Saurida indansi* SCHWARZHANS 1977. Cannot be evaluated on the basis of the iconography.
- T - *Saurida rectilineata* STEURBAUT 1979 = *Saurida germanica* (WEILER 1942).
- T - *Saurida tenuis* STINTON 1977 = *Saurida recta* (FROST 1933).
- *Otolithus schattenbergi* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Sciaena) amplus* KOKEN 1891. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Sciaena?) compactus* SCHUBERT 1902 = rejected species, see NOLF (1981, p. 161).
- T - *Otolithus (Sciaena?) excissus* SCHUBERT 1902 = rejected species, see NOLF (1981, p. 161).
- *Otolithus (Sciaena) holsaticus* KOKEN 1891 = «genus *Sciaenidarum*» *holsaticus*.
- T - *Otolithus (Sciaena) irregularis* KOKEN 1884 = doubtful species (eroded holotype).
- T - *Otolithus (Sciaena) irregularis angulata* SCHUBERT 1902 = rejected subspecies, see NOLF (1981, p. 161).
- T - *Otolithus (Sciaena) kirchbergensis* KOKEN 1891 = rejected species (strongly eroded holotype).
- T - *Otolithus (Sciaena?) levis* SCHUBERT 1902 = rejected species, see NOLF (1981, p. 162).
- T - *Otolithus (Sciaena) meridionalis* KOKEN 1891 = rejected species (strongly eroded holotype).
- *Sciaena moguntiniformis* PANA 1977. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Sciaena) obtusus* KOKEN 1891 = doubtful species (strongly eroded holotype).
- T - *Sciaena moguntina* WEILER 1942 = *Umbrina moguntina*.
- *Otolithus (Sciaena) ovatus grossouvrei* PRIEM 1911 = *Umbrina* aff. *ronchus* VALENCIENNES 1843.
- T - *Otolithus (Sciaena) priemi* PIERAGNOLI 1919 = rejected species (strongly eroded holotype).
- T - *Sciaena similis* WEILER 1966 = *Argyrosomus similis*.
- *Otolithus (Sciaena) simplex* FROST 1926. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Sciaena) speciosus* KOKEN 1891 = doubtful species (eroded holotype).
- T - *Otolithus (Sciaena?) telleri* SCHUBERT 1902 = «genus aff. *Umbrina*» *kokeni* (SCHUBERT 1902), see NOLF (1981, p. 162).
- T - «genus *Sciaenidarum*» *barthassadensis* NOLF & CAPPETTA 1980.
- *Otolithus (Sciaenidarum) clarus* AOKI 1971 = juvenile of *Pennahia argentata* (HOULTUYN 1782).
- T - *Otolithus (Sciaenidarum) claybornensis* KOKEN 1888 = «genus *Sciaenidarum*» *claybornensis*.
- T - *Otolithus (Sciaenidarum) corii* SCHUBERT 1902 = *Argyrosomus* aff. *regius* (ASSO 1801), see NOLF (1981, p. 162).
- T - *Otolithus (Sciaenidarum) corii abrupta* SCHUBERT 1902 = rejected subspecies, see NOLF (1981, p. 163).
- T - *Otolithus (Sciaenidarum) corii cossmanni* PRIEM 1911 = *Argyrosomus regius* (ASSO 1801).
- T - *Otolithus (Sciaenidarum) corii simplex* SCHUBERT 1902 = rejected subspecies, see NOLF (1981, p. 163).
- T - *Otolithus (Sciaenidarum) decipiens* KOKEN 1888 = «genus *Sirembinorum*» *decipiens*, see NOLF (1980, p. 137).
- T - *Otolithus (Sciaenidarum) depressus* SCHUBERT 1902 = rejected species, see NOLF (1981, p. 163).
- *Otolithus (Sciaenidarum) dubius* SCHUBERT 1902 = rejected species, see NOLF (1981, p. 163).
- *Otolithus (Sciaenidarum) ellipticus* WEILER 1942. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Sciaenidarum) elongatus* KOKEN 1884 = doubtful species (eroded holotype).
- T - *Otolithus (Sciaenidarum) eporrectus* KOKEN 1888 = «genus *Sciaenidarum*» *eporrectus*.
- T - *Otolithus (Sciaenidarum) fuchsi* SCHUBERT 1902 = «genus *Sciaenidarum*» *fuchsi*, see NOLF (1981, p. 163).



- T - *Otolithus (Sciaenidarum) gemma* KOKEN 1888 = doubtful species (syntypes are eroded otoliths of two different species).
- T - *Otolithus (Sciaenidarum) gemmoides* SCHUBERT 1902 = rejected species, see NOLF (1981, p. 164).
- *Otolithus (Sciaenidarum) gibberulus* KOKEN 1884 = doubtful species (figured specimen lost; syntypes *Ot.* 142, in the Museum für Naturkunde der Humboldt Universität, Berlin, are juvenile *Umbrina*-otoliths).
- T - *Otolithus (Sciaenidarum) gracilis* SCHUBERT 1902 = rejected species, see NOLF (1981, p. 164).
- T - *Otolithus (Sciaenidarum) gracilis sallensis* PRIEM 1914 = rejected subspecies (strongly eroded holotype).
- *Otolithus (Sciaenidarum) insignis* KOKEN 1891 = *Plectrypops insignis*.
- T - *Otolithus (Sciaenidarum) intermedius* KOKEN 1888 = doubtful species (based on eroded specimens).
- T - *Otolithus (Sciaenidarum) kittli* SCHUBERT 1902 = rejected species, see NOLF (1981, p. 164).
- T - *Otolithus (Sciaenidarum) kokeni* SCHUBERT 1902 = «genus aff. *Umbrina*» *kokeni*, see NOLF (1981, p. 164).
- *Otolithus (Sciaenidarum) loczyi* LÖRENTHEY 1906 = doubtful species (unique juvenile specimen).
- T - *Otolithus (Sciaenidarum) matoschi* SCHUBERT 1908 = rejected species, see NOLF (1977, p. 40).
- *Sciaenidarum mauchi* LERICHE 1907 = *Umbrina* aff. *ronchus* VALENCIENNES 1843.
- *Otolithus (Sciaenidarum) mexicanus* LERICHE 1938 = *Ctenosciaena mexicana*.
- *Otolithus (Sciaenidarum) ovatus* KOKEN 1891 = doubtful species (figured specimen lost; syntypes *Ot.* 139 in the Museum für Naturkunde der Humboldt Universität, Berlin, are eroded juvenile specimens).
- *Otolithus (Sciaenidarum) panonicus* LÖRENTHEY 1906 = doubtful species (unique juvenile specimen).
- T - *Otolithus (Sciaenidarum) priemi* SCHUBERT 1916 = «genus *Myripristinarum*» *priemi*, see NOLF & LAPIERRE (1979, p. 93-94).
- T - *Otolithus (Sciaenidarum) pyrenaicus* PRIEM 1911 = *Umbrina pyrenaica*, see NOLF & STEURBAUT (1979, p. 13).
- T - *Otolithus (Sciaenidarum) radians* KOKEN 1888 = rejected species (eroded juvenile holotype).
- *Otolithus (Sciaenidarum) schuberti* LORENTHEY 1906 = doubtful species (unique juvenile specimen).
- T - *Otolithus (Sciaenidarum) sheppeyensis* FROST 1934 = *Holocentrus sheppeyensis*, see NOLF (1979, p. 227).
- T - *Otolithus (Sciaenidarum) similis* KOKEN 1888 = doubtful species (based on atypical juvenile syntypes).
- *Otolithus (Sciaenidarum) songgoensis* VORSTMAN 1927 = doubtful species (based on a single eroded juvenile otolith).
- *Otolithus (Sciaenidarum) staringi* POSTHUMUS 1923 = doubtful species (unique juvenile specimen).
- *Ot. (Sciaenidarum) styriacus* WEINFURTER 1952. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Sciaenidarum) subeporectus* VORSTMAN 1927. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Sciaenidarum) subgemma* SCHUBERT 1902 = rejected species, see NOLF (1981).
- T - *Otolithus (Sciaenidarum) subsimilis* SCHUBERT 1902 = rejected species, see NOLF (1981).
- *Otolithus (Sciaenidarum) teutonicus* = «genus *Sciaenidarum*» *teutonicus*, see HUYGHEBAERT & NOLF (1979a, p. 79).
- *Otolithus (Sciaenidarum) veracruzensis* WEILER 1959 = doubtful species (unique juvenile specimen).
- *Sciaenops eastmani* DANTE 1953.
- *Otolithus scissus* SCHRÖDER 1956 = doubtful species (based on incomplete types).
- *Scomberoides productus* STINTON 1980 = «genus *Synodontidarum*» *productus*.
- T - *Scomberomorus priscus* STINTON 1966 = rejected species (holotype is an eroded, very incomplete otolith).
- *Scombridarum bisculptatus* SCHWARZHANS 1974.
- T - *Otolithus (?Scombridarum) lamberti* PRIEM 1906 = *Sillago lamberti*.
- *Otolithus (Scombridarum) thynnoides* KOKEN 1891. Cannot be evaluated on the basis of the iconography.
- *Scombrops crenulatus* STINTON 1980 = *Epinephelus crenulatus*.
- *Otolithus (Scombrops) kataoki* HATAI 1956 = *Coelorhynchus* sp.
- T - *Scombrops sinuosus* STINTON 1965 = «genus *Percoideorum*» *sinuosus*.
- *Otolithus (Scopelidarum) borneensis* POSTHUMUS 1929. Cannot be evaluated on the basis of the iconography.
- ?*Scopeloberyx sioides* SCHWARZHANS 1980 = «genus *Melamphaidarum*» *sioides*.
- *Scopelosaurus brevirostris* SCHWARZHANS 1980.
- *Scopelus an* SULC 1932 = *Diaphus an*.
- *Otolithus (Scopelus) biarrizensis* PRIEM 1912 = rejected species (based on a strongly eroded myctophid otolith).
- *Ot. (Scopelus) biarrizensis bartonensis* SHEPHERD, 1916. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Scopelus) cassidiformis* FROST 1933. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Scopelus) circularis* FROST 1924. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Scopelus) circularis* VORSTMAN 1927 = obliterated name (preoccupied by *Scopelus circularis* FROST 1924).
- *Otolithus (Scopelus) circularis* FROST 1925 = obliterated name (preoccupied by *Scopelus circularis* FROST 1924).
- *Otolithus (Scopelus) concentricus* FROST 1933 = *Benthoema concentrica* (holotype refigured by SCHWARZHANS 1980).
- *Scopelus ellipticus* SULC 1932 = doubtful species (based on eroded syntypes).
- *Otolithus (Scopelus) ellipticus* FROST 1933 = obliterated name (preoccupied by *Scopelus ellipticus* SULC 1932).
- *Scopelus excavatus* SULC 1932 = *Diaphus excavatus*.
- *Otolithus (Scopelus) excisus* FROST 1933 = *Diaphus excisus* (holotype refigured by SCHWARZHANS 1980).
- *Otolithus (Scopelus) frosti* VORSTMAN 1927 = rejected species (strongly eroded holotype).
- *Otolithus (Scopelus) incisus* FROST 1933. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Scopelus) konganaruensis* FROST 1933. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Scopelus) laminatus* FROST 1933. Cannot be evaluated on the basis of the iconography.
- T - *Scopelus latirostratus* WEILER 1950 = doubtful species (based on juvenile *Diaphus* otoliths, perhaps *Diaphus debilis* (KOKEN 1891)).
- *Otolithus (Scopelus) mammatus* FROST 1933. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Scopelus) marwicki* FROST 1933 = *Diaphus marwicki* (holotype refigured by SCHWARZHANS 1980).
- *Otolithus (Scopelus) mediterraneus gracilis* SCHUBERT, 1912 = doubtful species, see NOLF (1981, p. 165).
- *Otolithus (Scopelus) mimiensis* FROST 1933 = *Lampanyctodes mimiensis* (holotype refigured by SCHWARZHANS 1980).
- T - *Scopelus obliquus* WEILER 1943 = doubtful species (not identifiable juvenile, perhaps *Diaphus debilis* (KOKEN 1891)).
- «*Scopelus*» *ovatus* STINTON 1957 = «genus *Ophichthyidarum*» *ovatus*.
- *Scopelus papuensis* SCHUBERT 1910 = *Myctophum papuense*, see NOLF (1981).
- *Scopelus regularis* FROST 1933. Cannot be evaluated on the basis of the iconography.
- *Scopelus tenuis murbani* WEINFURTER 1952 = *Hygophum murbani*.
- *Otolithus (Scopelus) tutamoensis* FROST 1933 = *Diaphus marwicki* FROST 1933 (holotype refigured by SCHWARZHANS 1980).
- T - *Scorpaena edegemensis* GAEMERS 1973.
- T - *Scorpaena regularis* STINTON 1978.
- T - *Otolithus (Scorpaenidarum) acutus* FROST 1934 = «genus *Scorpaenidarum*» *acutus*.
- *Otolithus (Scorpaenidarum) kasamoriensis* AOKI & BABA 1980. Cannot be evaluated on the basis of the iconography.
- *Scorpaenodes recurvus* STINTON 1978 = doubtful species (an



- unique specimen of very generalized morphology, probably not a scorpaenid).
- *Sebastes weileri* GAEMERS 1972.
  - *Sebastes fissicostatus* STINTON 1963. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Sebastes) kokumotoensis* HATAI 1956 = *Coelorhynchus* sp.
  - *Sebastes perangustus* STINTON 1978 = doubtful species (unique juvenile specimen).
  - *Otolithus (Serranidarum) anesakiensis* AOKI 1971. Cannot be evaluated on the basis of the iconography.
  - T - *Otolithus (Serranidarum) curvidorsalis* = «genus *Percoideorum*» *curvidorsalis*.
  - T - *Otolithus (Serranidarum) elongatus* WEILER 1942 = «genus *Serranidarum*» *elongatus*; preoccupied by «genus *Serranidarum*» *elongatus* (SULC 1932).
  - *Otolithus (Serranidarum) gabonensis* DARTEVELLE & CASIER 1959 = doubtful species (unique atypical juvenile sparid otolith).
  - T - *Otolithus (Serranidarum) minsterensis* FROST 1934 = *Spicara minsterensis*.
  - *Otolithus (Serranidarum) ostiolatus* FROST 1934 = «genus *Pomadasyidarum*» *ostiolatus*.
  - T - *Otolithus (Serranidarum) planisulcatus* FROST 1931? = «genus *Percoideorum*» *curvidorsalis* (FROST 1931).
  - *Otolithus (Serranidarum) rectangulus* FROST 1934 = «genus *Pomadasyidarum*» *rectangulus*.
  - *Serranidarum dentatus* SCHWARZHANS 1980.
  - *Otolithus (Serranidarum) serratus* FROST 1933 = *Acropoma serrata* (holotype refigured by SCHWARZHANS (1980)).
  - *Otolithus (Serranidarum) undulatus* STINTON 1957 = doubtful species (eroded specimen, perhaps *Spicara minsterensis* FROST 1934).
  - T - *Otolithus (Serranus) bourdoti* PRIEM 1906 = «genus aff. *Caesio*» *bourdoti*, see NOLF (1975, p. 205).
  - *Serranus brevicaudus* STINTON 1980 = doubtful species, see preliminary remarks to this list.
  - T - *Serranus delicatulus* STINTON & NOLF 1970.
  - T - *Otolithus (Serranus) distinctus* KOKEN 1891 = *Pagrus distinctus*.
  - *Serranus exilis* STINTON 1980 = doubtful species, see preliminary remarks to this list.
  - *Otolithus (Serranus) insignis* PROCHAZKA 1893. Cannot be evaluated on the basis of the iconography.
  - *Serranus krefeldensis* SCHWARZHANS 1974 = «genus *Sparidarum*» *krefeldensis*.
  - *Otolithus (Serranus) noetlingi* KOKEN 1891. Cannot be evaluated on the basis of the iconography.
  - *Serranus praelongus* STINTON 1980 = *Haliophis colletti* NOLF & LAPIERRE 1979.
  - T - *Otolithus (Serranus) steinabrunnensis* SCHUBERT 1906 = *Lithognathus steinabrunnensis*, see NOLF (1980, p. 166).
  - *Setipinna retusa* STINTON 1962. Cannot be evaluated on the basis of the iconography.
  - *Signata nicoli* DANTE & FRIZZELL 1965 = «genus *Ophiidiidarum*» *nicoli*, see NOLF (1980, p. 138).
  - *Signata stenzeli* DANTE & FRIZZELL 1965 = «genus *Ophiidiidarum*» *stenzeli*, see NOLF (1980, p. 138).
  - *Sillago pliocenica* STINTON 1962.
  - *Sillago recta* SCHWARZHANS 1980.
  - T - *Otolithus (Siluridarum) incertus* PRIEM 1906 = rejected species, see NOLF (1975, p. 211).
  - T - «genus *Sirembinorum*» *cappettaensis* NOLF 1980.
  - T - «genus *Sirembinorum*» *ringedei* NOLF 1980.
  - *Siremba convexus* STINTON, 1977 = «genus aff. *Siremba*» *convexus*, see NOLF (1970, p. 139).
  - T - *Siremba tumidus* NOLF, 1973 = «genus *Sirembinorum*» *tumidus*, see NOLF (1980, p. 140).
  - *Otolithus (Smaris) eocenicus* FROST 1934 = rejected species, see STINTON (1966, p. 463).
  - *Smerdis borkensis* WEILER 1961 = *Dapalis borkensis*.
  - ?*Smerdis kuhni* WEINFURTER 1967. Cannot be evaluated on the basis of the iconography.
  - T - *Smerdis rotundus* WEILER 1963 = *Dapalis rotundus*.
  - *Otolithus (Solea) angulatus* FROST 1925. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Solea) approximatus* KOKEN 1891. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Solea) balonggensis* VORSTMAN 1927. Cannot be evaluated on the basis of the iconography.
  - T - *Otolithus (Solea) bartonensis* FROST 1934 = «genus *Heterenchelyidarum*» *circularis* (SHEPHERD 1916).
  - *Otolithus (Solea) cottreui* PRIEM 1911 = rejected species (based on an eroded *Diaphus* otolith).
  - *Otolithus (Solea) guestfalicus* KOKEN 1891 = doubtful species (the specimen SMF P2425, refigured by ZILCH (1965, pl. 37, fig. 32 belongs to a different species than the one figured by KOKEN, the later cannot be evaluated on the basis of the iconography).
  - T - *Otolithus (Solea) kokeni* BASSOLI & SCHUBERT 1906 = *Arnoglossus kokeni*.
  - T - *Otolithus (Solea) latior* SCHUBERT 1906 = *Microchirus* aff. *variegatus* (DONOVAN 1808).
  - *Otolithus (Solea) patens* BASSOLI & SCHUBERT 1906 = *Solea patens*.
  - *O. (Solea) solitarius* ROEDEL 1930 = doubtful species (incomplete eroded holotype).
  - *Otolithus (Solea) songgoensis* VORSTMAN 1927. Cannot be evaluated on the basis of the iconography.
  - T - *Otolithus (Solea) subglaber* SCHUBERT 1906 = *Panturichthys subglaber*, see NOLF & MARTINELL (1980, p. 210).
  - T - *Otolithus (Solea) subvulgaris* SCHUBERT 1906 = *Dicologlossa subvulgaris*, see NOLF (1981, p. 168).
  - *Solea taureri* WEINFURTER 1952. Cannot be evaluated on the basis of the iconography.
  - T - *Otolithus (Solea) tenuis* SCHUBERT 1906 = «genus *Pleuronectiformorum*» *tenuis*, see NOLF (1981).
  - T - *Otolithus (Soleae) glaber* KOKEN 1888 = «genus aff. *Pseudophichthys*» *glaber*.
  - T - *Otolithus (Soleae) lenticularis* KOKEN 1884 = «genus aff. *Pseudophichthys*» *lenticularis*; drawing of KOKEN gives a inexact impression of the specimen.
  - «genus *Soleidarum*» *schultzei* NOLF & LAPIERRE 1979.
  - *Otolithus (Sparidarum) babei* AOKI 1968 = *Pagrosomus major* TEMMINCK & SCHLEGEL 1842.
  - *Ot. (Sparidarum) brunnensis* WEINFURTER 1954 = «genus *Sparidarum*» *brunnensis*.
  - *Otolithus (Sparidarum) coffea* WOLLEMAN 1903. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Sparidarum) crescens* FROST 1925. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Sparidarum) densus* FROST 1934. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Sparidarum) elegans* PROCHAZKA 1893. Cannot be evaluated on the basis of the iconography.
  - *Otolithus (Sparidarum) elongatus* PRIEM = «genus *Chandi-darum*» *elongatus*, see NOLF & LAPIERRE (1977, p. 259).
  - *O. (Sparidarum) faurai* CHAINE & DUVERGIER 1931 = doubtful species (eroded otolith of a very old *Dentex*).
  - T - *Otolithus (Sparidarum) fragilis* BASSOLI 1906 = rejected species (eroded incomplete holotype).
  - *Otolithus (Sparidarum) frosti* VORSTMAN 1927 = doubtful species (heterogeneous series of eroded syntypes).
  - T - *Otolithus (Sparidarum) gregarius* KOKEN 1891 = *Dentex (Polysteganus) gregarius*, see NOLF (1977, p. 54).
  - *Ot. (Sparidarum) gregarius papyraceus* WEINFURTER 1952 = rejected species (strongly eroded unique specimen).
  - T - *Otolithus (Sparidarum) insuetus* KOKEN 1888 = rejected species (eroded holotype).
  - *Ot. (Sparidarum) kuhni* WEINFURTER 1954. Cannot be evaluated on the basis of the iconography.
  - *Ot. (Sparidarum) kuhni gracilis* WEINFURTER 1954. Cannot be evaluated on the basis of the iconography.
  - T - *Otolithus (Sparidarum) lemoini* PRIEM 1906 = rejected species, see NOLF (1975, p. 208).
  - *O. (Sparidarum) leupoldi* POSTHUMUS 1929. Cannot be evaluated on the basis of the iconography.



- T - *Otolithus (Sparidarum) mutinensis* BASSOLI 1906 = *Parascombrops mutinensis*.
- *Otolithus (Sparidarum) oligocenicus* FROST 1934. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Sparidarum) pomazensis* SCHUBERT 1912 = doubtful species, see NOLF (1981, p. 169).
- T - *Sparidarum rutoti* LERICHE 1905 = *Pristigenys rutoti*, see NOLF (1973, p. 145).
- T - *Otolithus (Sparidarum) sawagei* PRIEM 1906 = *Paraconger sawagei*, see NOLF (1975, p. 210).
- *Otolithus (Sparidarum) senoniensis* VOIGT 1926 = «genus *Berycidarum*» *senoniensis*.
- *Otolithus (Sparidarum) sigmoidalis* FROST 1933 = *Lactarius sigmoidalis* (holotype refigured by SCHWARZHANS 1980).
- *Otolithus (Sparidarum) sollingensis* KOKEN 1884. Cannot be evaluated on the basis of the iconography.
- *Otolithus (Sparidarum) teumeri* VOIGT 1926 = doubtful species (based on very eroded syntypes).
- T - *Otolithus (Sparidarum) voslauensis* SCHUBERT 1906 = *Pomadasyus aff. incisus* (BOWDICH 1825), see NOLF (1981, p. 169).
- T - «genus *Sparidarum*» *whiteheadi* NOLF 1977.
- *Sparus caraibaeus* CASIER 1958 = *Lactarius caraibaeus*.
- *Sphaeramia subangula* STINTON 1980 = *Antigonia angusta* STINTON & NOLF 1970.
- *Sphaerionchus circularis* STINTON in STINTON & TORRENS (1968) = «genus *Acanthopterygiorum*» *circularis*.
- *Sphaerionchus dorsetensis* STINTON in STINTON & TORRENS (1968) = «genus *Acanthopterygiorum*» *dorsetensis*.
- *Sphaerionchus rotundus* STINTON 1973 = doubtful species (based on the partial impression of a unique specimen).
- T - *Otolithus (Sphyaena) hansfuchsi* SCHUBERT 1906 = *Sphyaena hansfuchsi*.
- T - *Otolithus (Sphyaena) oblongus* FROST 1934 = «genus *Synodontidarum*» *davisi* (FROST 1925), see STINTON (1977, p. 84).
- T - *Spicara arambourgi* NOLF 1973.
- *Spicara edentula* STINTON 1980 = «genus aff. *Gazza*» *pentagonalis* (NOLF & LAPIERRE 1979).
- *Spicara elliptica* STINTON 1980 = doubtful species, see preliminary remarks to this list.
- *Spicara expansa* STINTON 1980 = «genus aff. *Gazza*» *pentagonalis* (NOLF & LAPIERRE 1979).
- T - *Spicara kugleri* NOLF 1977.
- *Spicara oblata* STINTON 1980 = *Spicara minsterensis* (FROST 1934).
- *Spicara ovata* STINTON 1980 = «genus *Percoideorum*» *ovatus*.
- *Spicara similis* STINTON 1980 = doubtful species, see preliminary remarks to this list.
- *Spicara spictata* STINTON 1980 = juvenile of *Spicara minsterensis* (FROST 1934).
- *Otolithus (Sternoptychidarum) polzi* SCHUBERT 1908 = doubtful species, see NOLF (1981, p. 170).
- *Stintonia brazosia* FRIZZELL & LAMBER 1961 = doubtful species (eroded holotype).
- *Stintonia creola* FRIZZELL & LAMBER 1961. Cannot be evaluated on the basis of the iconography (holotype not figured; only an eroded paratype).
- *Stintonia glendonensis* FRIZZELL & LAMBER 1961 = doubtful species (eroded holotype).
- *Stintonia furculus* STINTON 1977 = doubtful species (eroded juvenile).
- *Stolephorus productus* STINTON 1977 = doubtful species (eroded unique specimen).
- T - *Stromateus brailloni* NOLF 1975.
- *Symbolophorus haerecticus* BRZOBHATY & SCHULTZ 1978.
- T - *Symbolophorus meridionalis* STEURBAUT 1979.
- T - *Synanceia undata* STINTON 1966 = rejected species (eroded unique juvenile specimen).
- T - «genus *Synodontidarum*» *intermedius* NOLF & CAPPETTA 1976.
- T - *Synodus bisectus* STINTON 1977 ? = *Saurida recta* (FROST 1933).
- *Tachysurus oblongus* STINTON 1962. Cannot be evaluated on the basis of the iconography.
- *Thalassophryne korytnicensis* SMIGIELSKA 1979 = *Perulibatrachus korytnicensis*.
- *Thaumaturus amoeneburgensis* WEILER 1961.
- T - *Thaumaturus rhenanus* WEILER 1963 = «genus *Osmeridarum*» *rhenanus*, see WEILER (1972, p. 76).
- T - *Thaumaturus robustus* WEILER 1968 = «genus *Osmeridarum*» *robustus*, see WEILER (1972, p. 77).
- *Thaumaturus spannuthi* VOIGT 1934.
- T - *Toxotes undatus* STINTON 1966 = rejected species (unique eroded specimen).
- T - *Toxotes wheeleri* NOLF & LAPIERRE 1979.
- T - *Trachichthodes patterni* NOLF 1975 = *Centroberyx patterni*.
- *Trachichthodes pulcher* SCHWARZHANS 1980 = *Centroberyx pulcher*.
- *Trachichthodes salebrosus* STINTON 1958 = doubtful species (figured types are eroded *Centroberyx* otoliths, not identifiable at specific level).
- T - *Trachichthodes weileri* NOLF 1971 = *Centroberyx eocenicus* (FROST 1933).
- *Trachichthys abditus* STINTON 1978 = *Antigonia angusta* STINTON & NOLF 1970.
- *Otolithus (Trachini?) bellevoeyi* PRIEM 1908 = *Albula bellevoeyi*.
- *Otolithus (Trachini) biscissus* KOKEN 1884 = *Trachinus biscissus*.
- T - *Otolithus (Trachini) laevigatus* KOKEN 1888. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Trachini) seelandicus* KOKEN 1885 = «genus *Sirembinorum*» *seelandicus*.
- T - *Otolithus (Trachini) thevenini* PRIEM 1906 = doubtful species, see NOLF (1975, p. 208).
- T - *Otolithus (Trachini) verus* KOKEN 1891 = *Trachinus verus*.
- *Trachinoideorum sagittiformis* SCHWARZHANS 1980.
- *Trachinoideorum ultimus* SCHWARZHANS 1980.
- *Trachinus acutus* WEILER 1942 ? = *Trachinus lineolatus* FISCHER, 1884, see HUYGHEBAERT & NOLF (1979a, p. 79).
- T - *Trachinus angustus* GAEMERS & SCHWARZHANS 1973 = *Trachinus draco* (LINNAEUS 1758), see NOLF (1978b, p. 530).
- T - *Otolithus (Trachinus) aequalis* FROST 1934 = *Platycephalus janeti* (PRIEM 1911).
- T - *Otolithus (Trachinus) falcatus* FROST 1934 = *Trachinus falcatus*.
- *Trachinus gaemersi* SCHWARZHANS 1973 = *Platycephalus aff. janeti* (PRIEM 1911).
- *Otolithus (Trachinus) janeti* PRIEM 1911 = *Platycephalus janeti*, see NOLF (1973, p. 98).
- *Otolithus (Trachinus) miocenicus* BASSOLI & SCHUBERT, 1906 = *Trachinus draco* (LINNAEUS 1758).
- *Otolithus (Trachinus) mutabilis* KOKEN 1884 = *Trachinus biscissus* (KOKEN 1884).
- T - *Ot. (Trachinus) zibimicus* BASSOLI 1909 = «genus *Scorpaenidarum*» *zibimicus*.
- *Trachurus elegans* JONET 1973. Cannot be evaluated on the basis of the iconography.
- T - *Trachurus costatus* STINTON 1966 = doubtful species (eroded unique specimen, partly enclosed in a piece of phosphorite).
- T - *Trachurus miosensis* LAFOND GRELLETY in NOLF & STEURBAUT (1979).
- *Trachurus sanzi* BAUZA RULLAN 1957. Cannot be evaluated on the basis of the iconography.
- *Trachyrhynchus densus* STINTON 1957 = doubtful species (eroded unique specimen).
- T - *Trachyrincus minusculus* STINTON 1977 = rejected species, see NOLF (1978a, p. 225).
- T - «genus *Trichiuridarum*» *wongratanai* NOLF 1977.
- ? *Trichodon obesus* SCHWARZHANS 1980 = «genus *Acanthopterygiorum*» *obesus*.
- T - *Otolithus (Trigla) adjunctus* KOKEN 1891 = «genus *Labridarum*» *adjunctus*.
- T - *Otolithus (Trigla) asperoides* SCHUBERT 1906 = *Trigla asperoides*.



- *Trigla catalinae* SANZ & BAUZA RULLAN 1961. Cannot be evaluated on the basis of the iconography.
- *Trigla darderi* SANZ & BAUZA RULLAN 1961. Cannot be evaluated on the basis of the iconography.
- *Trigla falloti* BAUZA RULLAN 1958. Cannot be evaluated on the basis of the iconography.
- T - *Trigla? gibbosa* STINTON 1978 = doubtful species (an unique eroded otolith of a Perciform).
- *Trigla hemmoorensis* SCHWARZHANS & WEILER 1971 = *Pristigenys? rhombicus* (SCHUBERT 1906).
- *Trigla (?) hilberi* WEINFURTER 1952. Cannot be evaluated on the basis of the iconography.
- *Trigla konkensis* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- *Trigla miocenicus* POBEDINA 1954. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Trigla) mirabilis* BASSOLI 1906 = «genus aff. *Lepidotrigla*» *mirabilis*.
- *Otolithus (Trigla) ovatus* FROST 1934. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Trigla) rhombicus* SCHUBERT 1906 = *Pristigenys rhombicus*, see STEURBAUT (1979, p. 69).
- *Otolithus (Trigla) schuberti* POSTHUMUS 1923 = *Pristigenys rhombica* (SCHUBERT 1906), see STEURBAUT (1979, p. 69).
- *Otolithus (Triglae) cor* KOKEN 1888 = «genus *Triglidarum*» *cor*.
- *Otolithus (Triglae) ellipticus* KOKEN 1884 = *Lepidotrigla elliptica*, see NOLF (1977, p. 41).
- T - *Otolithus (Triglae) orcianensis* PIERAGNOLI 1919 = «genus *Sparidarum*» *orcianensis*.
- T - «genus *Triglidarum*» *giganteus* NOLF 1977.
- T - «genus *Triglidarum*» *parvulus* STEURBAUT 1979.
- *Tripterophycis immutatus* SCHWARZHANS 1980 = doubtful species (unique juvenile specimen lacking true diagnostic features).
- *Tripterophycis multituberosus* GAEMERS 1973 = *Physiculus* aff. *huloti* (POLL 1953), see STEURBAUT (1979, p. 63).
- *Tripterophycis multituberosus moravicus* BRZOBHATY & SCHULTZ, 1978 = *Physiculus* aff. *huloti* POLL 1953.
- *Trisopterus antwerpiensis* GAEMERS 1971 = *Gadiculus antwerpiensis*.
- *Trisopterus concavus* GAEMERS 1976 = *Trisopterus luscus* (LINNAEUS 1758).
- T - *Trisopterus elongatus* GAEMERS & SCHWARZHANS 1973? = *Trisopterus capelanus* (LACÉPÈDE 1800).
- *Trisopterus incognitus* GAEMERS 1976.
- *Trisopterus kasselensis* SCHWARZHANS 1974 = *Trisopterus elegans* (KOKEN 1884), see NOLF (1977, p. 28).
- T - *Trisopterus pliocenicus* GAEMERS & SCHWARZHANS 1973 = *Trisopterus esmarkii pliocenicus*, see NOLF (1977, p. 526).
- *Umbrina pecchiolii* LAWLEY 1876 = *Argyrosomus regius* (ASSO 1801).
- *Umbra praekrameri* WEINFURTER 1950.
- *Umbra valida* STINTON 1977.
- T - «genus *Umbridarum*» *ringeadei* STEURBAUT 1979.
- T - *Umbrina alsheimensis* WEILER 1963.
- T - *Otolithus (Umbrina?) planus* SCHUBERT 1902 = *Umbrina cirrhosa* (LINNAEUS 1758), see NOLF (1981, p. 171).
- *Otolithus (Umbrina) poeroeensis* VORSTMAN 1927. Cannot be evaluated on the basis of the iconography.
- T - *Otolithus (Umbrina) subcirrhosus* SCHUBERT 1902 = *Umbrina cirrhosa* (LINNAEUS 1758), see NOLF (1981, p. 171).
- *Uranoscopus ignavus* SCHWARZHANS 1980.
- *Uranoscopus pseudoacuminatus* SULC 1932 = *Oligopus pseudoacuminatus*, see NOLF (1980, p. 140).
- T - *Uranoscopus rotundatus* STINTON 1966 = rejected species (strongly eroded unique specimen).
- T - *Uranoscopus septentrionalis* NOLF 1978.
- *Uranoscopus simoni* SANZ 1950 = doubtful species (based on an atypical juvenile otolith).
- T - *Uroconger emarginatus* STINTON 1975 = rejected species (strongly eroded holotype).
- *Uroconger eocaenicus* SULC 1932 = «genus *Congridarum*» *eocaenicus*.
- *Uroconger eocaenicus rostrata* SULC 1932 = «genus *Congridarum*» *eocaenicus* (SULC 1932).
- T - *Uroconger incisurus* STINTON 1975 = doubtful species (strongly eroded unique specimen).
- *Uroconger transversus* SULC 1932 = *Hildebrandia transversa*.
- T - *Uroconger validus* STINTON 1966 = «genus *Congridarum*» *validus*.
- *Usacaranx declivis* STINTON 1980. Cannot be evaluated on the basis of the iconography.
- *Usacaranx varicosus* STINTON 1980 = doubtful species, see preliminary remarks to this list.
- T - «genus aff. *Valenciennellus*» *kotthausi* STEURBAUT 1979.
- *Otolithus vastus* SCHRÖDER 1956. Cannot be evaluated on the basis of the iconography.
- *Vorhisia vulpes* FRIZZELL 1965 = «genus *Siluriformorum*» *vulpes*.
- *Waitakia robusta* SCHWARZHANS 1980 = «genus *Hemero-coetinarum*» *robustus*.
- *Weileria brandonis* FRIZZELL & LAMBER 1961 = doubtful species (eroded holotype).
- *Weileria cajun* FRIZZELL & LAMBER 1961 = «genus *Myripristinarum*» *cajun*.
- *Weileria louisiana* FRIZZELL & LAMBER 1961 = doubtful species (eroded holotype).
- T - *Xenistius aculeatus* STINTON 1966 = «genus *Pomadasyidarum*» *ovalis* (STINTON 1957).
- T - *Otolithus (Xenodermichthys?) catulus* SCHUBERT 1908 = *Bregmaceros catulus*.
- T - *Xiphiurus nodosus* STINTON 1977 = rejected species, see NOLF (1980, p. 140).



# Index Generum

(Annotated list . . . not included)

*Abudefduf* 90, 92  
*Acanthoclinus* 80, 81  
*Acanthodes* 35  
*Acanthonus* 17  
*Acanthoperca* 33, 83  
*Acanthopterygiorum* 105  
*Acanthurus* 100  
*Acentrogobius* 98  
*Achirus* 104  
*Acipenser* 4, 37  
*Acropoma* 82, 83  
*Acropomidarum* 82  
*Actuariolum* 31  
*Adioryx* 13, 71, 72  
*Agonus* 79  
*Albatrosia* 62, 63  
*Albula* 30, 32, 39, 40  
*Albulidarum* 40  
*Albuloideorum* 30, 40, 41  
*Alcockia* 16  
*Aldrovandia* 40, 41  
*Alepisaurus* 55  
*Alepocephalus* 50  
*Alloctytus* 73  
*Allomorone* 30, 31  
*Allosmerus* 49  
*Alosa* 46  
*Amanses* 105  
*Ambassis* 80  
*Amblyopsis* 57, 58  
*Amblypterus* 33  
*Amia* 4, 33, 37  
*Ammodytes* 98  
*Ampheristus* 33, 64, 66  
*Amphiprion* 90, 92  
*Amphistichus* 90  
*Anabas* 101, 102  
*Anableps* 68, 69  
*Anarhichas* 96, 97  
*Anarrhichthys* 96  
*Anchoa* 45  
*Anguilla* 41, 42  
*Anisochromis* 80, 81  
*Anisotremus* 86  
*Anomalops* 71, 72  
*Anoplogaster* 8, 70  
*Anoplopoma* 77  
*Anotopterus* 55  
*Antennariidarum* 57  
*Antennarius* 57, 58  
*Antigonia* 73  
*Anthracoperca* 33  
*Aphanius* 68  
*Aphanophus* 100, 101  
*Aphredoderus* 57, 58  
*Aploactis* 77  
*Aplochiton* 50, 51  
*Aplodactylus* 91, 92  
*Apogon* 7, 11, 13, 33, 55, 82, 83  
*Apogonidarum* 41, 43, 72, 82  
*Apomotis* 92

*Apsilus* 86  
*Arapaima* 38  
*Archaealbula* 31  
*Archaeolithus* 31  
*Archegadus* 31  
*Archemacrouroides* 31, 32  
*Archengraulis* 31  
*Arctoscopus* 94  
*Argentina* 49, 50, 52  
*Argyripinus* 51, 52  
*Argyropelecus* 51, 52  
*Argyrosomus* 88, 89  
*Ariidarum* 47, 48  
*Ariomma* 101  
*Arius* 47, 48  
*Ariosoma* 42, 43, 44  
*Arnoglossus* 11, 12, 103, 104  
*Arripis* 85  
*Artedius* 78  
*Astronestes* 52  
*Astronotus* 90, 91  
*Ateleopus* 74  
*Atherestes* 104  
*Atherina* 32, 68, 69  
*Atherinidarum* 68, 69  
*Atherinopsis* 18, 69  
*Aulopus* 53, 55  
*Aulorhynchus* 74, 75  
*Aulostomus* 74, 75  
*Australosomus* 33  
*Austrocentris* 31  
*Austrophycis* 59  
*Avocettina* 44, 45  
  
*Badis* 90, 91  
*Bairdiella* 6, 89  
*Balistapus* 105  
*Banjos* 80, 81  
*Barathrites* 17  
*Barathronus* 64, 67  
*Barbourisia* 69, 70  
*Bathyclupea* 89, 90  
*Bathygadus* 62, 63  
*Bathylagus* 50  
*Bathypterois* 53, 55  
*Bathysaurus* 53, 55  
*Bauzaia* 30, 31, 66  
*Belone* 67, 68  
*Belontia* 101, 102  
*Bembrops* 94, 95  
*Benthocomectes* 66  
*Benthosema* 55, 56  
*Berycidarum* 55, 66, 72, 80  
*Beryx* 7, 71, 72  
*Blenniidarum* 96  
*Blicca* 47, 48  
*Bothidarum* 104  
*Bothus* 14, 15  
*Bovichtus* 96  
*Brachydeuterus* 86, 87  
*Brama* 85



*Brazosiella* 31, 84  
*Bregmaceros* 33, 59, 60  
*Bregmacerotidarum* 59  
*Brosme* 61  
*Brosmophycis* 66  
*Brotula* 17, 64, 66  
*Brotulidarum* 59, 66, 67  
*Brycon* 47, 48  
*Buglossidium* 104  
*Bythites* 64, 67  
*Bythitinarum* 67

*Caesio* 86  
*Calamoichthys* 35  
*Calamus* 88  
*Callionymus* 98  
*Campylomormyrus* 38, 39  
*Cantharus* 88, 92  
*Caproidarum* 73  
*Capros* 73  
*Caracanthus* 77  
*Carangidarum* 86, 92  
*Caranx* 16, 84  
*Carapus* 63, 64  
*Caristius* 85  
*Cataetyx* 17  
*Caulolepis* 8  
*Caulophryne* 58, 59  
*Cebidichthys* 97  
*Centroberyx* 71, 72  
*Centrolophus* 100, 101  
*Centrophryne* 58, 59  
*Centropomidarum* 79  
*Centropomus* 18, 79, 80  
*Centropristes* 80, 81  
*Cepola* 91, 92  
*Centropyge* 86  
*Cepolidarum* 92  
*Ceratias* 58, 59  
*Ceratoscopelus* 56  
*Cetostomus* 70  
*Chaenophryne* 58, 59  
*Chaeturichthys* 99  
*Champscephalus* 96  
*Champsodon* 94, 95  
*Chanda* 79, 80  
*Chandidarum* 80  
*Channa* 75  
*Chanos* 47, 48  
*Chauliodus* 52, 53  
*Chaunax* 57, 58  
*Cheilodactylus* 91, 92  
*Cherublemma* 24, 25  
*Chichlasoma* 90, 91  
*Chilara* 64  
*Chilorhinus* 41, 42  
*Chirocentrus* 17, 46, 47  
*Chirodorus* 67  
*Chirolophis* 97  
*Chironemus* 91, 92  
*Chitonotus* 78  
*Chlorophthalmus* 11, 13, 53, 55  
*Chondrosteiformorum* 37  
*Cirrhichthys* 91, 92  
*Cirrhitis* 92  
*Citharichthys* 103, 104  
*Citharopsettodes* 31, 104  
*Citharus* 102, 103  
*Claybornichthys* 31  
*Cleidogonia* 31  
*Cleidopus* 31, 72  
*Clupea* 33, 46, 47  
*Clupeidarum* 32, 46, 47, 106  
*Coelorhynchus* 62, 63  
*Colisa* 102  
*Colliolus* 31, 62  
*Coloconger* 16, 41, 43  
*Comephorus* 77, 78  
*Conger* 31, 41, 42, 43, 44  
*Congeris* 43  
*Congermuraena* 43, 44  
*Congiopodus* 77, 78  
*Congridarum* 42, 43, 44  
*Congrogadus* 96, 97  
*Congroideorum* 44  
*Congromuraena* 42  
*Cololabis* 67, 68  
*Cookeolus* 82, 83  
*Coracinus* 89, 90  
*Coregonus* 49  
*Corvina* 88  
*Coryphaena* 84, 85  
*Coryphaenoides* 33, 62, 63  
*Coryphopterus* 99  
*Cottidarum* 79  
*Cottoideorum* 79  
*Cottus* 78  
*Ctaenosciaena* 88, 89  
*Ctenotrypauchen* 98, 100  
*Cyclopterus* 77, 79  
*Cyema* 44, 45  
*Cymatogaster* 90, 91  
*Cynoglossus* 103, 104  
*Cynoscion* 10, 11, 17, 89  
*Cyprinodon* 68, 69  
*Cyprinodontidarum* 68  
*Cyprinodontoideorum* 69

*Dactyloptena* 79  
*Dactyloscopus* 94, 95  
*Dannevigia* 66  
*Dapalis* 33, 79, 80  
*Dentex* 33, 82, 86, 87, 88  
*Denticeps* 45, 46  
*Derichthys* 44, 45  
*Dermatopsis* 17, 67  
*Diaphus* 9, 11, 17, 18, 55, 56  
*Dibranchus* 58, 59  
*Diceratias* 58, 59  
*Dicologoglossa* 104  
*Dicrolene* 14, 15  
*Dinematichthyinorum* 64, 67  
*Diplacanthopoma* 67  
*Diplecogaster* 57, 58  
*Diplodus* 87, 88  
*Dipulus* 16, 17  
*Dirtmus* 71  
*Ditropichthys* 70  
*Dolichopteryx* 50  
*Dorosoma* 46  
*Drepane* 89, 90  
*Dysommia* 41, 42



*Echelus* 44  
*Echeneis* 84  
*Echiodon* 17, 64  
*Egregioberyx* 31, 72  
*Ekokenia* 30, 31  
*Elassodiscus* 77, 79  
*Electrona* 55, 56  
*Eleotrinarum* 98  
*Elonichthys* 33  
*Elopidarum* 39  
*Elopiiformorum* 30, 39  
*Elopomorphorum* 45  
*Elops* 7, 39  
*Emmelichthys* 85, 86  
*Encheliophis* 64  
*Engraulis* 45, 46  
*Enophrys* 78  
*Enoplosus* 89, 90  
*Ensigadus* 31  
*Eoalbula* 31  
*Eocottus* 99  
*Eopsetta* 104  
*Eosolea* 30, 31  
*Epigonus* 82, 83  
*Epinephelus* 17, 81  
*Esox* 50, 51  
*Etrumeus* 46  
*Eucitharus* 102, 103  
*Euclichthys* 61  
*Eurypharynx* 11, 12, 44, 45  
*Euteleosteorum* 105  
*Euxiphipops* 89, 90  
*Evermanella* 55  
*Exallias* 96  
*Exocoetus* 67, 68  
  
*Felichthys* 33  
*Fierasfer* 64, 67  
*Fistularia* 74, 75  
  
*Gadi* 32, 67  
*Gadichthys* 31, 61  
*Gadiculus* 23, 24, 31, 32, 60, 61, 62  
*Gadidarum* 30, 31, 32, 55, 60, 61, 62, 64, 66, 67  
*Gadophycis* 31  
*Gadopsis* 91, 92  
*Gadus* 17, 18, 31, 32, 59, 60, 61, 62  
*Gaidropsarus* 60, 61  
*Galaxias* 50, 51  
*Gasterosteus* 74, 75  
*Gavialiceps* 44, 45  
*Gazza* 85  
*Genartina* 30, 31  
*Genyonemus* 89  
*Genypterus* 16, 17, 24, 25, 64, 67  
*Gephyroberyx* 71  
*Gerres* 85, 86  
*Gibberichthys* 69, 70  
*Gigantactis* 58, 59  
*Gibbonsia* 97  
*Gigantura* 53, 55  
*Glaucosoma* 80, 81  
*Glyptocephalus* 104  
*Glyptophidium* 17, 19, 66  
*Gnathonemus* 38, 39  
*Gnathophis* 42, 43, 44  
*Gobiidarum* 67, 99  
  
*Gobioides* 98, 99  
*Gobius* 33, 98, 99  
*Gonorhynchus* 47, 48  
*Gonostoma* 51, 52  
*Gonostomatidarum* 52  
*Gramma* 80, 81  
*Grammistes* 80, 81  
*Gymnodraco* 96  
*Gymnoscopelus* 56  
*Gymnothorax* 11, 12, 44  
*Gyrosteus* 37  
  
*Haemulon* 12, 14, 86  
*Haliophis* 96  
*Halobatrachus* 57, 58  
*Harengula* 46  
*Harpadon* 53, 55  
*Helostoma* 101, 102  
*Hemerocoetes* 95  
*Hemerocoetinarum* 95  
*Hemiramphidarum* 67  
*Hemiramphus* 67  
*Hepthocara* 67  
*Heterenchelyidarum* 31, 41  
*Heterenchelys* 42  
*Heterotis* 38  
*Hexagrammos* 77  
*Hildebrandia* 41, 42, 43  
*Hiodon* 38, 39  
*Hippoglossoides* 14, 15, 104  
*Holapogon* 82, 83  
*Holocentrinarum* 72  
*Holocentrus* 71, 72  
*Hoplichthys* 77, 78  
*Hoplobrotula* 16, 17, 19, 64, 66, 67  
*Hoplostethus* 8, 9, 49, 71  
*Howella* 82, 83  
*Hygophum* 56  
*Hygophus* 56  
*Hymenocephalus* 31, 61, 69  
*Hyperoglyphe* 101  
*Hyperoplus* 98  
*Hyperprosopon* 90  
*Hypomesus* 49  
*Hypopleuron* 17  
*Hypsoblennius* 96, 97  
  
*Icelinus* 78  
*Icelus* 77, 78  
*Ichthyococcus* 52  
*Idiacanthus* 52, 53  
*Ilisha* 46  
*Ipnops* 53, 55  
*Isacia* 86  
*Isopsetta* 104  
*Istiophorus* 100, 101  
  
*Jefitchia* 31  
*Jordanicus* 64  
  
*Kali* 94, 95  
*Karrerichthys* 32, 62  
*Kathetostoma* 94, 95  
*Kneria* 47  
*Konosirus* 46  
*Krebsiella* 32  
*Kryptophaneron* 71, 72



*Kublia* 80, 82  
*Kurtus* 98, 100  
  
*Labracoglossa* 83, 84  
*Labrax* 86  
*Labridarum* 93  
*Labrisomus* 97  
*Labrus* 93  
*Lactarius* 31, 83, 84  
*Lagodon* 88  
*Lampadena* 56  
*Lampanyctodes* 56  
*Lampanyctus* 55, 56  
*Lampichthys* 56  
*Lampris* 73, 74  
*Larimus* 89  
*Lates* 81  
*Latimeria* 3, 4, 106, 107  
*Latirhynchus* 32  
*Latris* 91, 92  
*Lebistes* 68  
*Leiognathidarum* 85  
*Leiognathus* 85  
*Lemkea* 42  
*Lepidogobius* 99  
*Lepidopus* 100  
*Lepidorhombus* 14, 15, 103  
*Lepidotrigla* 77, 92  
*Lepidosiren* 4, 106, 107  
*Lepisosteus* 4, 33, 37  
*Lepophidiinorum* 24, 25, 64  
*Lepophidium* 9, 10, 13, 24, 25, 64, 66  
*Leptolepidarum* 38  
*Leptocottus* 78  
*Leptolepis* 33, 38, 106  
*Lepomis* 80, 82  
*Leptoscopus* 94, 95  
*Lethops* 99  
*Lethrinus* 86, 87  
*Leucicorus* 17  
*Leuresthes* 18, 69  
*Limanda* 104  
*Liparis* 77, 79  
*Lithognathus* 88  
*Liza* 92, 93  
*Lo* 100  
*Lobianchia* 56  
*Lobotes* 85, 86  
*Lonchistium* 94  
*Lophiidarum* 57  
*Lophius* 4, 57, 58, 59  
*Lophotus* 73, 74  
*Lucifuga* 17  
*Luciobrotula* 17  
*Lutianus* 85, 86  
*Luvarius* 100, 101  
*Lycoclupea* 32  
*Lycodes* 60, 62  
*Lycodopsis* 62  
*Lyconectes* 97  
*Lyopsetta* 104  
*Lycoptera* 33, 39  
*Lycopteridarum* 106  
  
*Macrorhamphosus* 74, 75  
*Macrouridarum* 63  
*Macrourus* 10  
  
*Macruridarum* 63, 66  
*Macruronus* 61  
*Macrurulus* 32, 61  
*Macrurus* 32, 59, 63  
*Malacanthus* 83, 84  
*Malacocottus* 78  
*Malacosteus* 52, 53  
*Maorigadus* 32, 63  
*Mastacembelus* 102  
*Maurolicus* 6, 51, 52  
*Maxwelliella* 32, 44  
*Medialuna* 89, 90  
*Megalopidarum* 39  
*Megalops* 39  
*Melamphaes* 69, 70  
*Melamphaidarum* 69  
*Melanocetus* 58, 59  
*Melanogrammus* 61  
*Melanonidarum* 62  
*Melanonus* 32, 60, 62  
*Melanostomias* 52  
*Melanotaenia* 68, 69  
*Mene* 85  
*Menticirrhus* 89  
*Merlangiogadus* 32, 61  
*Merlangius* 8, 9, 60, 61  
*Merlangus* 32, 61  
*Merluccii* 61  
*Merlucciinarum* 60, 61  
*Merluccius* 5, 18, 31, 60, 61  
*Metalbula* 32  
*Microgadaculus* 32  
*Microgadus* 62  
*Micromesistius* 32, 60, 61, 62  
*Micropterus* 80, 82  
*Microstomus* 104  
*Mimia* 33  
*Minous* 77  
*Mola* 105  
*Molva* 61  
*Monocentris* 31, 71, 72, 73, 92  
*Monodactylus* 87, 90  
*Monomitopus* 66  
*Mora* 59, 60  
*Moridarum* 59  
*Moringua* 41, 42, 44  
*Morone* 33, 80, 81  
*Morrhua* 32  
*Mugil* 93  
*Mugilidarum* 93  
*Mullus* 89  
*Mupus* 101  
*Muraena* 41, 42  
*Muraenesox* 41, 42  
*Muraenolepis* 59, 60  
*Mycteroperca* 80, 81  
*Myctophidarum* 55, 56  
*Myctophum* 10, 55, 56  
*Myoxocephalus* 11, 12, 13, 77, 78  
*Myripristinarum* 72  
*Myripristis* 71, 72  
  
*Nansenia* 50  
*Naso* 100  
*Navodon* 105  
*Nebris* 89  
*Nemipterus* 85, 86



- Neobythites* 17, 19, 64, 66  
*Neobythitarum* 64, 66, 67  
*Neobythitorum* 17, 23, 64, 66  
*Neoceratodes* 5  
*Neocolliolus* 32  
*Neoditrema* 92  
*Neoscombrops* 82  
*Neoscopelus* 56, 57  
*Nessorhamphus* 41, 42  
*Nezumia* 11, 62, 63  
*Nibeia* 9  
*Nolfophidium* 32  
*Normaninchthys* 77, 78  
*Notacanthus* 40, 41  
*Notesthes* 75  
*Notogoneus* 33, 48  
*Notograptus* 96, 97  
*Notolynchus* 55, 56  
*Notopterus* 38, 39  
*Notoscopelus* 55, 56, 57  
*Notothenia* 62  
*Novumbra* 33, 51  
*Nyctophus* 33, 56
- Oblada* 88  
*Odax* 93  
*Odontesthes* 68, 69  
*Ogcocephalidarum* 59  
*Ogcocephalus* 59  
*Ogilbia* 64, 67  
*Oligopus* 16, 64, 66, 67  
*Omosudis* 54, 55  
*Oncorhynchus* 48, 49  
*Onos* 61  
*Onuxodon* 17, 64  
*Ophichthyidarum* 44  
*Ophichthus* 11, 12, 44, 45  
*Ophidiidarum* 66, 67  
*Ophidiinorum* 64  
*Ophidion* 17, 64, 66  
*Ophidium* 43, 64, 66, 67  
*Ophidipterus* 32, 67  
*Ophiodon* 77  
*Ophistonema* 46, 47  
*Opisthoproctus* 50  
*Opistognathidarum* 94  
*Opistognathus* 94  
*Oplegnathus* 90, 91  
*Optivus* 71  
*Orthopristis* 86  
*Orvikuina* 37  
*Oryzias* 68  
*Osmeridarum* 49  
*Osmerus* 31, 49  
*Osteoglossidarum* 38  
*Osteoglossum* 38  
*Ostracion* 105  
*Otolithus* 30  
*Otophidium* 64, 66  
*Owstonia* 91, 92  
*Oxyjulis* 93
- Pagelli* 88  
*Pagellus* 9, 10, 11, 87, 88  
*Pagrosomus* 79  
*Pagrus* 88  
*Palaealbula* 32
- Palaeoesox* 33, 51  
*Palaeogadus* 33, 61  
*Palaeomorhua* 32  
*Palaeoniscoid type «A»* 27, 35, 36, 37  
*Palaeoniscoid type «B»* 27, 36, 37  
*Palaeoniscum* 33, 37  
*Palaeoraniceps* 32, 61  
*Palaeumbra* 32  
*Paleosciaena* 32  
*Pantodon* 38  
*Panturichthys* 41, 42  
*Parabatmya* 32, 43  
*Paraconger* 41, 43  
*Paralabrax* 18, 81  
*Paralactarius* 32, 84  
*Paralepis* 53, 55  
*Paralichthys* 103, 104  
*Parapercis* 94, 95  
*Paraplagusia* 104  
*Parapristipoma* 86  
*Parascombrops* 82, 83  
*Parastromateus* 84, 85  
*Patratrachichthys* 71  
*Paratrisopterus* 33, 62  
*Paraxenomystax* 16  
*Parazen* 72, 73  
*Parophidium* 17  
*Parophrys* 104  
*Parupeneus* 87, 89  
*Parvilux* 57  
*Pegusa* 104  
*Pelates* 80, 81  
*Pellona* 46  
*Pempheris* 87, 89  
*Pennahia* 9, 89  
*Pentapodus* 86, 87  
*Pentaprion* 86  
*Perca* 83  
*Percidarum* 81, 82, 83, 86, 88, 92, 93, 102  
*Perciformorum* 102  
*Percoideorum* 92  
*Percopsis* 57, 58  
*Peristedion* 77  
*Perulibatrachus* 57  
*Phanerodon* 11, 12, 90  
*Pholidichthys* 97  
*Pholidophorus* 38, 106  
*Pholis* 97  
*Photichthyidarum* 52  
*Photichthys* 52  
*Phrynorhombus* 103  
*Phycis* 61, 62, 66  
*Physiculus* 59  
*Pimelometopon* 93  
*Platessae* 43  
*Platichthys* 104  
*Platycephalus* 77, 78  
*Platysepta* 32  
*Plecoglossus* 49  
*Plectrypops* 72  
*Plesiops* 80, 81  
*Pleuronectes* 4, 103, 104  
*Pleuronectus* 42  
*Pleuronectidarum* 104  
*Pleuronectiformorum* 105  
*Pleuronectoideorum* 104  
*Pleuronichthys* 104



*Pneumatophorus* 5, 100  
*Podothecus* 77, 79  
*Poecilia* 68, 69  
*Polydactylus* 93  
*Polyipnus* 51, 52  
*Polymetme* 52  
*Polynemidarum* 93  
*Polymixia* 38, 70, 71, 72, 92  
*Polyodon* 37  
*Polyperca* 32, 81  
*Polypterus* 4  
*Pomacanthus* 90  
*Pomadasyidarum* 86, 87  
*Pomadasyis* 8, 86, 87  
*Pomatomus* 84  
*Pomatoschistus* 99  
*Pomoxis* 80, 82  
*Pontinus* 75, 77  
*Porichthys* 55, 57  
*Poromitra* 69, 70  
*Praehoplichthys* 32, 78  
*Pranesus* 69  
*Prealbula* 32  
*Preophidium* 32, 67  
*Priacanthus* 82, 83  
*Primaevomesus* 32  
*Prionotus* 18, 77, 102  
*Pristigenys* 82, 83  
*Prolebias* 33, 68, 69  
*Proraniceps* 32  
*Protalbula* 32  
*Protocolliolus* 32  
*Protomyctophum* 57  
*Protopterus* 5, 106, 107  
*Psettodes* 102, 103  
*Pseudochromis* 80, 81  
*Pseudocolliolus* 32, 61  
*Pseudogramma* 80, 81  
*Pseudophichthys* 43  
*Pseudoplesiops* 80, 81  
*Pseudoscarus* 57  
*Pseudoxenomystax* 44  
*Psychrolutes* 77, 78  
*Pteralbula* 32  
*Pterothrissus* 40  
*Pycnocraspedium* 17  
  
*Rachycentron* 84  
*Radulinus* 78  
*Raniceps* 18, 32, 59, 60, 61, 62  
*Rathbunella* 94  
*Regalecus* 74  
*Retropinna* 50, 51  
*Rhacochilus* 90  
*Rhabdoderma* 33, 107  
*Rhadinichthys* 33  
*Rhechias* 16, 44  
*Rhionemus* 60  
*Rhombus* 103  
*Rhynchoconger* 43  
*Rhynchocymba* 44  
*Roncador* 89  
*Rondeletia* 69, 70  
*Ruvettus* 100, 101  
  
*Sebastes* 75, 76  
*Scorpaena* 75  
  
*Scorpaenidarum* 75  
*Saccogaster* 67  
*Saccopharynx* 44, 45  
*Salmo* 3  
*Salvelinus* 3  
*Sardina* 16  
*Sardinella* 46  
*Saurida* 53, 55  
*Scarus* 93  
*Scatophagus* 89, 90  
*Sciaena* 87, 88, 89  
*Sciaenidarum* 31, 32, 66, 72, 88, 89  
*Sciaenops* 88  
*Scomberomorus* 17, 100, 101  
*Scombridarum* 83, 100  
*Scombrops* 81, 92  
*Scopelarchus* 55  
*Scopeloberyx* 69  
*Scopelogadus* 69, 70  
*Scopelosaurus* 53, 55  
*Scopelopsis* 56  
*Scopelus* 55, 56  
*Scophthalmus* 103  
*Scorpaena* 75  
*Scorpaenichthys* 78  
*Scorpaenoideorum* 77  
*Searsia* 50  
*Selachophidium* 16  
*Selar* 84  
*Selenaspis* 48  
*Seriphus* 89  
*Serranidarum* 81, 82, 86, 92  
*Serranus* 10, 81, 86, 88  
*Serrivomer* 44, 45  
*Setipinna* 45, 46  
*Signata* 32, 67  
*Sillago* 83, 84  
*Siluriformorum* 48  
*Simenchelys* 44, 45  
*Sirembinorum* 66  
*Sirembo* 17, 32, 64, 66  
*Smerdis* 79, 80  
*Snyderidia* 63, 64  
*Solea* 8, 31, 33, 103, 104  
*Soleidarum* 104  
*Sparidarum* 43, 72, 80, 82, 84, 88  
*Sparus* 84  
*Sphaeramia* 82, 83  
*Sphaeroides* 105  
*Sphaeronchus* 32, 105  
*Sphyraena* 93  
*Spicara* 86, 92  
*Spirinchus* 49  
*Squalogadus* 62, 63  
*Stenatherina* 69  
*Stenobranchius* 18, 57  
*Stephanoberyx* 70  
*Stintonia* 32  
*Stomias* 52, 53  
*Stromateus* 101  
*Stylephorus* 74  
*Sudis* 53, 55  
*Symbolophorus* 56, 57  
*Symphurus* 105  
*Symphysodon* 90, 91  
*Synapobranchus* 44, 45  
*Synbranchus* 75



*Syngnathus* 75  
*Synodus* 53, 55

*Taenioconger* 41, 43  
*Taenioides* 98, 99  
*Tarletonbeania* 55, 56, 57  
*Taureophtidium* 17  
*Teleosteorum* 106  
*Tetragonurus* 101  
*Thalassophryne* 57  
*Thaumaturus* 33, 49  
*Theragra* 62  
*Thunnus* 16  
*Thymallus* 48, 49  
*Thyrsites* 100, 101  
*Tilapia* 90, 91  
*Trachichthodes* 72  
*Trachichthyidarum* 71  
*Toxotes* 89, 90  
*Trachini* 66, 78  
*Trachinocephalus* 53, 55  
*Trachinoideorum* 96  
*Trachinus* 94, 95  
*Trachurus* 84, 85  
*Trachyrhynchus* 62, 63  
*Trematomus* 96  
*Triacanthodes* 105  
*Trichiuridarum* 100  
*Trichonotus* 94, 95  
*Trigla* 33, 77, 82, 88, 93  
*Triglidarum* 77  
*Tripothurus* 57

*Trisopterus* 9, 10, 23, 31, 32, 33, 60, 61, 62  
*Tropheus* 90, 91  
*Typhlonus* 17

*Umbra* 50, 51  
*Umbridarum* 51  
*Umbrina* 87, 88, 89  
*Uranoscopus* 67, 94, 95  
*Uroconger* 43, 44

*Valenciennellus* 51, 52  
*Velifer* 73, 74  
*Venefica* 41, 42  
*Ventrifossa* 9, 10, 11, 63  
*Vinciguerria* 52  
*Vorischia* 32, 48

*Waitakia* 32  
*Weileria* 32, 72

*Xenistius* 86  
*Xenodermichthys* 59  
*Xenolepidichthys* 73  
*Xiphias* 100, 101  
*Xiphister* 97

*Zanclistiis* 89, 90  
*Zanclus* 100  
*Zaniolepis* 77, 78  
*Zenion* 72, 73  
*Zeus* 72, 73  
*Zu* 73, 74



## Index of higher Categories

- Acanthoclinidae 81  
Acanthodii 35  
Acanthomorpha 57  
Acanthopterygii 67, 105  
Acanthuridae 100  
Acanthuroidei 100  
Acipenseridae 37  
Acipenseriformes 37  
Acropomatidae 82  
Actinistia 4, 106, 107  
Actinopteri 4, 35  
Actinopterygii 4, 35  
Adrianichthyidae 68  
Agonidae 79  
Albulidae 39  
Albuloidea 39, 40  
Albuloidei 39, 40  
Alepisauridae 55  
Alepisauroida 53  
Alepisauroidi 53  
Alepocephalidae 50  
Alepocephaloidea 50  
Amblyopsidae 57  
Amblyopsoidei 57  
Amiiformes 37  
Ammodytidae 98  
Ammodytoidei 98  
Amphipnoidae 75  
Anabantidae 101  
Anabantoidei 101, 102  
Anablepidae 69  
Anarhichadidae 96  
Anguillidae 41  
Anguilliformes 16, 39  
Anguilloidea 41, 42, 43, 45  
Anguilloidei 41  
Anisochromidae 81  
Anomalopidae 72  
Anoplogasteridae 70  
Anoplopomatidae 77  
Anotophysi 48  
Anotopteridae 55  
Antennariidae 57  
Antennarioidei 57  
Aoteidae 44  
Aphredoderidae 57  
Aphredoderoidei 57  
Aploactinidae 77  
Aplochitonidae 50  
Aplodactylidae 91  
Apogonidae 82  
Apogoninae 82  
Argentinidae 49  
Argentinoidei 49, 50  
Arripidae 85  
Astronesthidae 52  
Ateleopodidae 74  
Ateleopodoidei 74  
Atherinidae 7, 69  
Atheriniformes 67, 68  
Atherinoidei 69  
Atherinomorpha 67  
Aulopidae 53  
Aulopiformes 53  
Aulopoidei 53  
Aulorhynchidae 74  
Aulostomidae 74  
Aulostomoidei 74  
Aves 3  
Balistidae 105  
Balistoidei 105  
Banjosidae 81  
Barbourisiidae 69  
Bathyclupeidae 90  
Bathydraconidae 96  
Bathylagidae 50  
Bathymasteridae 94  
Bathyprionidae 50  
Bathypteroidae 53  
Bathysauridae 53  
Batrachoididae 57  
Batrachoidiformes 57, 58  
Belonidae 67  
Belontiidae 101  
Berycidae 72  
Beryciformes 45, 69, 70, 71, 105, 106  
Berycoidei 71  
Blenniidae 96  
Blennioidei 96  
Bothidae 103  
Bovichthyidae 96  
Brachionichthyidae 57  
Bramidae 85  
Branchiostegidae 83  
Bregmacerotidae 59  
Brosomphycinae 67  
Brotulinae 64  
Bythitidae 67  
Bythitinae 67  
Bythitoidei 67  
Callionymidae 98  
Callionymoidei 98  
Caproidae 73  
Caracanthidae 77  
Carangidae 84  
Carapidae 63  
Caristiidae 85  
Caulophrynidae 59  
Centrarchidae 82  
Centrisciidae 74  
Centrolophidae 100  
Centrophrynidae 59  
Centropomidae 79  
Cepolidae 91  
Ceratiidae 59  
Ceratoidei 59  
Cetomimidae 70  
Citharidae 102  
Chaenopsidae 97  
Chaetodontidae 90



Champsodontidae 95  
 Chandidae 79  
 Chanidae 48  
 Channichthyidae 96  
 Channidae 75  
 Channiformes 75  
 Chanoidei 48  
 Characidae 48  
 Characiformes 48  
 Characiphysi 48  
 Chauliodontidae 53  
 Chaunacidae 57  
 Chaudhuriidae 102  
 Cheilodactylidae 91  
 Cheimarrichthyidae 95  
 Chiasmodontidae 95  
 Chichlidae 90  
 Chironemidae 91  
 Chlorophthalmidae 53  
 Chondrostei 4, 35, 37  
 Chondrichthyes 4  
 Cirrhitidae 91  
 Cladistia 4, 35  
 Clinidae 97  
 Clupeidae 4, 46  
 Clupeiformes 45  
 Clupeocephala 45  
 Clupeoidei 45  
 Clupeomorpha 45, 46  
 Comephoridae 78  
 Congiopodidae 78  
 Congiopodoidei 78  
 Congridae 7, 16, 41, 43  
 Congrogadidae 96  
 Coracinidae 90  
 Coryphaenidae 85  
 Cottidae 78  
 Cottocomephoridae 78  
 Cottoidei 78, 79  
 Cottunculidae 78  
 Creediidae 95  
 Ctenosquamata 55  
 Ctenothrissiformes 57  
 Cyclopteridae 79  
 Cyclosquamata 53, 55  
 Cyclostomata 4  
 Cyematidae 44  
 Cynoglossidae 8, 104  
 Cyprinidae 48  
 Cypriniformes 48  
 Cypriniphysi 48  
 Cyprinodontidae 7, 68  
 Cyprinodontoidei 68, 69

Dactylopteridae 79  
 Dactylopteriformes 79  
 Dactyloscopidae 95  
 Denticinae 88  
 Denticipitidae 45  
 Denticipitoidei 45  
 Derichthyidae 44  
 Diceratiidae 59  
 Dinematichthyini 67  
 Diodontidae 105  
 Dipnoi 4, 106, 107  
 Diretmidae 71

Dysommataidae 44  
 Dysommatinidae 41

Echeneidae 84  
 Elopidae 7, 39  
 Elopiformes 39  
 Elopocephala 39  
 Elopomorpha 39, 45  
 Embiotocidae 90  
 Emmelichthyidae 85  
 Engraulididae 45  
 Enoplosidae 90  
 Ehippididae 90  
 Epigoninae 82  
 Esocidae 50  
 Esocoidei 50, 51  
 Eurypharyngidae 44  
 Eurypterygii 53  
 Eutaeniophoridae 70  
 Euteleostei 48, 105  
 Evermannellidae 55  
 Exocoetidae 67  
 Exocoetoidei 67

Fistulariidae 74  
 Formionidae 85

Gadidae 7, 8, 20, 59  
 Gadiformes 8, 59, 60  
 Gadiniae 61  
 Gadoidei 59  
 Gadopsidae 91  
 Galaxiidae 50  
 Galaxioidei 50, 51  
 Gasterosteidae 74  
 Gasterosteiformes 74, 75  
 Gasterosteoidi 74  
 Gempylidae 100  
 Gerreidae 86  
 Gibberichthyidae 69  
 Gigantactinidae 59  
 Giganturidae 53  
 Ginglymodi 4, 37  
 Glaucosomatidae 81  
 Gnathostomata 4, 35  
 Gobiesocidae 57  
 Gobiesociformes 57, 58  
 Gobiidae 7, 98  
 Gobioidi 98  
 Gobioididae 98  
 Gonorhynchidae 48  
 Gonorhynchiformes 48  
 Gonorhynchoidei 48  
 Gonostomatidae 52  
 Gonostomatoidei 51, 52  
 Goodeidae 69  
 Grammicolepididae 73  
 Grammistidae 81  
 Gregoryinidae 82  
 Gymnarchidae 39

Halecomorpha 4, 37  
 Halecostomi 4, 37  
 Halosauridae 41  
 Halosauroidi 41  
 Harpadontidae 53  
 Helostomatidae 101