

71 **Anguillidae**

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 1

Sp: 1

- 71.1 **ANGUILLA** Schrank, 1798 Gender: F
 Fauna Boica . . . , 1 (2) : 304 (type: *Muraena anguilla* Linnaeus, 1758, by orig. design.).
Terpolepis McClelland, 1844, *J. nat. Hist. Calcutta*, 5 (18) : 225 (type: *Anguilla brevirostris* McClelland, 1844, by orig. design., 'Indopacific').
Tribranchus (Peters) Müller, 1844, *Abh. preuss. Akad. Wiss. Berl.* : 193 (type: *Tribranchus anguillar* (Peters) Müller, 1844, by monotypy, 'Indopacific').
- 71.1.1 ***Anguilla anguilla*** (Linnaeus, 1758)
Muraena anguilla Linnaeus, 1758, *Syst. Nat.* . . . , ed. X : 245 ('Habitat in Europa'). Type lost.
Muraena anguilla: Lacepède, 1800, 2 : 226 | Schneider in Bl. Schn., 1801 : 486 | Risso, 1810 : 89 | Pallas, 1814, 3 : 71 | Ekström, 1831 : 285 | Nilsson, 1855 : 661 | Gronovius, 1864 : 18 | Fowler, 1936 : 262, 1208 | Lozano Rey, 1947 : 503, fig. 157–163.
Anguilla vulgaris Shaw, 1803, *Gen. Zool.* . . . , 4 : 15, tab. 1, a subjective synonym of *Muraena anguilla* Linnaeus.
Anguilla vulgaris: Turton, 1807 : 87 | Cuvier, 1817, 2 : 231 | Yarrell, 1836, 1 : 381 | Drewsen, 1837, 1 : 21 | Bonaparte, 1845: no. 316 | Costa, 1850 : 52, pl. 55, 59 (fig. 1a–b) | Canestrini, 1866 : 177 | Günther, 1870, 8 : 28 | Schlegel, 1870 : 87, pl. 9 (fig. 1) | Canestrini, 1875 : 29, 197 | Baader, 1875 : 182 | Moreau, 1881, 3 : 560 | Day, 1883, 2 : 241, pl. 142 (fig. 1) | Carus, 1893 : 540 | La Motte, 1893–1894 : 113–173 | Acloque, 1897–1898 : 71, 355 | Bremen, 1906 : 161, 182 | Schmidt, 1906a : 137, 267; 1906b : 265; 1909a : 1–45; 1910 : 511 | Ehrenbaum, 1911 : 4 | Schmidt, 1911b : 374; 1912a : 633; 1912b : 317; 1912c : 216; 1914 : 19; 1922 : 179; 1923 : 1–40; 1925 : 279 | Ehrenbaum, 1930 : 159 | Ancona, 1930: pl. 129 (fig. 1–2) | Schmidt, 1932a : 1–6 | Šoljan, 1948 : 124 | Dieuzeide *et al.*, 1954 : 87.
Anguilla acutirostris Risso, 1826, *Hist. nat. Eur. mér.* . . . , 3 : 198 ('Environs de Nice, mares et ruisseaux'). Type lost.
Anguilla mediorostris Risso, 1826, *Hist. nat. Eur. mér.* . . . , 3 : 199 ('eaux stagnantes'). Type lost.
Anguilla latirostris Risso, 1826, *Hist. nat. Eur. mér.* . . . , 3 : 199 ('eaux saumâtres'). Type lost.
Anguilla fluviatilis Anslin, 1828, *Syst. Besch. der.* . . . Visschen, 4 : 226.
Muraena platyrhina Ekström, 1831, *K. svenska Vetensk. Akad. Handl.* : 287.
Muraena oxyrhina Ekström, 1831, *ibid.* : 287.
Anguilla var. *macrocephala* de la Pylaie, 1835, *Congr. sci. Fr.*, 1834 : 529.
Anguilla var. *ornithoryncha* de la Pylaie, 1835, *Congr. sci. Fr.*, 1834 : 529.
Anguilla var. *oxycephala* de la Pylaie, 1835, *Congr. sci. Fr.*, 1834 : 529.
Anguilla var. *platyrhina* de la Pylaie, 1835, *Congr. sci. Fr.*, 1834 : 529.
Anguilla latirostris: Jenyns, 1835 : 414 | Lowe, 1841, 2 : 191 | Selys-Longchamps, 1842 : 225 | Bonaparte, 1845: no. 317 | Kaup, 1856 : 32, fig. 26 | Yarrell, 1859, 1 : 62 | Couch, 1865, 4 : 330 | Blanchard, 1866 : 495, fig. 130 | Günther, 1870, 8 : 32 | Carus, 1893 : 540.
Anguilla canariensis Valenciennes in Webb & Berthelot, 1843, *Hist. nat. Canaries* : 88, pl. 20 (fig. 1); ('Canaries'). Syntypes: MNHN no. 3783 (1 ex.), 3784 (3 ex.).
Anguilla acutirostris: Selys-Longchamps, 1842 : 225 | Costa, 1850 : 51, pl. 55, 59 (fig. 4, 5a–b) | Kaup, 1856 : 39, fig. 27 | Yarrell, 1859, 1 : 44 | Couch, 1865, 4 : 326 | Blanchard, 1866 : 497, fig. 132.
Anguilla cloacina Bonaparte, 1846, *Cat. meth. Pesci. Europ.* : 38.

- Anguilla septembrina* Bonaparte, 1846, *Cat. meth. Pesci. Europ.* : 38.
Anguilla migratoria Krøyer, 1849, *Danmarks Fiske* : 616. Type lost.
Anguilla platyrhynchus Costa, 1850, *Fauna Napoli* . . . , fasc. 65–68 : 50, pl. 58, 60 (fig. 3a–b) ('Napoli').
Anguilla callensis Guichenot, 1850, *Expl. Algérie* . . . , 5 : 111, pl. 7 (fig. 1). Syntypes: MNHN no. 3160 (5 ex.), 3220 (1 ex.), 3774 (4 ex.).
Anguilla ancidda Kaup, 1856, *Cat. Apod.* : 37, fig. 22 ('Sicily'). Syntypes: MNHN no. 3767 (1 ex.), 3780 (1 ex.).
Anguilla altirostris Kaup, 1856, *Cat. Apod.* : 37, fig. 24 ('mouth of the Seine'). Type: MNHN no. 3768 (1 ex.).
Anguilla platycephala Kaup, 1856, *Cat. Apod.* : 38, fig. 25 ('Abbeville'). Syntypes: MNHN no. 3210 (1 ex.), 5707 (5 ex.).
Anguilla nilotica Kaup, 1856, *Cat. Apod.* : 40, fig. 28 ('Nile'). Syntype: MNHN no. 3769 (1 ex.), 3770 (1 ex.), 3771 (1 ex.).
Anguilla aegyptiaca Kaup, 1856, *Cat. Apod.* : 40 ('Nile'). Syntype: MNHN no. 3772 (1 ex.), 3773 (1 ex.).
Anguilla capitone (Val. Ms) Kaup, 1856, *Cat. Apod.* : 34, fig. 17 ('Naples'). Type: MNHN no. 3762 (1 ex.).
Anguilla morena (Val. Ms) Kaup, 1856, *Cat. Apod.* : 35, fig. 18 ('Naples'). Type: MNHN no. 3763 (1 ex.).
Anguilla melanochir (Val. Ms) Kaup, 1856, *Cat. Apod.* : 35, fig. 19 ('Riv. Tiber'). Type: MNHN no. 3764 (1 ex.).
Anguilla kieneri Kaup, 1856, *Cat. Apod.* : 32, fig. 15 ('Toulon'). Type: MNHN no. 3757 (1 ex.).
Anguilla cuvieri Kaup, 1856, *Cat. Apod.* : 33 ('Abbeville'). Syntypes: MNHN no. 3758 (2 ex.), 3759 (7 ex.).
Anguilla bibroni Kaup, 1856, *Cat. Apod.* : 33, fig. 16 ('Sicily'). Syntypes: MNHN no. 3760 (1 ex.), 3779 (3 ex.).
Anguilla savignyi Kaup, 1856, *Cat. Apod.* : 34 ('Naples'). Type: MNHN no. 3731 (1 ex.).
Anguilla marginata Kaup, 1856, *Cat. Apod.* : 36, fig. 20 ('Valentia, Spain'). Type: MNHN no. 3765 (1 ex.).
Anguilla microptera Kaup, 1856, *Cat. Apod.* : 36, fig. 21 ('Bay of Algesiras'). Type: MNHN no. 3766 (1 ex.).
Anguilla mediorostris: Kaup, 1856 : 37, fig. 23 | Blanchard, 1866 : 496, fig. 131.
Anguilla callensis: Kaup, 1856 : 41.
Anguilla eurystoma Heckel & Kner, 1858, *Die Süßwasserfische Österreich.* : 325, fig. 168 ('Dalmatia').
Anguilla fluviatilis: Heckel & Kner, 1858 : 319, fig. 167.
Anguilla hibernica Couch, 1865, *Hist. Brit. Fish.*, 4 : 328, pl. 235 ('North Sea').
Anguilla oblongirostris Blanchard, 1866, *Poiss. eaux douces France* : 496 (riv. Huveaume (Marseille)). Syntypes: MNHN no. 9985 (15 ex.).
Anguilla brevirostris Cisternas, 1877, *An. Soc. esp. Hist. nat., Madrid*, 6 : 108 ('Valencia').
Anguilla anguilla: Vaillant, 1889 : 31 | Collett, 1896 : 152 | Vaillant, 1898 : 1429; 1919 : 135 | Pellegrin, 1921a : 158; 1921b : 271 | Buen, 1926 : 41, 164 | Germain, 1927 : 666, 678 | Hovasse, 1927 : 194 | Ancona, 1930: pl. 129 (fig. 1–2) | Ekman, 1932 : 85 | Borodin, 1934 : 108 | Bertin, 1935c : 1–57 | Nobre, 1935 : 382 | Athanassopoulos, 1937b : 2170 | Roule, 1937a : 1–23; 1937b : 326 | Ege, 1939 : 90 | Bertin, 1942 : 1–218, fig. | Roule, 1942 : 167 | Went, 1946 : 248 | Määr, 1947 : 1–56 | Poll, 1947 : 160 | Maul, 1948 : 144 | Collins, 1954 : 14 | Andriashev, 1954 : 132 | Albuquerque, 1954–1956 : 400 | Dollfus, 1955 : 108 | Ancona, 1958 : 731; 1959 : 1405 | Tucker, 1959a : 495; 1959b : 1406; 1959c : 1281 | Postel, 1959–1960 : 148–150 | Ancona, 1960 : 61 | Duncker, 1960 : 158 | Tucker, 1960 : 591 | Šoljan, 1963 : 395 | Zei, 1963 : 517 | Bănărescu, 1964 : 556, fig. 238 | Drapkin, 1964 : 140 | Tesch, 1967 : 2 | Reinsch, 1968 : 62 | Wheeler, 1969 : 227 | Deelder, 1970 : 1–68 | Tortonese, 1970e : 307, fig. 123, 126–127.
Anguilla kieneri: Carus, 1893 : 540.

Eggs, larvae and young stages. Kaup, 1856 : 150, pl. 18 (fig. 15) (*Leptocephalus brevirostris*); 1860 : 272 | Günther, 1870 : 141 | Bellotti, 1883 : 172–173 | Facciola, 1883a :

4 | Grassi & Calandruccio, 1892 : 378; 1893a : 2 | Acloque, 1894 : 155 | Facciola, 1894a : 126; 1894b : 133 | Cunningham, 1895a : 278; 1895b : 37 | Facciola, 1895a : 41; 1895b : 212 | Grassi & Calandruccio, 1895 : 4 | Grieg, 1895 : 228 | Petersen, 1895 : 325 | Brown, 1896 : 54 | Cunningham, 1896 : 198 | Grassi, 1896 : 371, fig. 1–4 | Grassi & Calandruccio, 1896a : 241; 1896b : 348; 1896c : 450 | Strömman, 1896 : 11 | Acloque, 1897 : 355 | Cunningham, 1897 : 467, fig. 2 | Facciola, 1897a : 116; 1897b : 122 | Gibbs, 1897 : 155 | Grassi, 1897a : 261; 1897b : 97; 1897c : 239 | Grassi & Calandruccio, 1897a : 239; 1897b : 85, fig. 1–2; 1897c : 226; 1897d : 234; 1897e : 406, fig. 1–8 | Grieg, 1897 : 37 | Krause, 1897 : 488 | Luehe, 1897 : 70 | Varigny, 1897 : 52, fig. 2 | Acloque, 1898 : 71 | Blochmann, 1898 : III | Brandes, 1898 : 410 | Chevreil, 1898 : 249 | Grassi & Calandruccio, 1898a : 97, 111, 124, fig.; 1898b : 306, 322, 339, 354, 362, fig. | Grotrian, 1898 : 92 | König, 1898 : 53 | Gill, 1899 : 820 | Godet, 1899 : 84 | Scott, 1899 : 85 | Spengel, 1899 : 138 | Linstow, 1900 : 322, fig. 1–5 | Facciola, 1901a : 49; 1901b : 253, 257 | Lo Bianco, 1901 : 247 | Eigenmann, 1902a : 39; 1902b : 12 | Herdman & Dawson, 1902 : 62 | Facciola, 1903 : 188 | Grassi & Calandruccio, 1903 : 57, 72, 110, 160 | Lo Bianco, 1904 : 18, pl. 1 (fig. 1) | Linden, 1905 : 70 | Petersen, 1905 : 3 | Breemen, 1906 : 161, 182 | Schmidt, 1906a : 137, fig. 1; 1906b : 265 | Bellini, 1908a : 5; 1908b : 1–166 | Braess, 1908 : 206 | Franz, 1908 : 490 | Gill, 1908 : 845 | Gilson, 1908a : 22, pl. 1 | Ridewood, 1908 : 117, fig. 58 | Koefoed, 1908 : 491 | Pietschmann, 1908 : 261 | Schweder, 1908 : 145 | Pintner, 1908 : 117 | Zacharias, 1908 : 683 | Dahl, 1909 : 20 | Holt, 1909 : 3–27 | Schmidt, 1909b : 4, tab. 1; 1909c : 1 | Ehrenbaum, 1909 : 380, fig. 145 | Mazzarelli, 1909 : 183 | Cunningham, 1910 : 92 | Grassi, 1910 : 1 | Grieg, 1910 : 349 | Hjort, 1910 : 104, fig. 1–5 | Holt & Byrne, 1910 : 1–7 | Laloy, 1910 : 206 | Blot, 1911 : 60 | Brühl, 1911 : 47 | Krebs, 1911a : 180; 1911b : 352 | Reichard, 1911 : 285 | Saemundsson, 1911 : 305 | Schmidt, 1911a : 139; 1911b : 374 | Übisch, 1911 : 361 | Grassi, 1912 : 18 | Hoffmeyer, 1912 : 151 | Krebs, 1912 : 258 | Schmidt, 1912a : 633, fig. 1; 1912b : 317, pl. 5–6; 1912c : 216, fig. 1; 1912d : 49; 1912e : 53; 1912f : 409; 1912g : 3; 1912h : 202, fig. 1a–h | Bowman, 1913 : 3 | Grassi, 1913 : 77, pl. 4–5, 15 (fig. 25, 34) | Lea, 1913 : 8, fig. 1–4, pl. 1 (fig. 1–4) | Grassi, 1914a : 37; 1914b : 17, pl. 1–2; 1915 : 695 | Schmidt, 1915 : 1–24 | Marcus, 1916 : 329 | Schmidt, 1916 : 5 | Grassi, 1919a : 7; 1919b : 314 | Bartels, 1922 : 321 | Regan, 1922 : 96 | Schmidt, 1922 : 180 | Torlitz, 1922 : 1–48 | Nordquist & Vallin, 1923–1924 : 1–32, 3 pl. | Roule, 1923 : 226, fig. 147–148 | Schmidt, 1923 : 2 | Cunningham, 1924 : 200 | Schmidt, 1924a : 729; 1924b : 12; 1924c : 29–31; 1925 : 280–307 | Bertin, 1926 : 329 | Fish, 1927 : 307, 319 | Schmidt, 1927 : 38 | Ancona, 1928 : 516; 1930 : pl. 129 (fig. 3–5); 1931 : 95, fig. 59–62 | Ford, 1931 : 987 | Ekman, 1932 : 86 | Spärck, 1932 : 900 | Bertin, 1935b : 100 | Poll, 1947 : 163 | Ley, 1949 : 83 | Kokhnenko & Borovik, 1957 : 272 | Castle, 1969 : 14, 35.

Otoliths (sagitta). Klein, 1740, 2 : 29 | Krieger, 1840, 2 : 24a | Retzius, 1872 : 53, pl. 5 (fig. 19–20); 1881 : 95, pl. 15 (fig. 14–18) | Fryd, 1901 : 34 | Scott, 1906 : 79 | Sanz Echeverría, 1926 : 148, fig. 6 | Gandolfi-Hornyold, 1927 : 250, pl. 1 (fig. 1–7) | Tylsova, 1927 : 1, fig. 23–25 | Sanz Echeverría, 1928 : 164, pl. 5 (fig. 7) | Gandolfi-Hornyold, 1928 : 412, fig. 1–6; 1929 : 193, pl.; 1930a : 252, pl.; 1930b : 420, pl. 1–2 (fig. 1–16); 1930c : 1071, pl. 1–4 (fig. 1–24); 1931 : 262, fig.; 1932 : 20, pl. 1–2 (fig. 1–16); 1933a : 273, pl. 1–3 (fig. 1–16); 1933b : 323, pl. 1–2 (fig. 1–16); 1933c : 304, 2 pl. (fig. 1–6); 1933d : 20, pl. 1–2 (fig. 1–16); 1935 : 455, fig. 1–16; 1936a : 154, pl. 1–2; 1936b : 248, pl. 2–3; 1937a : 103, pl. 1; 1937b : 1–8, fig. 1 | Chaine, 1938 : 225, pl. 17 | Berinkey, 1957 : 403.

Habitat, distribution and abundance. Benthic; adults in continental waters, larvae and young stages in sea. Spawning area in western Atlantic (Sargasso Sea); eastern Atlantic, south to Canary Islands. Very common.

Common names. Noun [Ar: Morocco], hancha [Ar: Tunisia], aal [Da, De, No], hannash [Eg], common eel [En], anguila [Es], anguille [Fr], chéli [He], jegulja [Hr], anguilla, capitone [It], zelofah [Iw], sallura [Mlt], paling [Ne], enguia, eiró [Pr], yilan [Tu].

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Simenchelidae

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 1
Sp: 1

72.1

SIMENCHELYS (Gill, MS) Goode & Bean, 1879 Gender: F
Bull. Essex Inst., **11** : 27 (type: *S. parasiticus* (Gill, MS) Goode & Bean, 1879, by monotypy).
Conchognathus Collett, 1889, *Bull. Soc. zool. Fr.*, **14** : 123 (type: *C. grimaldii* Collett, 1889, by monotypy).

72.1.1

Simenchelys parasitica (Gill, MS) Goode & Bean, 1879
Simenchelys parasiticus (Gill, MS) Goode & Bean, 1879, *Bull. Essex Inst.*, **11** : 27 ('found burrowing into flesh of the halibut' on shore banks, off Massachusetts Bay). Type lost.
Simenchelys parasiticus: Goode, 1881 : 485 | Goode & Bean, 1896 : 139, fig. 161 | Collett, 1896 : 156, pl. V (fig. 22), pl. VI (fig. 2) | Monaco, 1904 : 10 | Richard, 1911 : 9 | Zugmayer, 1911 : 83 | Vaillant, *in* Roule, 1919 : 135 | Jacquet, 1920 : 1–76, 5 pl. | Fowler, 1936 : 263, fig. 122 | Lozano Rey, 1947 : 514, fig. 164 | Albuquerque, 1954–1956 : 404, fig. 195.
Conchognathus grimaldi Collett, 1889, *Bull. Soc. zool. Fr.*, **14** : 124 ('Açores'). Types: MOM, many exempl.

Eggs, larvae and young stages. No data.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Cosmopolite, free or parasitic on large fishes. According to Grey, 1956, in eastern Atlantic from ca 15° to 46° N., 2°–33° W. Some deep bathyal records and many specimens in 880–1779 meters; locally abundant.

Common names. None.

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Muraenidae

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 4
Sp: 6

- 73.1 **MURAENA** [Artemi, 1738] Linnaeus, 1758 Gender: F
Syst. Nat., ed. X : 244 (type: *M. Helena* Linnaeus, 1758, by subs. design. of Jordan, 1917); also spelt *Murena* by various authors.
Muraenophis Cuvier, 1798, Tabl. élém. : 329 (type: *Muraena Helena* Linnaeus, 1758, by orig. design.).
Muraenophis Lacepède, 1803, Hist. nat. Poiss., 5 : 627 (type: *Muraena Helena* Linnaeus, 1758, by subs. design. of Jordan, 1917).
Limamuraena Kaup, 1856, Cat. Apod. : 95 (type: *L. guttata* Kaup, 1856, by monotypy).
- 73.1.1 **Muraena helena** Linnaeus, 1758
Muraena Helena Linnaeus, 1758, Syst. Nat., ed. X : 244 ('Habitat in Europae, Americae Oceano'). Type lost.
Muraena helena: Brunnichius, 1768 : 11, no. 20 | Bloch, 1787, 5 : 28, pl. 153 | Bonaterre, 1788 : 33, pl. 23 (fig. 79) | Rafinesque, 1810b : 44, no. 319 | Bowdich, 1825 : 125 | Risso, 1826, 3 : 189 | Jenyns, 1835 : 479 | Yarrell, 1836, 2 : 406 | Lowe, 1841 : 192 | Valenciennes in Cuv. Val., 1842 : 318, pl. 109 (fig. 2) | Bonaparte, 1845 : no. 331 | Guichenot, 1850, 5 : 114 | Gronow, 1854 : 18 | Kaup, 1856 : 55 | Yarrell, 1859 : 1 : 73 | Couch, 1865, 4 : 335, pl. 237 | Günther, 1870, 8 : 96 | Canestrini, 1875 : 203 | Moreau, 1881, 3 : 575, fig. 209 | Day, 1883 : 254, pl. 143 | Hilgendorf, 1888 : 212 | Holt, 1897 : 89 | Richard, 1904 : 9, 29; 1905 : 5 | Pellegrin, 1912 : 259 | Bouteillier, 1918 : 34 | Gruvel, 1924 : 31 | Buen, 1926 : 45, 164 | Gruvel, 1927 : 10 | Gruvel & Besnard, 1927 : 32 | Ancona, 1930 : pl. 130 (fig. 1) | Nobre, 1935 : 386 | Laverigne, 1937 : 438 | Poll, 1947 : 169, fig. 113 | Šoljan, 1948 : 395 | Maul, 1948 : 144 | Ben-Tuvia, 1953 : 9 | Albuquerque, 1954-1956 : 406 | Dieuzeide et al., 1954 : 105 | Collins, 1954 : 14 | Zei in Riedl, 1963 : 517 | Blache, 1967a : 179, fig. 1-7 | Maurin, 1968 : 30, 41, 48, 107 | Wheeler, 1969 : 226, fig. | Tortonese, 1970e : 319, fig. 129A, pl. 5.
Gymnothorax muraena Schneider, 1801, in M. E. Blochii Syst. Ichthyol. : 525.
Muraenophis helena: Lacepède, 1803, 5 : 631 | Risso, 1810 : 366 | Dollfus, 1955 : 35, 113.
Muraena romana Shaw, 1805, Gen. Zool., 4 : 26 (Mediterranean).
Muraenophis fulva Risso, 1810, Ichth. Nice : 367 ('Nice'). Type lost.
Muraena variegata Rafinesque, 1810a, Caratt. Gen. Spec. Sicil. : 67 ('Sicilia').
Muraena punctata Rafinesque, 1810a, Caratt. Gen. Spec. Sicil. : 68 ('Sicilia').
Muraena guttata Risso, 1826, Hist. nat. Eur. mérid., 3 : 191 (Mediterranean). Type lost.
Muraena guttata: Lowe, 1841 : 192 | Richardson, 1844 : 70.
Thyrsoidea augusti Kaup, 1856, Cat. Apod. : 88 ('Madeira'). Type lost.
Limamuraena guttata: Kaup, 1856 : 96.
Thyrsoidea atlantica Johnson, 1862a, Proc. zool. Soc. Lond., 10 : 168 ('Madeira'). Holotype: BMNH no. 1862.2.5.2.
Muraena augusti: Günther, 1870 : 97 | Zugmayer, 1933 : 85 | Maul, 1948 : 144 | Albuquerque, 1954-1956 : 407 | Collins, 1954 : 14.
Muraena bettencourti Osorio, 1911, Mems Mus. Bocage : 76, pl. 2 (fig. 2) ('Cabo Verde'). Type lost.
Muraenophis augusti: Fowler, 1936 : 1214.
Muraenophis helena: Fowler, 1936 : 317, fig. 49, 1214 | Lozano Rey, 1947 : 571, pl. 11 (fig. 1) | Postel, 1959-1960 : 149, 250.
Eggs, larvae and young stages. Grassi, 1896 : 372; 1897a : 261 | Sanzo, 1905 : 312 | Schmidt, 1906a : 149 | Lo Bianco, 1909 : 730 | Grassi, 1910 : 3, fig. 1-8 | Schmidt, 1912b : pl. 4 | Grassi, 1913 : 135, pl. 8 (fig. 1-10, 14-17, 19-21), pl. 12 (fig. 31-32),

pl. 13 (fig. 8) | Schmidt, 1913 : 6, fig. 3 | Grassi, 1915 : 702, 706; 1917 : 24, pl. 2 (fig. 10-11) | Bertin, 1926 : 328, tab. 1-6 | Fish, 1927 : 307 | Ancona, 1928 : 519; 1930 : pl. 130 (fig. 2); 1931 : 145, fig. 144-150 | Ford, 1931 : 996 | Castle, 1969 : 22.
Otoliths (sagitta). Frost, 1926 : 101 | Sanz Echeverría, 1928 : 164.
Habitat, distribution and abundance. Benthic, littoral, rocky coasts. Mediterranean and eastern Atlantic (from British isles to Senegal), Azores, Madeira, Canaries. Common.
Common names. Lamrini [Ar: Morocco], lefâa [Ar: Tunisia], marina [Eg], moray [En], morena [Es], murène [Fr], smérna [He], murina [Hr], murena [It], murena [Iw], morina [Mlt], moreia [Pr], merina [Tu].

- 73.2 **LYCODONTIS McClelland**, 1844 Gender: M
J. nat. Hist. Calcutta, 5 : 173 (type: *L. literata* McClelland, 1844, by subs. design. of Jordan, 1919).
Thaerodontis McClelland, 1844, *J. nat. Hist. Calcutta*, 5 : 174 (type: *T. reticulata* McClelland, 1844, by monotypy).
Eurymyctera Kaup, 1856, Cat. Apod. Fish. : 72 (type: *E. crudelis* Kaup, 1856, by monotypy).
Polyuranodon Kaup, 1856, Cat. Apod. Fish. : 96 (type: *Muraena polyuranodon* Bleeker, 1853, by orig. design.).
Taeniophis Kaup, 1860, *Abh. naturw. Ver. Hamburg.*, 1859 [1860], 4 (2) : 1 (type: *T. westphali* Kaup, 1860, by subs. design. of Jordan, 1919).
Aemasia Jordan & Snyder, 1901, *Proc. U.S. natn. Mus.*, 23 : 883 (type: *Aemasia lichenosa* Jordan & Snyder, 1901, by monotypy).
Ahynodontophis Fowler, 1912, *Proc. Acad. nat. Sci. Philad.*, 64 : 25 (type: *Gymnothorax stigmanotus* Fowler, 1912, by orig. design.).
Verdithorax Whitley, 1931, *Aust. Zool.*, 6 : 311 (type: *Muraena prasina* Richardson, 1844, by orig. design.).
- 72.2.1 **Lycodontis anatinus** (Lowe, 1841)
Muraena anatina Lowe, 1841, *Trans. zool. Soc. London*, 2 (3) : 192 ('Madeira'). Type: BMNH no. 1869.3.7.1.
Muraena sanctae helenae Günther, 1870, Cat. Fish. Brit. Mus., 8 : 115 ('St. Helena'). Type: BMNH no. 1868.3.11.3.
Muraena anatina: Günther, 1870 : 115 | Hilgendorf, 1888 : 212 | Maul, 1948 : 144 | Collins, 1954 : 14 | Albuquerque, 1954-1956 : 407.
Lycodontis anatinus: Fowler, 1936 : 314 | Blache, 1967b : 1151, fig. 13-16.
Eggs, larvae and young stages. No data.
Otoliths (sagitta). No data.
Habitat, distribution and abundance. Benthic, littoral, rocky coasts. Eastern Atlantic, only insular: Azores, Madeira, Canaries, Cape Verde, Isl., Ascension, St. Helena. Locally common.
Common names. Moreia serpente [Pr].
- 73.2.2 **Lycodontis unicolor** (Delaroche, 1809)
Muraenophis unicolor Delaroche, 1809, *Annls Mus. Hist. nat. Paris*, 13 : 319, 359, fig. 15 ('Iviça, Baléares'). Type: MNHN no. B 2413.
Muraenophis cristini Risso, Ichth. Nice : 368 ('Nice'). Type lost.
Muraenophis cristini: Risso, 1826 : 191.
Muraena unicolor: Lowe, 1841 : 192 | Valenciennes, in Cuv. Val., 1842 : 318 | Bonaparte, 1845 : no. 330 | Guichenot, 1850 : 114 | Günther, 1870, 8 : 125 | Canestrini, 1875 : 202 | Moreau, 1881, 3 : 577 | Hilgendorf, 1888 : 212 | Nobre, 1935 : 387 | Athanassopoulos, 1936 : 1; 1937a : 168 | Šoljan, 1948 : 395 | Maul, 1948 : 144 | Albuquerque, 1954-1956 : 408 | Collins, 1954 : 14 | Dor, 1959 : 42.
Thyrsoidea unicolor: Kaup, 1856 : 91.
Gymnothorax unicolor: Grassi, 1913 : 143 | Vaillant, 1919 : 135 | Tortonese, 1970e : 322, fig. 129B.
Lycodontis unicolor: Fowler, 1936 : 309, 1212, fig. 146 | Lozano Rey, 1947 : 573 | Dieuzeide et al., 1954 : 107 | Dollfus, 1955 : 113 | Postel, 1959-1960 : 149, 250 | Blache, 1967b : 1158, fig. 17-20.

Eggs, larvae and young stages. Strömman, 1896 : 24, pl. 2 (fig. 1–3) (*Leptocephalus forssstromi* part.) | Sanzo, 1905 : 312 | Lo Bianco, 1909 : 731 | Grassi, 1912 : 19; 1913 : 194, pl. 8 (fig. 11–13, 18), pl. 12 (fig. 33), pl. 13 (fig. 9), pl. 14 (fig. 16) | Regan, 1916 : 141, pl. 7 (fig. 7), probably larva of *Lycodontis mareei* (Poll, 1954) | Ancona, 1928 : 519; 1931 : 148, fig. 151–155 (not fig. 154) | Bertin, 1936a : 7, fig. 8 | Thomopoulos, 1954 : 8 | Castle, 1969 : 22, 40.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Benthic, littoral: rocky coast, rough sand, gravel. Mediterranean, eastern Atlantic: Morocco, Azores, Canaries, Madeira, Cape Verde Isl. Common.

Common names. Moreño [Pr].

73.2.3 *Lycodontis vicinus* (Castelnau, 1855)

Murenophis vicina Castelnau, 1855, Poiss. in Expéd. Am. Sud., 3 : 81, pl. 42 (fig. 4) ('Bahia, Brasil'). Holotype: MNHN no. B 2423.

Thyrsoidea cancellata: Kaup, 1856 : 76 (part.).

Thyrsoidea maculipinnis (non Kaup, 1856): Troschel, 1866 : 237.

Muraena maculipinnis: Günther, 1870, 8 : 124 | Osorio, 1909a : 76.

Lycodontis vicinus: Fowler, 1936 : 311 | Blache, 1967b : 1125, fig. 1–4.

Eggs, larvae and young stages. No data.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Benthic, littoral: rough sand, gravel or rocks. Eastern Atlantic, only insular: Madeira, Canaries, Cape Verde Isl. Common.

Common names. None.

73.3 *ANARCHIAS* Jordan & Starks, 1906

Gender: M

Bull. Bur. Fish. Wash., 25 : 204 (type: *Anarchias allardicei* Jordan & Starks, 1906, by orig. design.).

73.3.1 *Anarchias grassii* (Roule, 1916)

Uropterygius grassii Roule, 1916, *Bull. Inst. océanogr. Monaco*, (320) : 6 ('Archipel du Cap Vert'). Syntypes: MOM, 6 exempl.

Uropterygius concolor (non Rüppell, 1835): Grassi, 1913 : 175, pl. 10 (fig. 23–24).

Uropterygius grassii: Roule, 1919 : 101, pl. 6 (fig. 2a–c).

Uropterygius atlanticus nom. nud. (Vaillant MS), Roule, 1919 : 135 ('Azores').

Uropterygius grassii: Fowler, 1936 : 323, fig. 151.

Anarchias grassii: Kanazawa, 1952 : 77 | Blache, 1967d : 1707 | Saldanha, 1968 : 17.

Eggs, larvae and young stages. Grassi, 1913 : 197, pl. 12 (fig. 36) | Lea, 1913 : 25, fig. 21–22, pl. 4 (fig. 4) (*Leptocephalus euryurus*) | Roule & Angel, 1921 : 8 (young stages) | Ancona, 1931 : 150, fig. 156 | Castle, 1969 : 27 (*Uropterygius concolor*).

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Benthic, littoral, on rough sand or rocks from 10 to 100 meters. Mediterranean, eastern Atlantic: Azores, Madeira, Cape Verde Isl. Common.

Common names. None.

73.4 *GYMNOTHORAX* Bloch, 1795

Gender: M

Naturgesch. ausl. Fische, 9 : 83 (type: *G. reticularis* Bloch, 1795, by subs. design. of Bleeker, 1865, and Opin. Intern. Com. Zool. Nom., *Smithson. misc. Collns*, 1926, 73 (4) : 7).

Neomuraena Girard, 1858, *Proc. Acad. nat. Sci. Philad.*, 10 : 171 (type: *N. nigromarginata* Girard, 1858, by monotypy).

Priodonophis Kaup, 1860, *Abh. naturw. Ver. Hamburg*, 1859 [1860], 4, 2 : 22 (type: *Gymnothorax ocellatus* Agassiz, 1828, by monotypy).

Pseudomuraena Johnson, 1862a, *Proc. zool. Soc. Lond.* : 167 (type: *P. maderensis* Johnson, 1862, by monotypy).

73.4.1 *Gymnothorax maderensis* (Johnson, 1862)

Pseudomuraena maderensis Johnson, 1862a, *Proc. zool. Soc. Lond.* : 167 ('Madeira'). Syntype: BMNH no. 1862.6.14.10.

Muraena maderensis: Günther, 1870, 8 : 125 | Albuquerque, 1954–1956 : 408.

Lycodontis unicolor (part.): Fowler, 1936 : 309 | Lozano Rey, 1947 : 573.

Gymnothorax maderensis: Blache, 1967c : 1697, 5 fig.

Eggs, larvae and young stages. No data.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Benthic, in coral reefs of sublittoral zone, rocks between 85–200 meters. Madeira, west coast of Africa (Dahomey). Rare.

Common names. Moreño [Pr].

74 Heterenchelidae

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 1
Sp: 2

- 74.1 **PANTURICHTHYS** Pellegrin, 1913 Gender: M
Bull. Soc. zool. Fr., 38 : 117 (type: *P. mauritanicus* Pellegrin, 1913, by monotypy).
Ophisichthys Osorio, 1917, *Archos Univ. Lisb.*, 4 : 130 (type: *O. dubius* Osorio, 1917, by monotypy).
Lophenchelys Ben Tuvia, 1953, *Bull. Sea Fish. Res. Stn Israel*, 8 : 9, fig. 3 (type: *L. fowleri* Ben Tuvia, 1953, by monotypy).
- 74.1.1 **Panturichthys mauritanicus** Pellegrin, 1913
Panturichthys mauritanicus Pellegrin, 1913, *Bull. Soc. zool. Fr.*, 38 : 117 ('Mauritanie, baie du Lévrier'). Holotype: MNHN no. 13-8.
Ophisichthys dubius Osorio, 1917, *Arch. Univ. Lisb.*, 4 : 130 ('Morocco'). Holotype: MB no. T 125 (1796).
Panturichthys mauritanicus: Pellegrin, 1914 : 25-27, fig. 4-5, pl. I (fig. 5-5a) | Monod, 1924 : 133-134, 1 fig. | Saldanha, 1969 : 131-137, 4 fig.
Ophisichthys dubius: Saldanha, 1969 : 131.
Complementary iconography. Blache, Cadenat, Stauch, 1970: fig. 566.
Eggs, larvae and young stages. No data.
Otoliths (sagitta). No data.
Habitat, distribution and abundance. Benthic, muddy bottom on the continental shelf (30-50 m). Eastern Atlantic from Morocco to Guinea. Locally abundant.
Common names. None.
- 74.1.2 **Panturichthys fowleri** (Ben Tuvia, 1953)
Lophenchelys fowleri Ben Tuvia, 1953, *Bull. Sea Fish. Res. Stn Israel*, 8 : 9, fig. 3 ('Mediterranean coast of Israel'). Holotype: Sea Fish. Res. Stn, Haifa, no. M 168; paratype: ANSP no. 72-172.
Panturichthys fowleri: Ben-Tuvia, 1956 : 406, fig. 5-6; 1971: 9-10.
Lophenchelys fowleri: Böhlke, 1956 : 9, fig. 2B.
Eggs, larvae and young stages. No data.
Otoliths (sagitta). No data.
Habitat, distribution and abundance. Benthic, muddy bottom on the continental shelf (30-60 m). Eastern Mediterranean. Locally abundant.
Common names. None.

75 Serrivomeridae

by M.-L. Bauchot & L. Saldanha

G: 1
Sp: 3

- 75.1 **SERRIVOMER** Gill & Ryder, 1884 Gender: M
Proc. U.S. natn. Mus., 1883 [1884], 6 : 260 (type: *S. beani* Gill & Ryder, 1884, by monotypy).
Spinivomer Gill & Ryder, 1884, *Proc. U.S. natn. Mus.*, 1883 [1884], 6 : 261 (type: *S. goodei* Gill & Ryder, 1884, by monotypy) = *Serrivomer* juv.
Gavialiceps Alcock, 1899 (non Alcock ex Wood-Mason MS, 1889), *Cat. Indian Deep Sea Fishes* : 191 (type: *G. microps* Alcock, 1889, by orig. design.).
Alcockidia Gilbert, 1905, *Bull. U.S. Fish. Commn.*, 1903 [1905], 23 : 586 (type: *Gavialiceps microps*, Alcock, 1889, by orig. design.).
Paraserrivomer Roule & Angel, 1931, *Bull. Inst. océanogr. Monaco*, (581) : 2 (type: *Gavialiceps hasta* Zugmayer, 1911, by orig. design.).
- 75.1.1 **Serrivomer beani** Gill & Ryder, 1884
Serrivomer beani Gill & Ryder, 1884, *Proc. U.S. natn. Mus.*, 6 : 261 (41° 40' N., 65° 28' W.). Holotype: USNM no. 33-383 Coll. Albatross.
Serrivomer beani: Jordan & Davis, 1892 : 653 | Goode & Bean, 1896 : 155, fig. 175 | Beebe & Crane, 1936 : 61 | Fowler, 1936 : 283 (*pro parte*) | Schroeder, 1940 : 232 | Bertin, 1944 : 106 | Noronha & Sarmento, 1948 : 145 | Maul, 1949 : 145 | Albuquerque, 1954-1956 : 420, fig. 203 | Bauchot, *in* Koefoed, 1955 : 11 | Bauchot, 1959 : 131 | Quero, 1969 : 5 | Geistdoerfer *et al.*, 1971b : 1183.
? *Nemichthys infans* (non Günther): Vaillant, 1888 : 93, pl. VII (fig. 1).
? *Nemichthys richardi* Vaillant, 1888, *Expéd. "Travailleur" Talisman* : 385, for specimen described as *N. infans* : 93, pl. VII (off Azores). Holotype: MNHN no. 84-070 (very poor condition, head lost).
? *Avocettina richardi*: Jordan & Davis, 1892 : 655.
? *Serrivomer richardi*: Goode & Bean, 1896 : 155.
Serrivomer sector type *longidentatus* Roule & Bertin, 1929, Danish Dana Exped. 1920-1922, (4) : 39 (*pro parte*).
Nemichthys sp.: Borodin, 1931 : 73, pl. V (fig. 3).
Gavialiceps microps: Borodin, 1931 : 74.
Serrivomer sector: Parr, 1932 : 1 (*pro parte*).
Eggs, larvae and young stages. According to Bauchot, 1959, *Leptocephalus lanceolatus* Strömman, 1896, is the larval form of the 'systematic group *Serrivomer beani-Serrivomer parabeani*'.
Leptocephalus lanceolatus Strömman, 1896, *Leptocephalids in the Univ. Zool. Mus. Upsala* : 37, pl. IV (fig. 3-4) (Central Atlantic 34° N., 65° W.).
Leptocephalus lanceolatus: Blegvad, 1913 : 139 | Ancona, 1928 : 107 | Bauchot, 1959 : 7, fig. 1, 105, pl. I-II.
Leptocephalus Beebe & Crane, 1936 : 80 (*pro parte*).
Otoliths (sagitta). No data.
Habitat, distribution and abundance. Adult meso- and bathypelagic. Atlantic (from 0° to ca 45° N.). In the area ten specimens: 47° 02' N., 6° 03' W. (1 sp.), 39° 21' N., 10° 11' W. (3 sp.), 46° 46' N., 5° 39' W. (6 sp.). Larvae in higher level (100-300 m) with vertical rise during the night. Atlantic (ca 18° N. to 40° N.). In the area: off Madeira and South of Portugal. Rare.
Common names. None.
- 75.1.2 **Serrivomer brevidentatus** Roule & Bertin, 1929
Serrivomer sector type *brevidentatus* Roule & Bertin, 1929, Danish Dana Exped. 1920-1922, (4) : 39 (North Atlantic).

Serrivomer brevidentatus: Beebe & Crane, 1936 : 93, fig. 34–36 | Bertin, 1944 : 106 | Grey, 1955 : 291 | Bauchot-Boutin, 1959 : 131.

Serrivomer beani: Trewavas, 1932 : 650.

Serrivomer sector: Parr, 1932 : 3 (*pro parte*).

Serrivomer sp.: Beebe, 1933 : 180 (*pro parte*).

Eggs, larvae and young stages. According to Bauchot, 1959, *Leptocephalus lanceolatooides* Schmidt, 1916, is the larval form of *S. brevidentatus*.

Leptocephalus lanceolatooides Schmidt, 1916, *Meddr Kommn Havunders.* : 17, fig. 11 ('central portion of the North Atlantic').

Leptocephalus: Beebe & Crane, 1936 : 80 (*pro parte*). Transitional adolescents and adolescent: Beebe & Crane, 1936 : 97.

Leptocephalus lanceolatooides: Bauchot, 1959 : 8, fig., pl.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Adults meso- and bathypelagic. Atlantic (ca 17° N. to 33° N.). In the area: Mediterranean near Gibraltar: 36° 04' N., 5° 05' W. Larvae at higher levels (100 m). Atlantic ca 18° N. to 40° N., in the area until 36° N. (South of Portugal). Rare.

Common names. None.

75.1.3 *Serrivomer parabeani* Bertin, 1940

Serrivomer parabeani Bertin, 1940, *C.R. Acad. Sci. Paris*, **211** : 78. Types: 36 specimens described *Paraserrivomer hasta* by Roule & Angel, 1931 & 1933: MOM.

? *Gavialiceps hasta* Zugmayer, 1911, *Bull. Inst. océanogr. Monaco*, **193** : 7 (34° 14' N., 8° W. off Portugal). Type lost.

? *Gavialiceps hasta*: Zugmayer, 1911 : 86.

Serrivomer sector type *longidentatus* Roule & Bertin, 1929, Danish Dana Exped. 1920–22, (4) : 39 (*pro parte*).

Paraserrivomer hasta: Roule & Angel, 1931 : 3 (Neotype : st. 3281, west of Azores. MOM) | Roule & Angel, 1933 : 70, pl. IV (fig. 33) | Fowler, 1936 : 1210 (*pro parte*) | Belloc, 1949 : 4 | Brandes *et al.*, 1953 : 48 | Collins, 1954 : 14.

Serrivomer sector: Parr, 1932 : 2 (*pro parte*).

Nettastoma hasta: Fowler, 1936 : 281.

Serrivomer beani: Beebe & Crane, 1936 : 61 (*pro parte*).

Serrivomer parabeani: Bertin, 1944 : 106, fig. 2c | Bauchot-Boutin, 1953 : 366; 1954 : 304; in Koefoed, 1955 : 11 | Bauchot, 1959 : 131 | Quérou, 1969 : 5.

Serrivomer hasta: Lozano Rey, 1947 : 550, pl. 9 (fig. 2).

Eggs, larvae and young stages. As *Serrivomer beani*.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Adult meso- and bathypelagic. Atlantic (ca 60° N. to 7° S.). In the area three specimens: 56° 30' N., 32° W.; 43° 45' N., 3° 27' W.; 46° 46' N., 5° 39' W. Larvae at higher levels (100–300 m) with vertical rise in the course of the night, Atlantic ca 18° N. to 40° N. In the area: off Madeira and South of Portugal.

Common names. None.

76

Nemichthyidae

by V. Larsen

G: 3

Sp: 3

76.1

NEMICHTHYS Richardson, 1848

Gender: M

Zool. Voy. 'Samarang', 1843–1846 : 25 (type: *N. scolopaceus* Richardson, by monotypy).

Leptorhynchus Lowe, 1852, *Ann. Mag. nat. Hist.*, (2) **10** : 54 (type: *L. Leuchtenbergi* Lowe, by monotypy).

Leptorhynchus (err. typ.): Lowe, 1854 : 172.

Belonopsis Brandt, *Mém. Acad. Sci. St. Pétersbourg, Sav. étr.*, **7** : 175 (replaces *Leptorhynchus* Lowe, 1852, six times preoccupied in Reptiles, Insects, Birds, Fishes).

Tilurella Roule, 1911, *C.R. Acad. Sci., Paris*, **153** : 734 (larval stage).

76.1.1

Nemichthys scolopaceus Richardson, 1848

Nemichthys scolopaceus Richardson, 1848, Zool. Voy. 'Samarang', 1843–1846 : 25, pl. 10 (fig. 1) (Southern Atlantic). Holotype: BMNH.

Leptorhynchus Leuchtenbergi Lowe, 1852, *Ann. Mag. nat. Hist.*, (2) **10** : 54–55 (Madeira). Type: unknown.

Leptorhynchus Leuchtenbergi: Lowe, 1854 : 172–174.

Belonopsis Leuchtenbergii: Brandt, 1854: pl.

Nemichthys scolopacea: Vaillant, 1888 : 93, pl. VII (fig. 2–2a).

Nemichthys scolopaceus: Goode & Bean, 1896 : 152, fig. 170 | Brauer, 1906 : 126–127, pl. IX (fig. 1) | Grassi, 1913: *passim* and pl. IX (fig. 18–25) | Weber & Beaufort, 1916, **3** : 330, fig. 157–158 | Caziot & Isnard, 1920 : 87–88 | Roule & Bertin, 1929b : 6, 8–21, fig. 1–9, pl. 1 (fig. 5–10), pl. 2 (fig. 1–8), pl. 3 (fig. 1–3), pl. 4 (fig. 1–3), pl. 5 (fig. 1–2), pl. 6 (fig. 1–3), pl. 7 (fig. 1–3), pl. 8 (fig. 1–4) | Beebe & Crane, 1937 : 353–366, fig. 1–2, 3C, 4G, 5G | Böhlke, 1950 : 41 | Bigelow & Schroeder, 1953 : 159, fig. 74 | Genovese, 1954 : 81–92, fig. 1–5 | Dieuzeide & Roland, 1956 : 96, fig. 4–5 | Cavaliere, 1959 : 100–106, fig. 1–4 | Torchio, 1961 : 231–239, fig. 2–4 (MSNM no. 5475, 5502); 1962 : 108–109; 1963 : 3–9 (reprint), fig. 1–2 | Castle, 1965 : 132, fig. 1; 1969 : 23–24 (synonymy of larval stages) | Tortonese, 1965 : 74, pl. p. 73 (fig. d) | Wheeler, 1969 : 225, fig. 82 | Mead & Earle, 1970 : 101–102, fig. 1a–f.

Nemichthys sp. Ariola, 1904, *Ann. Mus. civ. Stor. nat., Genova* (3) **1** [XLI] : 156–157.

Nemichthys mediterraneus Ariola, 1904, *L'Acquicolt. Lombarda*, **6** (5) : 126–128, pl. II (fig. 1). Holotype: MSNG no. 6822 (fig. in Tortonese, 1970, fig. 142).

Nemichthys mediterraneus: Ariola, 1913 : 1–4.

Nemichthys pseudoscolopaceus Grassi, 1913, *Metamorph. muren.* : 28 (*nomen nudum*).¹

Tilurella Nemichthydis scolopacei Roule, 1919 : 108.

Complementary iconography. Bini, 1971 : 289.

Eggs, larvae and young stages. Roule & Bertin, 1929 : 61–111 | Beebe & Crane, 1937 : 357–366 | Castle, 1965 : 132–136; 1969 : 23–24 (synonyms of larval stages).

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Pelagic between the surface and ca. 1000 m. In the area: in the Mediterranean and in the Atlantic as far north as the Iceland-Faroes ridge; generally: found in all oceans. Not common.

Common names. Bekassinefisch [De], snipe eel [En], pez agazadicha [Es], anguille bécasse [Fr], beccaccino di mare [It].

76.2

PARAVOCETTINOPS Kanazawa & Maul, 1967

Gender: M

Bocagiana, (12) : 2 (type: *P. trilinearis* Kanazawa & Maul, by orig. design.).

1. In Grassi's opinion *N. scolopaceus* Rich. (? *nec* Brauer, *nec* Roule) and *N. pseudoscolopaceus* represent different species.

- 76.2.1 ***Paravocettinops trilinearis* Kanazawa & Maul, 1967**
Paravocettinops trilinearis Kanazawa & Maul, 1967, *Bocagiana*, (12) : 3–6, fig. 1–3, pl. 1–2 (off Madeira, from stomach of *Aphanopus carbo* Lowe, 1839). Holotype: MMF no. 21163; paratypes: MMF no. 21181 & 22173 (USNM no. 201410).
 Eggs, larvae and young stages. No data.
 Otoliths (sagitta). No data.
 Habitat, distribution and abundance. Pelagic (250–2000 m). In the area: off Madeira; generally: from Madeira to 10° N. in the eastern part of the Atlantic. Very few specimens known.
 Common names. None.
- 76.3 ***BORODINULA* Whitley, 1931** Gender: F
Aust. Zool., 6 (4) : 334 (replaces *Avocettina* Jordan & Davis, 1892, preoccupied by *Avocettina* Mulsant & Verreaux, 1866 [Aves]).
Avocettina Jordan & Davis, 1892, *Rept. U.S. Fish. Commr.*, 1888 [1892] : 655 (type: *Nemichthys infans* Günther, 1878, by orig. design.).
- 76.3.1 ***Borodinula infans* (Günther, 1878)**
Nemichthys infans Günther, 1878, *Ann. Mag. nat. Hist.*, (5) 2 : 251 (Mid-Atlantic). Holotype: BMNH.
Labichthys elongatus Gill & Ryder, 1884, *Proc. U.S. natn. Mus.*, 1883 [1884], 6 : 262 (39° 22' N., 68° 35' W.). Holotype: USNM no. 33577.
Nemichthys infans: Günther, 1887 : 264–265, pl. 63 (fig. B).
Labichthys infans: Goode & Bean, 1896 : 153–154, fig. 173.
Avocettina infans: Roule & Bertin, 1929 : 23–29, fig. 10–12, pl. I (fig. 2) | Beebe & Crane, 1937 : 366–369 | Wheeler, 1969 : 225, fig. 83.
Borodinula infans: Castle, 1961 : 11.
 Eggs, larvae and young stages. Castle, 1965 : 139, fig. 2; 1969 : 18.
 Otoliths (sagitta). Kotthaus, 1968, fig. 114.
 Habitat, distribution and abundance. Pelagic from 200–2000 m. In the area: in the southern part, but not in the Mediterranean; generally: found in all oceans. Apparently rare.
 Common names. None.

77 **Xenococongridae**

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 1
Sp: 1

- 77.1 ***CHLOPSIS* Rafinesque, 1810** Gender: F
 Indice d'Ittiologia siciliana . . . : 42, 58 (type: *C. bicolor* Rafinesque, 1810, by monotypy).
- 77.1.1 ***Chlopsis bicolor* Rafinesque, 1810**
Chlopsis bicolor Rafinesque, 1810b, Indice d'Ittiologia siciliana . . . : 58, pl. 2 (fig. 1) ('Sicilia'). Type: unknown.
Chlopsis bicolor: Carus, 1889–1893 : 545 | Grassi & Calandruccio, 1894b : 7; 1896b : 349; 1897f : 43 | Facciola, 1901a : 59 | Supino, 1905a : 25, fig. 1–9 | Grassi, 1913 : 130, pl. 7 (fig. 31–39) | Facciola, 1914 : 39 | Kirincic & Lepetic, 1953 : 1–2 | Parenzan, 1956 : 297 | Šoljan, 1963 : 395 | Tortonese, 1963 : 165; 1970e : 316, fig. 125–128.
 Eggs, larvae and young stages. Strömman, 1896 : 39, pl. 5 (fig. 5–6) | Sanzo, 1905 : 315 | Schmidt, 1912b : 338; 1912e : 53, 1 fig. | Grassi, 1912 : 17, 1 fig.; 1913 : 130, pl. 7 (fig. 31–39), pl. 10 (fig. 22), pl. 14 (fig. 3–5); 1915 : 702 | Bertin, 1926: tab. 6 | Fish, 1927 : 307 | Ancona, 1931 : 115, fig. 86–91 | Sparta, 1939a : 3, fig. 1–10 | Orton, 1964 : 438 | Smith, 1969 : 390.
 Otoliths (sagitta). No data.
 Habitat, distribution and abundance. Benthic on the continental slope. Mediterranean, Eastern Atlantic south to Angola. Not very common.
 Common names. None.

78 **Cyemidae**

by M.-L. Bauchot & L. Saldanha

G: 1
Sp: 1

- 78.1 **CYEMA** Günther, 1878 Gender: N
Ann. Mag. nat. Hist., (5) 2 : 251 (type: *C. atrum* Günther, 1878, by monotypy).
- 78.1.1 **Cyema atrum** Günther, 1878
Cyema atrum Günther, 1878, *Ann. Mag. nat. Hist.*, (5) 2 : 251 (South Pacific and Antarctic, 1500 and 1800 fathoms). Syntypes: BMNH no. 1887.12.7.260 (Antarctic Oc.) and 1887.12.7.261 (South Pacific). Coll. Challenger.
Cyema atrum: Günther, 1887 : 265, pl. 54 (fig. D) | Vaillant, 1888 : 91, pl. 7 (fig. 4) | Jordan & Davis, 1888 (1892) : 654 | Goode & Bean, 1896 : 154, fig. 176 | Brauer, 1906 : 131, pl. 8 (fig. 3) | Zugmayer, 1911 : 85, pl. 4 (fig. 2) | Murray & Hjort, 1912 : 87, fig. 69 | Vaillant, *in* Roule, 1919 : 135 | Roule & Angel, 1924 : 7 | Roule & Bertin, 1924 : 65 | Townsend & Nichols, 1925 : 12 | Roule & Bertin, 1929a : 264; 1929b : 52, pl. 9 (fig. 1–10), text. fig. | Roule & Angel, 1930 : 115, pl. 6 (fig. 151) | Trewavas, 1933 : 601, 3 fig., pl. 1 | Zugmayer, *in* Roule & Angel, 1933 : 85 | Fowler, 1936 : 287, fig. 136–137 | Bertin, 1936 : 440, fig. 1–5; 1937 : 3, 24 fig. | Tchernavin, 1947 : 345 | Lozano Rey, 1947 : 553, pl. 9 (fig. 3) | Nybelin, 1948 : 50 | Marshall, 1954 : 225, fig. IX–5 | Albuquerque, 1954–1956 : 425, fig. 206 | Koefoed, 1955 : 10 | Grey, 1955 : 291; 1956 : 151.
- Eggs, larvae and young stages.
Leptocephalus sp. Murray & Hjort, 1912 : 93, fig. 79.
Leptocephalus cyematis atri Lea, 1913 : 16, 11 fig., pl. 2 (6).
Leptocephalus F Roule, 1914 : 9, fig. 5–6; 1919 : 105, pl. 7 (fig. 6).
Leptocéphales de *Cyema atrum*: Roule & Bertin, 1929b : 101–108, pl. IX | Castle, 1964 : 77, fig. 1A–E.
- Otoliths (sagitta). No data.
- Habitat, distribution and abundance. Bathypelagic in all oceans; according to Grey (1956), chiefly deep-abyssal as an adult. Leptocephali usually at higher levels. Extreme depth range of adult 800–5100 m. In the area, eastern Atlantic from 37° to 28° N. Rare.
- Common names. None.

79 **Muraenesocidae**

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 1
Sp: 1

- 79.1 **CYNOPONTICUS** O. G. Costa, 1846 Gender: M
Fauna del regno di Napoli . . . , 3 : 1, pl. 28 (type: *C. ferox* O. G. Costa, 1846, by monotypy).
Phyllogramma Pellegrin, 1934, *Bull. Soc. zool. Fr.*, 59 : 46 (type: *P. regani* Pellegrin, 1934, by monotypy).
- 79.1.1 **Cynoponticus ferox** O. G. Costa, 1846
Cynoponticus ferox O. G. Costa, 1846, Fauna del regno di Napoli, 3 : 1–11, pl. 28 (fig. 1–6) (Ischia Isl., ‘Napoli’). Type lost.
Muraenesox savanna: Carus, 1893 : 542 | Grassi, 1913 : 173, pl. 10 (fig. 18–21) | Fowler, 1936 : 277 (part.).
Phyllogramma regani Pellegrin, 1934, *Bull. Soc. zool. Fr.*, 59 : 47 (‘Port-Etienne’, Mauretania). Holotype: MNHN no. 1922–6.
Muraenesox ferox: Tortonese, 1963 : 165.
Cynoponticus ferox: Blache & Tortonese, 1968 : 1–11, fig. 1–6 | Tortonese, 1970e : 330, fig. 128–133.
- Eggs, larvae and young stages. Blache, 1968a : 702, fig. 8–13.
Otoliths (sagitta). No data.
Habitat, distribution and abundance. Benthic on sandy places of the continental shelf. Western Mediterranean: very rare; Eastern Atlantic: common in the inter-tropical zone.

- 80 **Nettastomatidae**
by J. Blache, M.-L. Bauchot & L. Saldanha G: 4
Sp: 4
- 80.1 **NETTASTOMA Rafinesque, 1810** Gender: N
Caratt. Gen. Spec. Sicil., 1810: 66 (type: *N. melanura* Rafinesque, 1810, by monotypy).
Gavialiceps (Wood-Mason MS) Alcock, 1889, *Ann. Mag. nat. Hist. London*, (6), 4: 460 (type: *G. taeniola* (Wood-Mason MS) Alcock, 1889, by orig. design., 'Bay of Bengal').
Muraenosaurus Osorio, 1909, *Mems Mus. Bocage*, 1: 14 (type: *M. güntheri* Osorio, 1909, by monotypy).
Osorina Whitley, 1951, *Proc. R. zool. Soc. N.S.W.*: 61 (type: *M. güntheri* Osorio, 1909, by orig. design.).
- 80.1.1 **Nettastoma melanurum Rafinesque, 1810**
Nettastoma melanura Rafinesque, 1810, Caratt. Gen. Spec. Sicil.: 66, pl. 16 (fig. 1) ('Sicilia'). Type lost.
? *Muraenophis saga* Risso, 1810, *Ichthyol. Nice*: 370, pl. 10 (fig. 39) ('Nice'). Holotype: MNHN no. B 849.
Nettastoma melanura: Rafinesque, 1810b: 43 | Bonaparte, 1845: 39 | Kaup, 1856: 119, fig. 75 | Moreau, 1881: 579, fig. 210 | Facciola, 1899: 2 (*part.*) | Roule, 1919: 96 | Fowler, 1936: 280, fig. 131 | Tortonese, 1939: 423, fig. 1 | Lozano Rey, 1947: 539, pl. 8 (fig. 2) | Dollfus, 1955: 110 | Dieuzeide & Roland, 1957-1958: 44, fig. 8, 108, fig. 1-2 | Postel, 1959-1960: 149, 250 | Maurin, 1968: 26, 87, 97, 106, 113, 122.
? *Muraenophis saga*: Risso, 1826, 3: 193.
? *Muraena saga*: Costa, 1844-1845, 48-49: 10.
Nettastoma melanurum: Günther, 1870, 8: 48 | Vaillant, 1888: 83, pl. 5 (fig. 2a-b) | Carus, 1893, 2: 542 | Ancona, 1930: pl. 138 (fig. 1) | Saldanha, 1965: 2, fig. 1-3, 7; 1966: 131, fig. 1-6, pl. 1-8 | Saldanha & Blache, 1968: 184, fig. 1 | Tortonese, 1970e: 332, fig. 134.
? *Muraenophis saga*: Canestrini, 1875: 203.
Muraenosaurus güntheri Osorio, 1909, *Mems Mus. Bocage*, 1: 14, fig. 2-4 (off Cap Espichel (Portugal). Holotype: MB no. 2066.
Osorina güntheri: Whitley, 1951a: 61.
- Eggs, larvae and young stages. Kölliker, 1853b: 101 (*Hyoprurus messinensis*) | Kaup, 1856: 144, 150, pl. 16 (fig. 4), pl. 18 (fig. 14-14a) (*Leptocephalus longirostris*) | Carus, 1861: 125 | Gill, 1865: 207 | Günther, 1870: 8, 141, 144 | Moreau, 1881: 579 | Facciola, 1883a: 4 | Bellotti, 1883: 173 | Vaillant, 1888: 95 | Cunningham, 1891: 39 | Jordan & Davis, 1892: 665 | Grassi & Calandruccio, 1892: 379 | Facciola, 1893a: 99, 144, 148; 1893b: 311; 1893c: 29, 59; 1894a: 126; 1894b: 134 | Cunningham, 1895a: 279-280 | Grassi, 1896: 372 | Strömman, 1896: 38-40 | Facciola, 1897b: 122 | Grassi, 1897a: 261 | Facciola, 1901a: 45, pl. 7 (fig. 1); 1901b: 255 | Eigenmann, 1902a: 39 | Facciola, 1903: 194 | Schmidt, 1906a: 146-147, 149; 1911b: 377, fig. 2; 1912b: pl. 4; 1913: 7, fig. 4 | Grassi, 1913: 10-11, 143, pl. 8 (fig. 22-43) (*part.*) | Lea, 1913: 32, fig. 33, pl. 5 (5) (*Leptocephalus urosema*) | Grassi, 1914a: 41-42, fig. 3 | Bertin, 1926: 330, tabl. 6 | Fish, 1927: 307-308 | Ancona, 1928: 519; 1930: pl. 138 (fig. 2); 1931: 119, fig. 98-100 | Bertin, 1935b: 102 | Sparta, 1942: 255, pl. 1 (fig. 11-13) | Castle, 1969: 24, 45, 47, 56.
Otoliths (sagitta). No data.
Habitat, distribution and abundance. Benthic on muddy places on the continental slope. Cosmopolite. Common.
- 80.2 **FACCIOLELLA Whitley, 1938** Gender: F
Rec. Aust. Mus., 20: 197 (type: *Nettastomella physonema* Facciola, 1914, by subs. design.).
Nettastomella Facciola, 1911, *Boll. Soc. zool. ital.*, 2 (12): 277, preoccupied.
- 80.2.1 **Facciolella physonema (Facciola, 1914)**
Nettastomella physonema Facciola, 1914, *Boll. Soc. zool. ital.*, 3 (3): 39 (Mediterranean sea). Type lost. Neotype (Tortonese, 1970): MSNG no. 37252.
Nettastoma melanurum (part.): Facciola, 1899: 2.
Nettastoma saga (non Risso): Facciola, 1899: 3.
Saurenelchelys cancrivora (non Peters): Supino, 1905b: 143 | Grassi, 1913: 162, pl. 9 (fig. 35-44).
Facciolella physonema: Saldanha, 1965: 3, fig. 4-7 | Saldanha & Blache, 1968: 181, fig. 1-9, 15 | Tortonese & Casanova Queirolo, 1970: 27, fig. 2 | Tortonese, 1970e: 334, fig. 135.
- Eggs, larvae and young stages. Bellotti, 1883: 176 (*Leptocephalus oxyrhynchus*) | Grassi & Calandruccio, 1892: 379 | Jordan & Davis, 1892: 685 | Grassi & Calandruccio, 1895: 5 | Gassi, 1896: 372; 1897a: 261 | Facciola, 1901a: 59 | Eigenmann, 1902a: 39 | Schmidt, 1906a: 149; 1912b: pl. 4 | Lea, 1913: 31, fig. 32, pl. 4 (4) | Grassi, 1913: 166, pl. 9 (fig. 26-34), pl. 14 (fig. 1-2); 1914a: 41, fig. 4 | Bertin, 1926: tab. 6 | Fish, 1927: 307 | Ancona, 1931: 128, fig. 92-93 | Sanzo, 1938: 3, fig. 1-12 (as *Saurenelchelys cancrivora*) | Blache, 1963: 18, pl. 30 (as *Leptocephale 12*) | Saldanha & Blache, 1968: 195, fig. 10-14 (as *L. Facciolella physonema*, but in fact *L. Hoplunnis schmidtii*).
Otoliths (sagitta). No data.
Habitat, distribution and abundance. Benthic on continental slope. Mediterranean, eastern Atlantic (south to Angola). Common.
- 80.3 **SAURENHELYS Peters, 1864** Gender: F
Mber. Akad. Wiss. Berlin: 397 (type: *S. cancrivora* Peters, 1864, by monotypy).
Dietrichthys Whitley, 1935, *Rec. Aust. Mus.*, 19: 219, fig. 3 (type: *D. finitimus* Whitley, 1935, by monotypy, Australia).
- 80.3.1 **Saurenelchelys cancrivora Peters, 1864**
Saurenelchelys cancrivora Peters, 1864, *Mber. Akad. Wiss. Berlin*: 397 (localization not exactly known, but probably Mediterranean sea). Type lost.
Saurenelchelys cancrivora: Günther, 1870, 8: 48 | Saldanha & Blache, 1968: 182, fig. 1 | Tortonese, 1970: 336.
- Eggs, larvae and young stages. No data.
Otoliths (sagitta). No data.
Habitat, distribution and abundance. Benthic on continental slope. Mediterranean. Rare.
- 80.4 **VENEFICA Jordan & Davis, 1892** Gender: F
Rep. U.S. Commur Fish., 1888 (1892), 16: 651 (type: *Nettastoma procerum* Goode & Bean, 1882, by orig. design., Western Atlantic).
- 80.4.1 **Venefica proboscidea (Vaillant, 1888)**
Nettastoma proboscideum Vaillant, 1888, Exp. 'Travailleur' et 'Talisman': 84, pl. 7 (fig. 3) ('Côtes du Maroc'). Holotype: MNHN no. 84-1069.
Venefica proboscidea: Fowler, 1936: 281 | Lozano Rey, 1947: 541, pl. 8 (fig. 3) | Dollfus, 1955: 111 | Postel, 1959-1960: 149 | Maurin, 19, 26, 91.
- Eggs, larvae and young stages. Schmidt, 1909c: 5, pl. 1 (fig. 4-5) (*Leptocephalus rostratus*) | Murray & Hjort, 1912b: fig. 95 | Fish, 1927: 308 | Ancona, 1928: 520 | Castle, 1969: 51.
Otoliths (sagitta). No data.
Habitat, distribution and abundance. Benthic on continental slope. Eastern Atlantic (south, perhaps to Cape Province). Not common.

81 **Nettodaridae**

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 1
Sp: 1

- 81.1 **NETTODARUS** Whitley, 1951 Gender: M
Rec. Aust. Mus., **22**: 407 (type: *Nettastoma brevirostre*, Facciola, 1887, by orig. design.).
Todarus Grassi & Calandruccio, 1896, *Atti Accad. naz. Lincei Rc.*, **5**: 349, preoccupied.
- 81.1.1 **Nettodarus brevirostris** (Facciola, 1887)
Nettastoma brevirostre Facciola, 1887, *Naturalista sicil.*, **6** (9): 166, pl. 3 (fig. 3) ('Sicilia'). Type lost.
Nettastoma brevirostre: Carus, 1893: 543.
Nettastoma brevirostris: Griffini, 1903: 171.
Todarus brevirostris: Supino, 1905c: 255 | Grassi, 1913: 170, pl. 10 (fig. 11–17) | Trotti, 1947: 1; 1948: 93 | Tortonese, 1963: 165.
Nettodarus brevirostris: Tortonese, 1970: 337, fig. 136 | Blache *et al.*, 1970b: 319–331, 15 fig.
 Eggs, larvae and young stages. Grassi, 1912: 18; 1913: 170, pl. 10 (fig. 1–17) | Schmidt, 1913: 12, pl. 1 (fig. 8) (*Leptocephalus telescopicus*) | Grassi, 1917: 25, pl. 1 (fig. 10–12) | Ancona, 1931: 123, fig. 102–103 | Castle, 1969: 24, 55.
 Otoliths (sagitta). No data.
 Habitat, distribution and abundance. Benthic, on the continental slope. Mediterranean, western and eastern Atlantic (south to 5° S.). Rare.

82 **Congridae**

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 5
Sp: 5

- 82.1 **CONGER** [Cuvier] Oken, 1817 Gender: M
Isis, **1**: 1181 (misprinted as 1781) (type: *Muraena conger* Linnaeus, 1758, by absolute tautonymy).
Congrus Richardson, 1848, *Voy. Erebus & Terror*: 107 (type: *Muraena conger* Linnaeus, 1758, by orig. design.).
Isognatha De Kay *apud* Gill, 1861, suppl. to *Proc. Acad. nat. Sci. Philad.*: 56 (type: *Anguilla oceanica* Storer, by 1846, by orig. design., 'West Atlantic').
Microconger Fowler, 1912, *Proc. Acad. nat. Sci. Philad.*, **64**: 9, fig. 1 (type: *Leptocephalus caudalis* Fowler, 1912, by orig. design. 'Lower California').
Astroconger Jordan & Hubbs, 1925, *Mem. Carneg. Mus.*, **10**, 2: 194 (type: *Anguilla myriaster* Brevoort, 1856, by orig. design. 'Japan').
Forskalicthys Whitley, 1935, *Rec. Aust. Mus.*, **19**: 219 (type: *Conger cinereus* Rüppell, 1828, by orig. design., 'Red Sea').
- 82.1.1 **Conger conger** ([Artedi, 1738] Linnaeus, 1758)
Muraena Conger [Artedi, 1738] Linnaeus, 1758, *Syst. Nat.*, ed. X: 245 ('Habitat in Oceano Europaeo'). Type lost.
Muraena conger: Bonnaterre, 1788: 35, pl. 24 (fig. 22) | Bloch, 1791, **5**: 37, pl. 155 | Lacepède, 1800, **2**: 268 | Schneider *apud* Bloch, 1801: 487 | Donovan, 1808, **5**: pl. 119 | Risso, 1810: 92 | Pallas, 1814, **3**: 72 | Cuvier, 1817, **2**: 231; 1829, **2**: 350 | Gronovius, 1854: 19 | Nilsson, 1855: 680.
Anguilla conger: Shaw, 1803, **4**: 20, pl. 1 | Turton, 1807: 87 | Rafinesque, 1810b: 38 | Fleming, 1828: 200 | Jenyns, 1835: 478 | Kröyer, 1846, **3**: 603.
Muraena nigra Risso, 1810, *Ichth. Nice*: 93 ('rochers' de Nice). Type lost.
Conger verus Risso, 1826, *Hist. nat. Eur. mérid.*, **3**: 201 ('Nice'), substitute name.
Conger niger: Risso, 1826, **3**: 201 | Bonaparte, 1845: 38, no. 323 | Guichenot, 1850, **5**: 113 | Kaup, 1856: 113.
Conger vulgaris Yarrell, 1831, *Proc. zool. Soc. Lond.*: 158, substitute name.
Conger vulgaris: Parnell, 1831: 388 | Yarrell, 1836, **2**: 402 | Selys-Longchamps, 1842: 245 | Bonaparte, 1845: 38, no. 321 | Guichenot, 1850, **5**: 112 | Kaup, 1856: 111 | Marcotte, 1860: 396 | Günther, 1870, **8**: 38 (*pro parte*) | Schlegel, 1870: 90, pl. 9 (fig. 2) | Moreau, 1881, **3**: 565 | Day, 1883: 250 | Hilgendorf, 1888: 213 | Carus, 1893, **2**: 541 | Šoljan, 1948: 128.
Congrus vulgaris: Lowe, 1837: 192 | Richardson, 1848: 107.
Conger rubescens Ranzani, 1840, *Nov. Comment. Acad. Sci. Inst. Bonon.*, **4**: 82, pl. 12 (fig. 2) ('Mediterranean').
Conger communis Costa, 1844–1845, *Fauna Regn. Napoli*, (48–49): 2, substitute name.
Leptocephalus conger: Fowler, 1912: 9 (*pro parte*).
Conger conger: Bouteillier, 1918: 34 | Fowler, 1923: 33 (*pro parte*) | Gruvel, 1924: 31 | Buen, 1926: 42, 164 | Gruvel, 1927: 10 | Ancona, 1930: pl. 134 (fig. 1) | Nobre, 1935: 383 | Fowler, 1936: 268 (*pro parte*) | Cadenat, 1937: 437 | Gruvel & Besnard, 1937: 31 | Lavergne, 1937: 437 | Lozano Rey, 1947: 522, pl. 7 (fig. 1) | Poll, 1947: 167 | Šoljan, 1948: 395 | Maul, 1948: 145 | Ben-Tuvia, 1953: 8 | Dieuzeide *et al.*, 1954, **2**: 92 | Collins, 1954: 15 | Albuquerque, 1954–1956: 410 | Dollfus, 1955: 110 | Kanazawa, 1958: 248, pl. 1b (fig. 2–3) | Postel, 1959–1960: 149, 250 | Duncker, 1960: 162 | Riedl, 1963: 517 | Tortonese, 1963: 165 | Wheeler, 1969: 229 | Tortonese, 1970e: 324, fig. 123B, 130 | Tortonese & Casanova Queirolo, 1970: 29.
 Eggs, larvae and young stages. Gronovius, 1763: 135, pl. 13 (fig. 3) | Scopoli, 1777: 453 | Bonnaterre, 1788: 39, pl. 86 (fig. 359) (*Leptocephalus lineatus*) | Gmelin *apud* Linnaeus, 1789, **3**: 1150 (*Leptocephalus morrisii*) | Lacepède, 1800, **2**: 142, pl. 3

(fig. 12) (*Leptocephalus morrisianus*) | Schneider *apud* Bloch, 1801 : 133, pl. 108 (fig. 2) | Shaw, 1803 : 84 | Rafinesque, 1810b : 49, 62, pl. 2 (fig. 3) (*Helmictis punctatus*) | Risso, 1810 : 85 (*Leptocephalus spallanzani*); 1810 : 152, pl. 5 (fig. 19) (*Lepidopus pellucidus*) | Pennant, 1812 : 212, pl. 28 | Montagu, 1816 : 436, pl. 22 (fig. 1) | Leach, 1817, 3 : 10, pl. 126 | Cuvier, 1817 : 238 | Quoy & Gaimard, 1824 : 248 | Risso, 1826, 3 : 205 | Fleming, 1828 : 200 | Cuvier, 1829, 2 : 358 | Cocco, 1829 : 139 (*Leptocephalus gussoni*); 1831 : 1340 | Couch, 1832a : 313 (*Ophidium pellucidum*); 1832b : 742 | Deere, 1833 : 530, fig. 64 | Jenyns, 1835 : 480 | Yarrell, 1836 : 311, 313, 414 | Bonaparte, 1845 : 40 | Costa, 1846 : pl. 20 (fig. 1–2) (*Leptocephalus candidissimus*) | Richardson, 1848 : 51 | Gray, 1851 : 114 | Rüppell, 1852, 23 | Kölliker, 1853a : 360 (*Leptocephalus vitreus*) | Peach, 1854 : 238 | Kaup, 1856 : 147–148, 150, pl. 17 (fig. 7–8) (*Leptocephalus stenops* pro parte); 1860 : 271 | Gill, 1864 : 207 | Couch, 1865, 4 : 348, pl. 340 | Günther, 1870, 8 : 136, 139, 141 | Dareste, 1873a : 1304; 1873b : 295 | Edwards, 1878 : 60 | Day, 1880 : 250 | Moreau, 1881, 3 : 567 | Facciola, 1882a : 168 | Bellotti, 1883 : 171–172 | Facciola, 1883a : 3, 5, pl. 4 (fig. 5) (*Leptocephalus inaequalis*); 1883b : 147 | Delage, 1886 : 698–699 | Vaillant, 1888 : 95 | Carus, 1889–1893, 2 : 547 | Cunningham, 1891 : 36–38 | Grassi & Calandruccio, 1892 : 375, 377, 379 | Jordan & Davis, 1892 : 664–666 | Facciola, 1893a : 99, 101, 123; 1893b : 194, 223, 255, 288, 310–311; 1893c : 27, 57–58 | Grassi & Calandruccio, 1893b : 450 | Facciola, 1894a : 125; 1894b : 133–134; 1895a : 44 | Cunningham, 1895a : 279–280; 1895c : 73; 1896 : 204, fig. 99 | Grassi, 1896 : 371 | Grassi & Calandruccio, 1896a : 241 | Strömman, 1896 : 1, 12 | Grassi & Calandruccio, 1897e : 405 | Facciola, 1897a : 117; 1897b : 122 | Grassi, 1897a : 261 | McIntosh & Masterman, 1897 : 456 | Cunningham, 1897 : 467, fig. 1 | Chevrel, 1898 : 247–248 | Facciola, 1898 : 104 | Lo Bianco, 1899 : 555 | Scott, 1899 : 85 | Eigenmann, 1900 : 401 | Facciola, 1901a : 41, 44–45, pl. 6 (fig. 1), pl. 7 (fig. 6–12); 1901b : 251–252 | Eigenmann, 1902a : 39, 44; 1902b : 10, pl. 2 (fig. 5–12), pl. 4 (fig. 11–14) | Herdman & Dawson, 1902 : 62 | Lo Bianco, 1903 : 157 | Facciola, 1903 : 185–186, 192 | Eigenmann, 1904 : 629, fig. 1 | Fulton, 1904 : 251, 281–282, pl. 18 (fig. 1–2); 1905 : 251 | Collett, 1905b : 47 | Jordan, 1905, 2 : 149, fig. 106 | Schmidt, 1906a : 146–149, 154, 189, fig. 5b–c, pl. 9 (fig. 8–9) | Holt & Byrnes, 1907 : 197 | Gilson, 1908a : 24; 1908b : 132 | Ridewood, 1908 : 117 | Zacharias, 1908 : 685 | Schmidt, 1909c : 1, 16, pl. 1 (fig. 1–3), pl. 3, tab. 3 | Ehrenbaum, 1909 : 384, fig. 146 | Holt, 1909 : 13, fig. 1–3 | Lo Bianco, 1909 : 709 | Mazzarelli, 1909 : 183 | Laloy, 1910 : 207 | Schmidt, 1911b : 377, fig. 1; 1911c : 62, fig. 1–2 | Krebs, 1911a : 180 | Reichard, 1911 : 186 | Schmidt, 1912b : 323, 339; 1912d : 40; 1912f : 409, 411 | Murray & Hjort, 1912b : 62, fig. 72 | Grassi, 1913 : 8–10, 47, 55–56, 63, 201, pl. 2, pl. 14 (fig. 13) | Schmidt, 1913 : 4, fig. 1 | Bowman, 1913 : 8 | Lea, 1913 : 17, 25, fig. 20, pl. 4, no. 3 (*Leptocephalus enchodon*) | Grassi, 1914a : 43, fig. 1 | Pietschmann, 1914 : 457 | Grassi, 1915 : 695 | Schmidt, 1916 : 15 | Ford, 1920 : 249 | Clark, 1920 : 181 | Schmidt, 1924c : 31 | Bertin, 1926 : 331, tab. 4–6 | Fish, 1927 : 307–308 | Ancona, 1928 : 517 | Whitley, 1929 : 106 | Ancona, 1930 : pl. 134 (fig. 2) | Schmidt, 1931c : 603, fig. 1–2 | Ford, 1931 : 996 | Ancona, 1931 : 102, 108, fig. 64–68 | Spärck, 1932 : 902 | Legendre, 1934 : 310 | Bertin, 1935b : 104; 1935d : 180 | Buen, 1935 : 61 | Bruun, 1937 : 24, fig. 16 | Whitley, 1937 : 9 | Sparta, 1939b : 4 | Poll, 1947 : fig. 112 | Ley, 1949 : 96 | Muus & Dahlstrom, 1964 : 86 | Castle, 1969 : 18, 35, 39, 41, 43, 45, 48, 51–53, 56, 63.

Otoliths (sagitta). Scott, 1906 : 79 | Frost, 1926 : 101 | Sanz Echeverría, 1928 : 164; 1929 : 72 | Chaine, 1938 : 234.

Habitat, distribution and abundance. Benthic, on rocky or sandy coasts. Mediterranean, eastern Atlantic (South to Canary Islands). Common.

- 82.2 **ARIOSOMA** Swainson, 1838 Gender: N
 Nat. Hist. Fish., 1 : 220 (type: *Ophisoma acuta* Swainson, 1839, by subs. design. of Bleeker.).
Ophisoma Swainson, 1839, Nat. Hist. Fish., 2 : 334 (type *Ophisoma acuta* by subs. design.), preoccupied.
Congermuraena Kaup, 1856, Arch. Naturgesch., 22 : 71 (pro parte) (type: *Muraena balearica* Delaroché, 1809, by subs. design. of Bleeker), also spelt *Congromuraena* by various authors.

Congrellus Ogilby, 1898, Proc. Linn. Soc. N.S.W., 23 : 288 (type: *Muraena balearica* Delaroché, 1809, by orig. design.).
Nesocongrus Whitley, 1935, Rec. Aust. Mus., 19 : 219 (type: *Congermuraena howensis* McCulloch & Waite, 1916, by orig. design., 'Pacific: Lord Howe Island').
Thyreoconger Wade, 1946, Allan Hancock Pacif. Exped., 9 : 188 (type: *Thyreoconger hemiaspidus* Wade, 1946, by monotypy, 'Pacific: Gulf of California').

- 82.2.1 **Ariosoma balearicum** (Delaroché, 1809)¹
Muraena balearica Delaroché, 1809, Annl. Mus. Hist. nat. Paris, 13 : 314, 327, fig. 3 ('Iviça, Iles Baléares'). Type lost.
Muraena cassini Risso, 1810, Ichth. Nice : 91 ('Nice', Mediterranean). Type lost.
Echelus ciuciara Rafinesque, 1810, Caratt. Gen. Spec. Sicil. : 65, tab. 15, fig. 3 ('Sicily').
Conger cassini: Risso, 1826, 3 : 203 | Guichenot, 1850, 5 : 113.
Ophisoma acuta Swainson, 1839, Nat. Hist. Fish., 2 : 334, 394 ('Sicily').
Conger opisththalmus Ranzani, 1840, Nov. Comm. Acad. Sci. Inst. Bonon., 4 : 78, pl. 12 (fig. 1) (Mediterranean).
Conger auratus Costa, 1844–1845, Faun. Regn. Napoli, fasc. 48–49 : 6, pl. 29 (fig. 29) ('Napoli', Mediterranean).
Conger balearicus: Bonaparte, 1845 : 38, no. 325 | Dareste, 1875 : 215 | Moreau, 1881, 3 : 569.
Congermuraena balearica: Kaup, 1856 : 110 | Šoljan, 1948 : 395.
Congromuraena balearica: Günther, 1870, 8 : 41 | Šoljan, 1948 : 129.
Congrellus balearicus: Fowler, 1923 : 33.
Ophisoma balearicum: Ancona, 1930 : pl. 136 (fig. 1).
Ariosoma balearica: Fowler, 1936 : 273, fig. 127 | Lozano Rey, 1947 : 528, pl. 7 (fig. 2) | Ben Tuvia, 1953 : 8 | Albuquerque, 1954–1956 : 413, fig. 199 | Dieuzeide *et al.*, 1954, 2 : 96 | Dollfus, 1955 : 110 | Postel, 1959–1960 : 149, 250 | Tortonese, 1963 : 165 | Maurin, 1968 : 110, 121 | Tortonese & Casanova Queirolo, 1970 : 29 | Tortonese, 1970e : 327, fig. 131.
- Eggs, larvae and young stages. Bonaparte, 1845 : 40 | Costa, 1846 : 2, pl. 31 (*Helmichthys diaphanus*) | Kölliker, 1853a : 360 | Kaup, 1856 : 148, pl. 17 (fig. 9) (*Leptocephalus taenia* pro parte, *Leptocephalus marginatus* pro parte); 1860 : 272 | Facciola, 1883a : 3–5, pl. 4 (fig. 1–2) (*Leptocephalus affinis*, *Leptocephalus inornatus*); 1883b : 147 | Bellotti, 1883 : 171, 174, 179 | Raffaele, 1888 : 69, pl. 5 (fig. 13–14) | Jordan & Davis, 1892 : 665 | Grassi & Calandruccio, 1892 : 378 | Facciola, 1893a : 125; 1893b : 311; 1893c : 29, 58, 60; 1894a : 126, 173, 175, 219; 1894b : 135; 1895a : 39; 1895b : 220 | Grassi & Calandruccio, 1895 : 5 | Cunningham, 1895a : 280 | Collett, 1896 : 153 (*Leptocephalus dentex*, non Cantor) | Grassi, 1896 : 372 | Strömman, 1896 : 16, pl. 1 (fig. 1–3) (*Leptocephalus ekmani*, *Leptocephalus scheelei* pro parte) | Facciola, 1897a : 117; 1897b : 122 | Grassi, 1897c : 240 | Cunningham, 1897 : 467 | Lo Bianco, 1899 : 556 | Facciola, 1901a : 45, 52, pl. 7 (fig. 1–5); 1901b : 258 | Eigenmann, 1902a : 39 | Facciola, 1903 : 187 | Schmidt, 1906a : 149 | Lo Bianco, 1909 : 710 | Schmidt, 1912b : 332, pl. 4; 1912d : 39, 47, pl. 3 (fig. 5–6) | Murray & Hjort, 1912b : fig. 91 | Grassi, 1913 : 9, 68, 71, 73, 197, pl. 3, pl. 12 (fig. 35) | Schmidt, 1913 : 4 | Lea, 1913 : 21, pl. 3 (no. 3) | Grassi, 1914a : 38–39 | Roule, 1914 : 5 | Schmidt, 1916 : 15, fig. 8 | Roule, 1919 : 103 | Roule & Angel, 1923 : 8 | Bertin, 1926 : tab. 6 | Fish, 1927 : 307 | Ancona, 1928 : 517 | Roule & Angel, 1930 : 114, pl. 6 (fig. 150) | Ancona, 1930 : pl. 136 (fig. 2); 1931 : 110–113, fig. 80–83 | Bertin, 1936a : 2, fig. 1–3 | Sparta, 1938b : 6, fig. 11–17 | Thomopoulos, 1954 : 7, fig. 12–13 | Castle, 1969 : 16, 33, 37–38, 43.
- Otoliths (sagitta). Koken, 1888 : 186 | Frost, 1926 : 102 | Campbell, 1929 : 274 | Chaine, 1938 : 242 | Bauzá Rullán, 1957 : 41.
- Habitat, distribution and abundance. Sandy or muddy places on the continental slope. Mediterranean, eastern Atlantic (south to Angola). Not common.

- 82.3 **GNATHOPHIS** Kaup, 1860 Gender: M
 Abh. naturw. Ver. Hamburg, 1859 [1860], 4 (2) : 7 (type: *Myrophis heterognathus* Bleeker, 1859, by orig. design., 'Japan').

1. *Ariosoma balearicum* from western Atlantic (various authors) belongs to another species.

Rhynchocymba Jordan & Hubbs, 1925, *Mem. Carneg. Mus.*, **10** (2) : 192, 195 (type: *Leptocephalus nystromi* Jordan & Snyder, 1901, by orig. design., 'Japan').
Poutawa Griffin, 1936, *Trans. R. Soc. N.Z.*, **66** : 16 (type: *Congrus habenatus* Richardson, 1848, by orig. design., 'New Zealand').

82.3.1

***Gnathophis mystax* (Delaroche, 1809)**

Muraena mystax Delaroche, 1809, *Annls Mus. Hist. nat. Paris*, **13** : 328, pl. 23 (fig. 10) ('Barcelone', Mediterranean). Type lost.
Conger mystax: Risso, 1826, **3** : 203 | Bonaparte, 1845 : 38, no. 326 | Dareste, 1875 : 15 | Canestrini, 1875, **3** : 201 | Moreau, 1881, **3** : 570.
Congermuraena mystax: Kaup, 1856 : 110 | Ancona, 1930: pl. 135 (fig. 1) | Dieuzeide *et al.*, 1954, **2** : 94.
Congromuraena mystax: Günther, 1870, **8** : 43.
Bathyconger mystax: Buen, 1935 : 61 | Fowler, 1936 : 271, fig. 125 | Lozano Rey, 1947 : 531, pl. 7 (fig. 3) | Maul, 1948 : 145 | Albuquerque, 1954–1956 : 414 | Dollfus, 1955 : 110 | Postel, 1959–1960 : 149, 250 | Ben Tuvia, 1962 : 137.

Ariosoma mystax: Tortonese, 1963 : 165.

Gnathophis mystax: Castle, 1963 : 17 | Tortonese, 1967 : 1 | Saldanha, 1967 : 425, fig. 1–8, pl. 1–2 | Tortonese & Queirolo, 1970 : 29 | Tortonese, 1970e : 328, fig. 132.

Eggs, larvae and young stages. Kaup, 1856 : 148–150, pl. 17 (fig. 10–12), pl. 18 (fig. 13) (*Leptocephalus bibroni*, *L. gegenbaui* non Kölliker, *L. köllikeri*, *L. stenops* pro parte, *L. yarrelli*) | Kaup, 1860 : 270, pl. 3 (fig. B) (*L. haeckeli*) | Günther, 1870, **8** : 141, 143 | Facciola, 1882b : 185, fig. 3 (*L. kaupii*); 1883a : 3–10, pl. 4 (fig. 3–11) (*L. sicanus*, *L. peloritanus*, *L. prestandreae*, *L. maurolici*, *L. borelli*, *L. guttuosus*, *L. tenuirostris*, *L. zancleus*); 1883b : 147 | Bellotti, 1883 : 171–172 | Raffaele, 1888 : 69 | Grassi & Calandruccio, 1892 : 378–379 | Jordan & Davis, 1892 : 665 | Facciola, 1893a : 99, 123, 125; 1893b : 194, 224–226, 254–256, 287–288, 309–311; 1893c : 26, 32, 57–58; 1894a : 125; 1894b : 133, 135; 1895a : 43–44, 47; 1895b : 218 | Cunningham, 1895a : 280 | Grassi & Calandruccio, 1895 : 5 | Grassi, 1896 : 371 | Strömman, 1896 : 4–6, 8–9, 11 | Grassi, 1897a : 261 | Facciola, 1897a : 117; 1897b : 122 | Cunningham, 1897 : 467 | Chevrel, 1898 : 247–248 | Facciola, 1901a : 45, pl. 6 (fig. 2–5), pl. 7 (fig. 8, 12–13); 1901b : 252–253, 261 | Eigenmann, 1902a : 39 | Facciola, 1903 : 185–186, 188, 195 | Sanzo, 1905 : 313 | Schmidt, 1906a : 149 | Mazzarelli, 1909 : 183 | Lo Bianco, 1909 : 710 | Schmidt, 1911b : 377, fig. 2; 1912b : 320, pl. 4; 1912d : 39, pl. 3 (fig. 3–4); 1912f : 411 | Lea, 1913 : 18, fig. 12–15, pl. 3 (fig. 1–2) | Grassi, 1913 : 44–45, 47–48, 59, 198, pl. 1, pl. 12 (fig. 37) | Schmidt, 1913 : 4, fig. 2 | Roule, 1914 : 4 | Pietschmann, 1914 : 455 | Grassi, 1915 : 695 | Schmidt, 1916 : 15 | Roule, 1919 : 102, pl. 7 (fig. 4–4b) | Bartels, 1922 : 322 | Roule, 1923 : fig. 150 | Bertin, 1926 : 331, tab. 5–6 | Fish, 1927 : 307 | Ancona, 1928 : 517; 1930 : pl. 135 (fig. 2); 1931 : 106–108, fig. 72–76 | Borodin, 1931 : 60 | Ford, 1931 : 996 | Roule, 1932 : 272, pl. 3 | Spärck, 1932 : 902 | Bertin, 1935b : 104; 1935d : 180; 1936b : 2–5, fig. 1–3 | Fowler, 1936 : fig. 126 | Albuquerque, 1954–1956 : 414, fig. 200 | Castle, 1969 : 21, 34, 40–41, 43, 46, 50, 53, 55, 57.

Otoliths (sagitta). Chaine, 1938 : 247 | Bauzá-Rullán, 1957 : 37.

Habitat, distribution and abundance. Benthic, muddy or sandy places on the continental slope. Mediterranean, eastern Atlantic (southern limits not well defined, in regard to *Gnathophis capensis*). Not common.

82.4

PARACONGER Kanazawa, 1961

Gender: M

Proc. U.S. natn. Mus., **113** : 1–14 (type: *Echelus caudilimbatus* Poey, 1867, by orig. design., 'Cuba').

82.4.1

***Paraconger macrops* (Günther, 1870)**

Conger macrops (*pro parte*) Günther, 1870, *Cat. Fish. Brit. Mus.*, **8** : 40 ('Madeira'). Type lost.

Paraconger macrops: Kanazawa, 1961 : 7, pl. 1A.

Eggs, larvae and young stages. No data.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Benthic, on sandy-muddy bottom and rocks of the sub-littoral zone, on depths about 30 to 100 metres. Madeira. Rare.

82.5

PROMYLLANTOR Alcock, 1890

Gender: M

Ann. Mag. nat. Hist., (6) **6** : 310 (type: *P. purpureus*, Alcock, 1890, by monotypy, 'Bay of Bengal').

Congrosoma Garman, 1899, *Mem. Mus. comp. Zool. Harv.*, **24** : 308 (type: *C. evermanni* Garman, 1899, by monotypy, 'Galapagos').

Pseudoplichthys Roule, *C.R. Acad. Sci. Paris*, **160** : 283 (type: *P. latedorsalis* Roule, 1916, by monotypy).

82.5.1

***Promyllantor latedorsalis* (Roule, 1915)**

Pseudoplichthys latedorsalis Roule, 1915, *C.R. Acad. Sci. Paris*, **160** : 283 ('Açores, nord de l'île Fayal'). Syntypes: MOM.

Myrus pachyrhynchus (*non* Vaillant, 1888): Vaillant, 1898 : 81 (*pro parte*).

Pseudoplichthys latedorsalis: Roule, 1916 : 4; 1919 : 97, pl. 6 (fig. 4a–c).

Promyllantor latedorsalis: Fowler, 1936 : 270, fig. 124.

Pseudoplichthys laterodorsalis: Poll, 1953 : 143, fig. 57.

Eggs, larvae and young stages. No data.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Muddy places on the continental slope, *circa* 1000 m. Azores, Morocco. Rare.

83 **Derichthyidae**

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 1
Sp: 1

- 83.1 **DERICHTHYS** Gill, 1884 Gender: M
Am. Nat., **18** : 433 (type: *D. serpentinus* Gill, 1884, by monotypy).
Grammatocephalus Norman, 1930, *Discovery Rep.*, **2** : 338, fig. 34 (type: *G. kempii* Norman, 1930, by monotypy, 'off South Africa').
- 83.1.1 **Derichthys serpentinus** Gill, 1884.
Derichthys serpentinus Gill, 1884, *Am. Nat.*, **18** : 433 (Western Atlantic: 39° 44' N., 71° 04' W.). Holotype: USNM no. 33.523.
Derichthys serpentinus: Goode & Bean, 1896 : 161, fig. 169 | Parr, 1934 : 32, fig. 10 | Geistdoerfer *et al.*, 1971 : 1183.
Derichthys iselini Borodin, 1929, *Proc. New Engl. zool. Club*, **10** : 110 (50° 41' N., 27° 17' W.). Holotype: MCZ no. 31.670.
Derichthys iselini: Borodin, 1931 : 75, pl. 3 (fig. 4–6).
 Eggs, larvae and young stages. Schmidt, 1916 : 17, fig. 12–14 (*Leptocephalus anguilloides*) | Fish, 1927 : 308 | Schmidt, 1930 : 375 | Castle, 1969 : 20, 33.
 Otoliths (sagitta). No data.
 Habitat, distribution and abundance. Mesopelagic. North Atlantic. Not common.

84 **Echelidae**

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 1
Sp: 1

- 84.1 **ECHELUS** Rafinesque, 1810 Gender: M
 Caratt. Gen. Spec. Sicil. : 63 (type: *E. punctatus* Rafinesque, 1810, by subs. design. of Blecker, 1864).
Myrus Kaup, 1856, Cat. Apod. Fish : 31 (type: *M. vulgaris* Kaup, 1856, by monotypy).
- 84.1.1 **Echelus myrus** (Linnaeus, 1758)
Muraena Myrus Linnaeus, 1758, Syst. Nat., ed. X : 245 ('Habitat in Mari Mediterraneo'). Type lost.
Muraena myrus: Brünnichius, 1768 : 12 | Bonnaterre, 1788 : 35 | Schneider *apud* Bloch, 1801 : 488 | Lacepède, 1803, **5** : 265 | Risso, 1810 : 90.
Anguilla myrus: Shaw, 1803, **4** : 24 | Jenyns, 1835 : 478.
Conger myrus: Cuvier, 1817, **2** : 231 | Risso, 1826, **3** : 202 | Costa, 1844–1845, **3** (48–49) : 11, pl. 33 | Bonaparte, 1845: no. 324 | Guichenot, 1850 : 113 | Canestrini, 1875 : 200.
Congrus myrus: Richardson, 1844–1848 : 108.
Myrus vulgaris Kaup, 1856, Cat. Apod. Fish : 31, fig. 14 ('Bay of Naples'). Substitute name.
Myrus vulgaris: Kaup, 1860 : 270, pl. 3 (fig. A) | Günther, 1870, **8** : 50 | Moreau, 1881, **3** : 572 | Carus, 1893 : 543 | Šoljan, 1948 : 127.
Echelus myrus: Ancona, 1930: pl. 137 (fig. 1) | Lozano Rey, 1947 : 536, pl. 8 (fig. 1) | Ben Tuvia, 1953 : 8 | Dieuzeide *et al.*, 1954 : 97 | Postel, 1959–1960 : 149, 250 | Tortonese, 1960 : 233, fig. 1; 1963 : 165 | Blache, 1968*b* : 1503 | Maurin, 1968 : 78 | Tortonese, 1970 : 340, fig. 137.
Myrus myrus: Šoljan, 1963 : 395.
 Eggs, larvae and young stages. Kaup, 1860 : 270, pl. 3 (fig. A) (*Leptocephalus kefersteini* part.) | Sanzo, 1905 : 315 | Lo Bianco, 1909 : 731 | Schmidt, 1912*b*: pl. 4 | Grassi, 1913 : 25, 124, pl. 7 (fig. 14–21 & 25–30), pl. 14 (fig. 10–11) | Grassi, 1915 : 704, pl. 2 (fig. 8) | Bertin, 1926: tab. 6 | Ancona, 1930: pl. 137 (fig. 2); 1931 : 125, fig. 104–109 | Sparta, 1940 : 3 | Blache, 1968*b* : 1531, fig. 16.
 Otoliths (sagitta). Frost, 1926 : 99 | Bauzá-Rullán, 1957 : 35.
 Habitat, distribution and abundance. Benthic, burrowing, in sand or mud on the continental shelf. Mediterranean and Eastern Atlantic (from Gulf of Gascogne to Benguela, Angola). Not very common.

85 **Nessorhamphidae**

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 1
Sp: 1

- 85.1 **NESSORHAMPHUS** Schmidt, 1930 Gender: M
Vidensk. Meddr dansk naturh. Foren., Kbh., **90** : 372 (type: *Leptocephalus ingolfianus* Schmidt, 1912, by monotypy).
- 85.1.1 **Nessorhamphus ingolfianus** (Schmidt, 1912)
Leptocephalus ingolfianus Schmidt, 1912d, *Vidensk. Meddr dansk naturh. Foren., Kbh.*, **64** : 49, pl. 3 (fig. 8) ('S.W. of the Azores: 32° 03' N., 39 00' W.), larval stage. Syn-types: ZMUC no. P 32520–23.
Nessorhamphus ingolfianus: Schmidt, 1930, *Vidensk. Meddr dansk naturh. Foren., Kbh.*, **90** : 373 ('warmer parts of all oceans').
Nessorhamphus ingolfianus: Schmidt, 1931b : 487; 1932b : 251, fig. 192.
Eggs, larvae and young stages. Schmidt, 1912b : 340; 1912d : 49, pl. 3 (fig. 8) | Ancona, 1928 : 518 | Schmidt, 1930 : 373, pl. 5; 1931a : 444, fig. 3 | Beebe, 1935 : 25, 29, fig. 10 | Bruun, 1936 : 10, fig. 4.
Otoliths (sagitta). No data.
Habitat, distribution and abundance. Epi- to mesopelagic. Cosmopolite. Common.
Common names. None.

86 **Ophichthidae**

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 5
Sp: 6

- 86.1 **OPHICHTHUS** Ahl, 1789 Gender: M
Spec. ichthy. de Muraena et Ophichtho, 1789 : 5 (type: *Muraena ophis* Linnaeus, 1758, by subs. design. of Bleeker, 1865, *Neder. Tijdschr. Dierk.*, **2** : 119).
Ophis Turton, 1807, *The British fauna . . .*, **1** : 82, 87 (type: *O. maculata* Turton, 1807, by monotypy).
Cogrus Rafinesque, 1810, *Caratt. Gen. Spec. Sicil.* : 62 (type: *C. maculatus* Rafinesque, 1810, by monotypy).
Centrurophis Kaup, 1856, *Cat. Apod. Fish* : 2 (type: *Ophisurus spadiceus* Richardson, 1845, by subs. design. 'Canton, Madagascar, Vanikoro').
Poecilcephalus Kaup, 1856, *Cat. Apod. Fish* : 5 (type: *P. bonaparti* Kaup, 1856, by monotypy, 'Amboina').
Microdonophis Kaup, 1856, *Cat. Apod. Fish* : 6 (type: *M. altipinnis* Kaup, 1856, by monotypy, 'Macassar').
Coecilophis Kaup, 1856, *Cat. Apod. Fish* : 6 (type: *Ophisurus compar* Richardson, 1846, by monotypy, 'Sumatra').
Herpetoichthys Kaup, 1856, *Cat. Apod. Fish* : 7 (type: *H. ornatissimus* Kaup, 1856, by subs. design., 'Malabar').
Elapsopsis Kaup, 1856, *Cat. Apod. Fish* : 9 (type: *Ophisurus versicolor* Richardson, 1846, by monotypy, 'Moluccas'), also written *Elapsopsis* by various authors.
Muraenopsis Lesueur, *apud* Kaup, 1856, *Cat. Apod. Fish* : 11 (type: *Muraenopsis ocellata* Lesueur, 1825, by subs. design., 'Mexico and South America').
Scytalophis Kaup, 1856, *Cat. Apod. Fish* : 13 (type: *S. magniocularis* Kaup, 1856, by subs. design., 'Ste Croix and Brazils').
Leptorhinophis Kaup, 1856, *Cat. Apod. Fish* : 14 (type: *Ophisurus gomesi* Castelnau, 1855, by subs. design., 'Rio de Janeiro').
Cryptopterus Kaup, 1860, *Abh. naturw. Ver. Hamburg*, 1859 [1860], **4** (2) : 11 (type: *C. puncticeps* Kaup, 1860, by monotypy, 'Puerto Cabello'), preoccupied by *Kryptopterus* Bleeker, 1858.
Uranichthys Poey, 1867, *Repert. fis. nat. Cuba*, **2** : 256 (type: *Muraena havanensis* Schneider *apud* Bloch, 1801, by subs. design., 'Cuba').
Oxyodontichthys Poey, 1880, *An. Soc. esp. Hist. nat.*, **9** : 254 (type: *Ophichthys macrurus* Poey, 1867, by subs. design., 'Cuba').
Acanthenchelys Norman, 1922, *Ann. Mag. nat. Hist.*, **10** : 296 (type: *A. spinicauda* Norman, 1922, by monotypy, 'Tobago').
Cryptopterenchelys Fowler, 1925, *Am. Mus. Novit.*, **162** : 1 (type: *Cryptopterus puncticeps* Kaup, 1860, by orig. design., 'Puerto Cabello'), to replace *Cryptopterus* Kaup preoccupied.
Zonophichthys Whitley, 1930, *Aust. Zool.*, **6** : 250 (type: *Ophichthys cephalozona* Bleeker, 1864, by orig. design., 'Amboina').
- 86.1.1 **Ophichthys ophis** (Linnaeus, 1758)
Muraena Ophis Linnaeus, 1758, *Syst. Nat.*, ed. X : 244 ('Habitat in Oceano Europaeo').
? *Muraena ophis*: Bloch, 1786 : 35, pl. 154 | Bloch *apud* Schneider, 1801 : 488.
? *Ophichthys ophis*: Ahl, 1789 : 9.
? *Ophisurus ophis*: Lacepède, 1800, **2** : 196 | Risso, 1810 : 87.
? *Anguilla ophis*: Shaw, 1803, **4** : 22, pl. 2.
Complementary iconography. Böhlke & Robins, 1959: fig. 2.
Eggs, larvae and young stages. No data.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Benthic, burrowing in sand on the continental shelf (10–50 m). Tropical Western Atlantic, eastern Atlantic from Senegal to Angola. Mediterranean? Not very common, doubtful presence within the area. According to Böhlke & Robins, 1959, *Notul. nat. Acad. Philad.*, 320 : 1–9, the locality indicated by Linnaeus is doubtful. However *O. ophis* is known from West Africa, from Senegal to Angola; so it is not possible to affirm that the presence within the area is erroneous. Common names. None.

86.1.2 *Ophichthus rufus* (Rafinesque, 1810)

Echelus rufus Rafinesque, 1810, Caratt. Gen. Spec. Sicil. : 65, tab. 16, fig. 2 ('Sicily'). *Centrurophis remicaudus* Kaup, 1856, Cat. Apod. Fish. : 3 ('Sicily'). Type lost.

Ophisurus hispanus Bellotti, 1857, *Atti. Accad. fis. med. statist. Milano*, 3 : 72 ('Barcelona'). Type: MZUT no. 511.

Ophichthys hispanus: Günther, 1870, 8 : 72 | Carus, 1893 : 544 | Perugia, 1897 : 141. *Ophichthys remicaudus*: Günther, 1870, 8 : 73 | Carus, 1893 : 544 | Dieuzeide *et al.*, 1954, 2 : 102.

Ophisurus hispanus: Moreau, 1881, 3 : 584, fig. 212.

Ophichthus rufus: Fowler, 1936 : 299, fig. 141 | Lozano Rey, 1947 : 557, fig. 168.

Ophichthys remicaudatus: Ben Tuvia, 1953 : 8.

Ophichthus remicaudus: Tortonese, 1960 : 240, fig. 2; 1963 : 165; 1970 : 341, fig. 138.

Eggs, larvae and young stages. Kaup, 1860 : 270, pl. 3 (fig. A) | Raffaele, 1888 : 69 | Grassi & Calandruccio, 1896b : 349 | Schmidt, 1912b: pl. 4; 1913 : 10, fig. 6 | Grassi, 1913 : 127, pl. 7 (fig. 22–24), pl. 14 (fig. 6–9); 1915 : 703, pl. 2 (fig. 6) | Bertin, 1926: tab. 6 | Fish, 1927 : 307 | Ancona, 1931 : 138, fig. 133–136 | Sparta, 1937 : 12, fig. 19; 1939c : 10 | Castle, 1969 : 24.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Benthic on the continental slope (150–300 m). Mediterranean. Rare.

Common names. None.

86.2 *APTERICHTHUS* Duméril, 1806

Gender: M

Zool. analyt. : 331 (type: *Caecilia branderiana* Lacepède, 1800, substitute name for *Muraena caeca* Linnaeus, 1758, by monotypy).

Caecilia Lacepède, 1800, Hist. nat. Poiss., 2 : 134 (type: *C. branderiana* Lacepède, 1800 = *Muraena caeca* Linnaeus, 1758, by monotypy), preoccupied.

Typhlotes Fisher, 1813, Zoogn., 3rd ed., 1 : 75–81, substitute for *Caecilia* Lacepède, preoccupied.

Branderius Rafinesque, 1815, Analyse nat. : 93, *nomen nudum*.

Ophisurapus Kaup, 1856, Arch. Naturg., 22 : 52 (type: *O. gracilis* Kaup, 1856, by monotypy, no locality); misprinted *Ophisuraphis* Kaup, 1856, Cat. Apod. Fish. : 29.

86.2.1 *Apterichthys caecus* (Linnaeus, 1758)¹

Muraena caeca Linnaeus, 1758, Syst. Nat., ed. X : 245 ('Habitat in Mari Mediterraneo'). Type lost.

Muraena caeca: Bonnaterre, 1788 : 35.

Caecula apterygia Vahl, 1794, *Skrivt. Naturh. Selsk. Kjøbenhavn*, 3 : 153, a substitute name for *Muraena caeca* Linnaeus.

Caecilia branderiana Lacepède, 1800, Hist. nat. Poiss., 2 : 135, a substitute name for *Muraena caeca* Linnaeus.

Apterichthys caecus: Delaroche, 1809 : 325, pl. 21 (fig. 6) | Blache & Bauchot, 1972 : 711–714, fig. 7.

1. A recent study by Blache & Bauchot, 1972 (*Bull. IFAN* (A) 34 (3)), showed that the mediterranean species *Verma anguliformis* (Peters, 1877) and *Apterichthys caecus* (Linnaeus, 1758) have been confused by various authors in a single species to which very diverse names have been given, in particular: *Caecula caeca*, *Sphagebranchus caecus*, *Sphagebranchus bimaculatus*, *Sphagebranchus serpa*, *Sphagebranchus spallanzani*, *Ophichthys caecus*.

It is impossible to assign the references of these authors to one or the other of the two species. Therefore we are limiting ourselves only to sure references. For the same reason, references relating to eggs, larvae and young stages cannot be attributed to either species.

Eggs, larvae and young stages. Kaup, 1860 : 270, pl. 3 (fig. A) (*Leptocephalus kefersteini* pro parte) | Grassi & Calandruccio, 1896b : 349 | Schmidt, 1912b: pl. 4 | Grassi, 1913 : 121, pl. 7 (fig. 1–12); 1915 : 703, pl. 2 (fig. 3–5) | Bertin, 1926 : 330, tab. 3, 6 | Ancona, 1931 : 135, fig. 128–132 | Sparta, 1938a : 6, fig. 11–12; 1939c : 11 | Thomopoulos, 1952 : 330, fig. 5; 1954 : 8 | Castle, 1969 : 18, 44.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Benthic, burrowing in sand or mud on the continental shelf (10–40 m). Mediterranean, eastern Atlantic, south to Cape Blanco. Not common.

Common names. None.

86.3 *DALOPHIS* Rafinesque, 1810

Gender: M

Caratt. Gen. Spec. Sicil. : 68 (type: *D. serpa* Rafinesque, 1810, by subs. design., synonym of *Sphagebranchus imberbis* Delaroche, 1809. Mediterranean).

Pterurus Rafinesque, 1810, Indice Ittiol. sicil. : 43, 59 (type: *P. flexuosus* Rafinesque, 1810, by monotypy), preoccupied by *Pterourus* Scopoli, 1777.

Scytallurus [Kaup MS] Duméril, 1856, *Mém. Acad. Sci. Paris*, 27 : 199 (type: *Sphagebranchus imberbis* Delaroche, 1809, by monotypy).

Pelia [Schlegel MS] Bleeker, 1863, *Natuurk. Verh. holl. Maatsch. Wet., Haarlem*, 18 (2) : 128 (type: *Sphagebranchus?* (*Pelia*) *cephalopeltis* [Schlegel MS] Bleeker, 1863, by monotypy, 'côte de l'or') = *Dalophis cephalopeltis* ([Schlegel MS] Bleeker, 1863).

86.3.1 *Dalophis imberbis* (Delaroche, 1809)

Sphagebranchus imberbis Delaroche, 1809, *Annls Mus. Hist. nat., Paris*, 13 : 360, pl. 25 (fig. 18) ('Iviça, Baléares'). Type: MNHN no. 2127.

Dalophis bimaculata Rafinesque, 1810, Caratt. Gen. Spec. Sicil. : 69 ('Sicilia') and Indice Ittiol. sicil. : 43.

Leptocephalus spallanzani Risso, 1810, Ichth. Nice : 85 ('mer d'Éza vers Monaco'). Type lost.

Sphagebranchus imberbis: Risso, 1826, 3 : 196 | Costa, 1844, liv. 45 : 1, pl. 32 (fig. 1) | Bonaparte, 1845 : 39, no. 333 | Kaup, 1856 : 25 | Moreau, 1881, 3 : 586 | Šoljan, 1948 : 395 | Ben Tuvia, 1953 : 8.

Sphagebranchus oculus Risso, 1826, Hist. nat. Europ. Mérid., 3 : 197 (no locality). Type: MNHN no. B 848.

Ophichthys imberbis: Günther, 1870, 8 : 84 | Carus, 1893 : 544.

Caecula imberbis: Lozano Rey, 1947 : 564, pl. 10 (fig. 2) | Albuquerque, 1954–1956 : 417 | Tortonese, 1963 : 166; 1970 : 345, fig. 141A | Tortonese & Casanova Queirolo, 1970 : 29.

Dalophis imberbis: Blache & Bauchot, 1972 : 747–751, fig. 24–25.

Eggs, larvae and young stages. Kaup, 1860 : 270, pl. 3 (fig. A) (*Leptocephalus kefersteini* pro parte) | Raffaele, 1888 : 69, pl. 5 (fig. 2) | Grassi & Calandruccio, 1896b : 349 | Schmidt, 1912b: pl. 4; 1913 : 10, fig. 7 | Grassi, 1913 : 116, pl. 6 (fig. 13–22), pl. 7 (fig. 13); 1914a : 40, fig. 2; 1915 : 704, pl. 2 (fig. 7) | Bertin, 1926 : 332, tab. 6 | Fish, 1927 : 307 | Ancona, 1931 : 132, fig. 120–127 | Ford, 1931 : 996 | Sparta, 1937 : 11, fig. 6–10; 1939c : 10 | Thomopoulos, 1956 : 4, fig. 8–9 | Castle, 1969 : 18.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Benthic, littoral, burrowing in sand or mud. Mediterranean, Eastern Atlantic south to Mauritania. Not common.

Common names. None.

86.4 *OPHISURUS* Lacepède, 1800

Gender: M

Hist. nat. Poiss., 2 : 195 (type: *Muraena serpens* Linnaeus, 1758, by subs. design. of Risso, 1826, as restricted).

Leptognathus Swainson, 1838, Nat. Hist. Fish., 1 : 221 (type: *L. oxyrhynchus* Swainson, 1838, by monotypy).

Leptorhynchus Smith, 1840, Ill. Zool. S. Afr. (pl. 6 in vol. 4, 1849) (type: *L. capensis* Smith, 1840, by monotypy, 'South Africa'). Preoccupied (see Barnard, 1950, for datation).

Anepistomon Gistel, 1848, *Naturg. Thier.* : IX (type: *Leptorhynchus capensis* Smith, 1840, by orig. design., substitute for *Leptorhynchus* Smith preoccupied).

- 86.4.1 ***Ophisurus serpens* (Linnaeus, 1758)**
Muraena Serpens Linnaeus, 1758, Syst. Nat., ed. X: 244 ('*Habitat in Oceano Europae australis*').
Muraena serpens: Brunnichius, 1768: 11 | Bonnaterre, 1788: 34.
Ophisurus serpens: Lacepède, 1800, 2: 198 | Rafinesque, 1810b: 37 | Risso, 1810: 88; 1826, 3: 206 | Costa, 1844 (45): 2, pl. 28bis (fig. 1–2) | Bonaparte, 1845: 39, no. 328 | Richardson, 1846: 106 | Guichenot, 1850: 114 | Kaup, 1856: 7 | Cannes-trini, 1875, 3: 201 | Moreau, 1881, 3: 581, fig. 211 | Ancona, 1930: pl. 131 (fig. 1) | Dieuzeide *et al.*, 1954: 100 | Tortonese, 1960: 242, fig. 3; 1963: 166 | Maurin, 1968: 27, 33 | Tortonese, 1970e: 343, fig. 139.
Echelus oxyrinchus Rafinesque, 1810, Caratt. Gen. Spec. Sicil.: 64, pl. 17 (fig. 4), and Indice Ittiol. sicil.: 42 ('Sicilia').
Sphagebranchus serpens: Lowe, 1839: 17.
Muraena acutirostris Gronovius, 1854, Cat. Fish. Brit. Mus.: 19 ('*Habitat in America*').
Ophichthys serpens: Günther, 1870, 8: 65 | Šoljan, 1948: 123 | Albuquerque, 1954–1956: 415.
Oxystomus serpens: Fowler, 1936: 303, fig. 143 | Lozano Rey, 1947: 560, pl. 10 (fig. 1) | Maul, 1948: 145 | Dollfus, 1955: 112 | Postel, 1959–1960: 149, 251.
Ophichthys serpens: Šoljan, 1948: 395.
Eggs, larvae and young stages. Kaup, 1860: 270, pl. 3 (fig. A) (*Leptocephalus kefersteini pro parte*) | Facciola, 1893c: 58 | Grassi, 1896: 372 | Grassi & Calandruccio, 1896b: 349 | Facciola, 1897b: 122 | Grassi, 1897a: 261 | Schmidt, 1912b: pl. 4; 1913: 9, fig. 5 | Grassi, 1913: 110, 196, pl. 6 (fig. 1–12), pl. 12 (fig. 34); 1915: 706 | Bertin, 1926: tab. 6 | Fish, 1927: 307 | Ancona, 1930: pl. 131 (fig. 2); 1931: 128, fig. 110–119 | Bertin, 1936b: 8 | Sparta, 1939c: 5, 11, fig. 6–8 | Castle, 1969: 22, 44.
Otoliths (sagitta). Sanz Echeverría, 1928: 165.
Habitat, distribution and abundance. Benthic, burrowing in sand or mud on the continental shelf. Mediterranean, Eastern Atlantic, West Pacific and South Indian Ocean, probably cosmopolite. Not very common.
Common names. None.
- 86.5 **PISODONOPHIS** Kaup, 1856 Gender: M
Arch. Naturgesch., 22: 47 (type: *Ophisurus cancrivorus* Richardson, 1844, by subs. design. of Bleeker, 1865, '*Indien und Mauritius*'), written *Pisoodonophis* in Kaup, 1856, Cat. Apod. Fish: 15.
Omocheilus Fowler, 1918, *Proc. Acad. nat. Sci. Philad.*, 70: 3 (type: *Pisoodonophis cruentifer* Goode & Bean, 1896, by orig. design., '*Western Atlantic*') as subgenus.
Syletor Jordan, 1919, *Proc. Acad. nat. Sci. Philad.*, 70 (1918): 343 (type: *Pisoodonophis cruentifer* Goode & Bean, 1896, by orig. design., '*Western Atlantic*').
- 86.5.1 ***Pisodonophis semicinctus* (Richardson, 1848)**
Ophisurus semicinctus Richardson, 1848, *Icht. Voy. 'Erebus' & 'Terror'*: 99 ('*Western Africa, north of the Equator*'). Type: BMNH.
Pisodonophis semicinctus: Dollfus, 1955: 112 | Furnestin *et al.*, 1958: 409, fig. 19 | Postel, 1959–1960: 149, 251 | Tortonese, 1963: 166 | Maurin, 1968: 27, 78.
Eggs, larvae and young stages. No data.
Otoliths (sagitta). No data.
Habitat, distribution and abundance. Benthic, burrowing in sand or mud on the continental shelf (10–30 m). Mediterranean, Eastern Atlantic (south to Angola). Very common in the intertropical zone.
Common names. None.
- 86.6 **VERMA** Jordan & Evermann, 1896 Gender: F
Bull. U.S. natn. Mus., 47: 374 (type: *Sphagebranchus kendalli* Gilbert, 1891, by monotypy, '*off west coasts of Florida*').
- 86.6.1 ***Verma anguiformis* (Peters, 1877)**
Ophichthys (Sphagebranchus) anguiformis Peters, 1876 [1877], *Mber. Akad.*

Wiss. Berlin: 849 (15° 40' 01'' N., 23° 05' 08'' W., Cape Verde Islands). Holotype: ZMHU no. 9777.

Sphagebranchus caecus: Moreau, 1881, 3: 588.

Caecula caeca: Lozano Rey, 1947: 566, pl. 10 (fig. 3).

Eggs, larvae and young stages. See *Apterichthys caecus* (Linnaeus, 1758).

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Benthic, burrowing in sand or mud on the continental shelf (10–40 m). Mediterranean, eastern Atlantic, south to Cape Verde. Not common.

87 **Synaphobranchidae**

by J. Blache, M.-L. Bauchot & L. Saldanha

G: 3

Sp: 3

- 87.1 **SYNAPHOBRANCHUS** Johnson, 1862 Gender: M
Proc. zool. Soc. Lond.: 169 (type: *S. kaupii* Johnson, 1862, by monotypy).
Nettophichthys Holt, 1891, *Sci. Proc. R. Dublin Soc.*, 7: 122 (type: *N. retropinnatus* Holt, 1891, by monotypy).
- 87.1.1 **Synaphobranchus kaupii** Johnson, 1862
Synaphobranchus kaupii Johnson, 1862, *Proc. zool. Soc. Lond.*: 169 ('Madeira').
 Syntype: BMNH no. 1862.11.9.79.
Synaphobranchus pinnatus (nec Gronow, 1854): Günther, 1870, 8: 23 | Vaillant, 1888: 88, pl. 6 (fig. 2) | Goode & Bean, 1896: 143, fig. 164 | Collett, 1896: 54 | Ehrenbaum, 1902: 139 | Collett, 1905a: 45 | Holt & Byrne, 1906: 7 | Byrne, 1907: 1 | Zugmayer, 1911: 84 | Murray & Hjort, 1912a: 80, 101, 395, 423, fig. 57a, 264 | Roule, 1919: 99, pl. 6 (fig. 3b) | Vaillant, 1919: 135 | Koefoed, 1927: 58, pl. 2 (fig. 2) | Zugmayer, 1933: 86 | Noronha & Sarmiento, 1934: 166 | Nobre, 1935: 390 | Bruun, 1936: 1; 1937: 3–9, 2 fig. | Lozano Rey, 1947: 517, fig. 165–166 | Nybelin, 1948: 54 | Maul, 1948: 145 | Albuquerque, 1954–1956: 418 | Collins, 1954: 15 | Dollfus, 1955: 34, 109 | Postel, 1959–1960: 149 | Maurin, 1968: 15, 18, 26, 30, 91, fig. 5.
Nettophichthys retropinnatus Holt, 1891, *Scient. Proc. R. Dublin Soc.*, 7: 122 ('Ireland Sea'). Type: NMI no. 64.1896.
Nettophichthys retropinnatus: Holt & Calderwood, 1895: 511, pl. 61 (fig. 2).
Synaphobranchus pinnatus var. *parvipinnis* Roule, 1916, *Bull. Inst. océanogr. Monaco*, 320: 4 ('Sud-est du Portugal'). Syntypes: MOM no. 1248, 2183.
Synaphobranchus pinnatus var. *parvipinnis*: Roule, 1919: 99, pl. 6 (fig. 3).
Synaphobranchus kaupii: Castle, 1964: 40 | Wheeler, 1969: 224 | Geistdoerfer *et al.*, 1971b: 1183.
- Eggs, larvae and young stages. Collett, 1905b: 387, fig. 147 | Schmidt, 1906a: 236, pl. 9 (fig. 4–6); 1909c: 7, fig. 3, tab. 1–2 | Ehrenbaum, 1909: 387, fig. 147 | Laloy, 1910: 207 | Schmidt, 1913: 12, fig. 5–9, pl. 2 (fig. 1–4) | Bertin, 1926: 332, tab. 6 | Fish, 1927: 307 | Bruun, 1937: 9–29, pl. 1 | Bertin, 1939: 388 | Nybelin, 1948: 54 | Castle, 1964: 40 | Mead *et al.*, 1964: 576 | Castle, 1969: 26.
- Otoliths (sagitta). No data.
- Habitat, distribution and abundance. Benthic on the continental slope (400–800 m) but caught in deep abyssal waters, 2500 m. Cosmopolite but no record in Mediterranean (according to Grey, 1956, from ca 62° N., 19° W. to ca 5° S., 11° E. in eastern Atlantic). Very common.
- Common names. None.
- 87.2 **HISTIOBRANCHUS** Gill, 1883 Gender: M
Proc. U.S. natn. Mus., 6: 255 (type: *H. infernalis* Gill, 1883, by monotypy).
- 87.2.1 **Histiobranchus bathybius** (Günther, 1877)
Synaphobranchus bathybius Günther, 1877, *Ann. Mag. nat. Hist.*, (4) 20: 445 ('Pacific, ca 36° N., 178° E., 3749 m'). Type: BMNH no. 1900.7.19.2.
Histiobranchus infernalis Gill, 1883, *Proc. U.S. natn. Mus.*, 6: 255 (Atlantic, off U.S. coast, 38° N., 69° W.). Type: USNM no. 3279.
Histiobranchus infernalis: Goode & Bean, 1896: 145, fig. 165 | Zugmayer, 1933: 85.
Histiobranchus bathybius: Lütken, 1898: 7 | Koefoed, 1927: 60 | Castle, 1964: 33.
Synaphobranchus australis Regan, 1913, *Trans. R. Soc. Edinb.*, 49: 235, pl. 8 (fig. 5) ('South Indian Ocean and South Atlantic'). Syntypes: BMNH no. 1887.12.7.255.

Synaphobranchus infernalis: Bruun, 1936: 1; 1937: 5, fig. 1 | Norman & Trewavas, 1939: 358.

Synaphobranchus bathybius: Bruun, 1937: 7, fig. 2 | Norman & Trewavas, 1939: 358.

Eggs, larvae and young stages. Lea, 1913: 15, fig. 10, pl. 2 (no. 5) | Fish, 1927: 308 | Bruun, 1937: 11, fig. 3, 10–14, 17, tab. 6–7 | Bertin, 1939: 388 | Castle, 1964: 40; 1969: 22.

Otoliths (sagitta). Frost, 1926: 103.

Habitat, distribution and abundance. Benthic on the continental slope and deep abyssal waters, 3000 m and more. Cosmopolite. Not very common.

Common names. None.

- 87.3 **ILIOPHIS** Gilbert, 1892 Gender: M
Proc. U.S. natn. Mus., 14: 351 (type: *I. brunneus* Gilbert, 1891, by monotypy, 'Pacific, near Galapagos').

- 87.3.1 **Iliophis brunneus** Gilbert, 1892
Iliophis brunneus Gilbert, 1892, *Proc. U.S. natn. Mus.*, 14: 351 ('Pacific, near Galapagos, ca 0° 36' S., 89° W., 1159 m'). Holotype: USNM no. 44.403.
Iliophis brunneus: Gilbert, in Jordan & Davis, 1892: 671 | Koefoed, 1927: 61.

Complementary iconography. Goode & Bean, 1896: 141, fig. 162.

Eggs, larvae and young stages. No data.

Otoliths (sagitta). No data.

Habitat, distribution and abundance. Benthic in deep-abyssal waters to 2668 m.

Cosmopolite. One record near the area: ca 34° N., 33° W., 2615 m. Rare.

Common names. None.

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Apodes (anguillifomes) : Anguillidae, Simenchelidae,
Muraenidae, Heterenchelyidae, Serrivomeridae,
Nemichthyidae, Xencongridae, Cyemidae, Muraenesocidae,
Nettastomidae, Nettodaridae, Congridae, Derichthidae,
Echelidae, Nessorhamphidae, Ophichthyidae,
Synphobranchidae.

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