

An updated checklist of blenniiform fishes (Teleostei: Blenniiformes) in the North-Western Indian Ocean: Taxonomy, diversity, and conservation status

Hamid Reza ESMAEILI^{1,*•ID}, Saud M. AL JUFAILI^{2,*•ID}, Golnaz SAYYADZADEH^{1,3, ID}, Sorour ECHRESHAVI^{1, ID}

¹Ichthyology and Molecular Systematics Research Laboratory, Department of Biology, School of Science, Shiraz University, Shiraz, Iran.

²Department of Marine Science and Fisheries, Sultan Qaboos University, Muscat, Oman.

³Department of Biology, Faculty of Sciences, Lorestan University, 6815144316 Khorramabad, Iran.

*Corresponding authors: hresmaeili@shirazu.ac.ir; sjufaily88@gmail.com

Abstract

The current checklist presents species diversity of the order Blenniiformes in most parts of the Northwest Indian Ocean (NIO) and encompassing the marine waters of the Persian Gulf, Sea of Oman/Oman Sea, Arabian Sea, Red Sea and the Gulf of Aden. This updated checklist enumerates 81 species, representing 28 genera and two families. The family Blenniidae/ combtooth blennies present 25 genera and 64 species. Within this family, the genera *Ecsenius* and *Istiblennius*, each with seven species (8.64%), and the genus *Antennablennius* with six species (7.40%), comprise ranks first and second in terms of species diversity. The other 11 genera comprise one species each (1.24%). In the family Tripterygiidae/ triplefin blennies, the genus *Enneapterygius* presents 11 species (13.58%), *Helcogramma* 5 species (6.17%) and *Norfolkia* one species 1.24%. During the last 12 years, only three new species *Adelotremus leptus*, *Enneapterygius qirmiz* and *Entomacrodus solus* have been described from the region. Species diversity of both families in the Persian Gulf is lower than in the Oman, Arabian and Red Seas due to substantial variations in the environmental features and oceanographic characteristics of the Persian Gulf (e.g., sea surface temperature ranges (12-36°C), high salinity (>45), low depth (90-100 m), closed geographic position and its geological history during the glaciation in Pleistocene. Based on the IUCN red list, most of the reported species (75 species, 92.6%) have been rated as least concern (LC), two species (*Oman ypsilon* and *Omobranchus mekranensis*) are listed in the vulnerable (VU), and *Entomacrodus solus* is considered as endangered (EN). Ongoing research and intensive collections will likely reveal additional species in the northwest Indian Ocean.

Keywords: Fish diversity, Blenniidae, Tripterygiidae, Conservation, Persian Gulf, Arabian Sea, Iran, Oman.

Citation: Esmaeili, H.R., Al Jufaili, S.M., Sayyadzadeh, G., Echreshavi, S. 2022. An updated checklist of blenniiform fishes (Teleostei: Blenniiformes) in the North-Western Indian Ocean: Taxonomy, diversity, and conservation status. FishTaxa 24: 10-41.

Introduction

Checklists of species are important tools in the fields of biological and environmental sciences. In the period 2003-2022 (May), a mean of about 395 new fish species (including 243 freshwater species) have been described and named per year (Fricke et al. 2022) and a large number of new records have been reported and documented (Fig. 1). Much of this information is scattered across many scientific journals and gathering all taxonomic and biogeographical data available for species in an order or a family assists combining our level of knowledge and at the same time manifest areas in need of further investigation (Parenti and Randall 2020).

The blennies of the order Blenniiformes comprise about 947 small teleost fishes closely associated with coastal benthic habitats classified into six families (Fricke et al. 2022). Blenniiforms are generally small fish, only occasionally reaching lengths up to 55 cm, having elongated bodies and relatively large mouths and eyes. Blennies include the globally distributed families Blenniidae, Tripterygiidae (Notoclininae and Tripterygiinae), the temperate Clinidae, and three families (Chaenopsidae, Dactyloscopidae, and Labrisomidae) largely restricted to the Neotropical area (Lin and Hastings 2013; Nelson et al. 2016; Fricke et al. 2022). These fishes are mainly marine species but few species are found in freshwater or brackish waters (Hastings and Springer 2009).

Within the order Blenniiformes, the largest family is Blenniidae (combtooth blennies) with 58 genera and 405 species in two subfamilies Blenniinae with 14 genera and 96 species, and Salariinae with 42 genera and 309

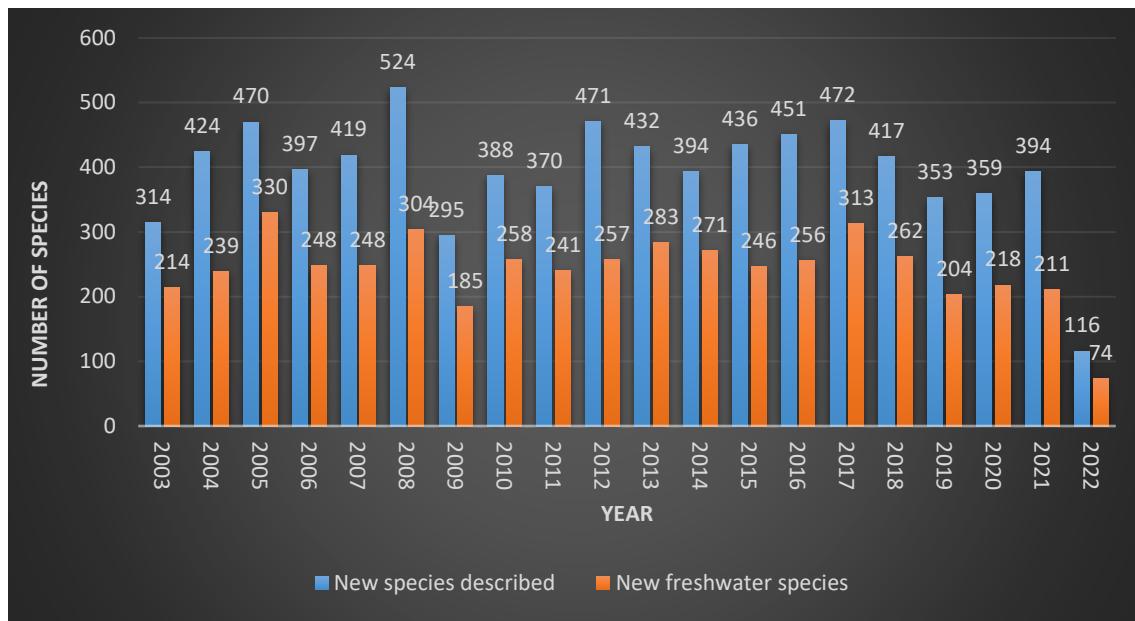


Figure 1. Number of fish species described from years 2003 through 2022.

species (Fricke et al. 2022). The family is distributed worldwide, with most species occurring in shallow coastal, tropical and warm temperate marine waters, along with a few species from fresh and/or brackish water. Despite being relatively well-known taxonomically, the phylogenetic relationships of the blenniids with the other five families of Blenniiformes are poorly known (Mehraban and Esmaeili 2018). The combtooth blennies have been the most studied among any of the other blennies, in part because they are by far the most speciose, widely distributed, can be easily collected, and the species occur in a variety of habitats including coral reefs, rocky intertidal, mangroves, oyster beds and in the lower reaches of most rivers (Hastings and Springer 2009; Lin and Hastings 2013; Nelson et al. 2016; Mehraban and Esmaeili 2018; Mehraban et al. 2020). Several species of blenniids are involved in mimetic associations with other fishes, being similar in external appearance to the other species (see e.g., Smith-Vaniz et al. 2001; Mehraban and Esmaeili 2018).

The fishes of the family Blenniidae are characterized by the following morphological characteristics (based on Nelson et al. 2016): Body naked (modified lateral-line scales in a few species); head usually blunt; premaxillae not protractile; jaws with comb-like teeth, fixed or freely movable (most species with at least some canine teeth); palatines toothless, vomer may have teeth; basisphenoid present except in *Nemophini*; dorsal fin with 3–17 flexible spines and 9–119 segmented rays (fewer spines than soft rays in most species); anal fin with two spines (the first is buried beneath genital tissue in females); pelvic fins present (except in two species of *Plagiotremus*), anterior to the pectorals, and with one short embedded spine (easily overlooked) and 2–4 segmented rays; pectoral rays not branched, 10–18; caudal-fin rays branched or unbranched; vertebrae usually 28–44 (up to 135 in *Xiphiasia*); adults without swimbladder except in *Phenablenius*, *Omx*, and most *Nemophini* where it may be minute and easily overlooked. These fish have very complex and contradictory systematics that several scientists have repeatedly reviewed (e.g., Norman 1943; Springer 1968; Williams 1990; Lin 2009; Lin and Hasting 2013).

The family Tripterygiidae (triplefins or threefin blennies) with 29 genera and 183 species comprises two subfamilies Notoclininae (2 genera and 3 species), and Tripterygiinae (27 genera and 270 species) (Fricke et al. 2022). Tripterygiids are a group of benthic-living blenniiform fishes (Nelson et al. 2016), inhabiting subtidal and intertidal rocky pools and coral reefs of cold, temperate, tropical, and subtropical seashores and offshore islands down to slopes below 500 meters depth (Fricke 1997, 2017; Esmaeili et al. 2022). The fishes of the

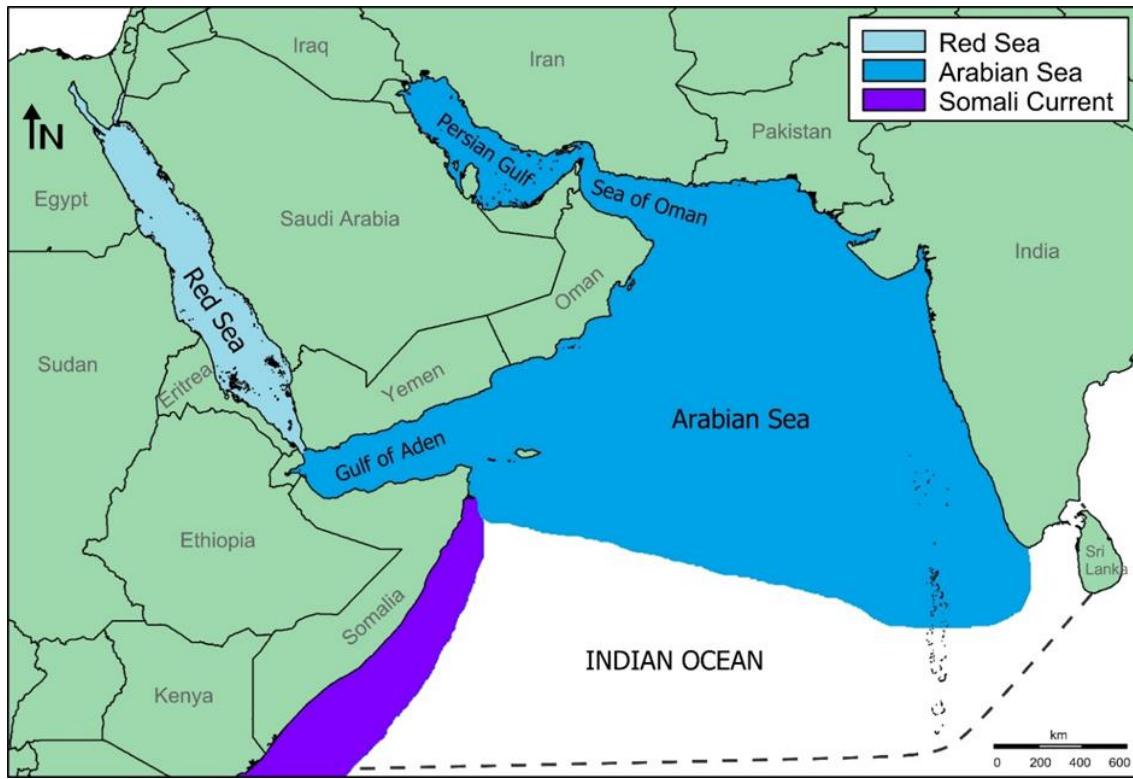


Figure 2. Map indicating marine boundaries of the studied area in the northwestern Indian Ocean.

family Tripterygiidae are characterized by the following morphological characteristics (based on Nelson et al. 2016): Dorsal fin divided into three distinct segments, the first two composed of spines and the third with never fewer than seven soft rays but fewer in number than the spines; no dorsal-fin spine articulating with pterygiophore serially associated with first segmented dorsal-fin ray; anal-fin spines 0-2 (usually 2); gill membranes broadly attached across isthmus; premaxillae protractile; no cirri on nape; scales usually ctenoid, with radii in the anterior field only. All species are characteristically small and do not exceed 151 mm SL [this length is reached by the New Zealand giant triplefin *Blennodon dorsale* (Clarke 1879)], but most of them are less than 30 mm SL (Fricke 1994a, 1997, 2017; Nelson et al. 2016; Esmaeili et al. 2022).

The combtooth and triplefin blennies are the only families found in the Northwest Indian Ocean (NIO). The Northwestern Indian Ocean (NIO) encompasses the marine waters of the northeast of Kenya on the eastern African coastline (hereafter referred to as Kenya), and the seas surrounding the Arabian Peninsula, that is, the Persian Gulf, the Sea of Oman, the Arabian Sea, the Red Sea and the Gulf of Aden (Jabado et al. 2017; Torquato et al. 2019) (Fig. 2). The NIO is characterized by substantial gradients in environmental features. In the Persian Gulf, for example, sea surface temperature (SST) ranges from 12°C in winter to over 36°C in summer, and salinity is often >45 (Reynolds 1993). In the Red Sea, salinity can reach 42.5 (Medio et al. 2000), and SST can rise to values of between 36 and 38°C in the south, while temperatures as low as 10°C have been recorded in the Gulf of Suez in the north. In contrast, the Arabian Sea and the ocean off Kenya exhibit moderate salinity (36–37) and relatively cool temperatures (20–26 and 25–29°C, respectively; Burt et al. 2011; Kayanne et al. 2006). This region consists of three Large Marine Ecosystems (LME): The Somali Coastal Current (LME 31), the Arabian Sea (LME 32), and the Red Sea (LME 33) (Fig. 2). The region includes and is bordered by 20 sovereign states: Bahrain, Djibouti, Egypt, Eritrea, India (west coast waters), Iraq, the Islamic Republic of Iran, Israel, Jordan, Kuwait, the Maldives, Oman, Pakistan, Qatar, the Kingdom of Saudi Arabia (the Red Sea and Persian Gulf waters), Somalia, Sri Lanka, Sudan, the United Arab Emirates (UAE) (Sea of Oman and Persian

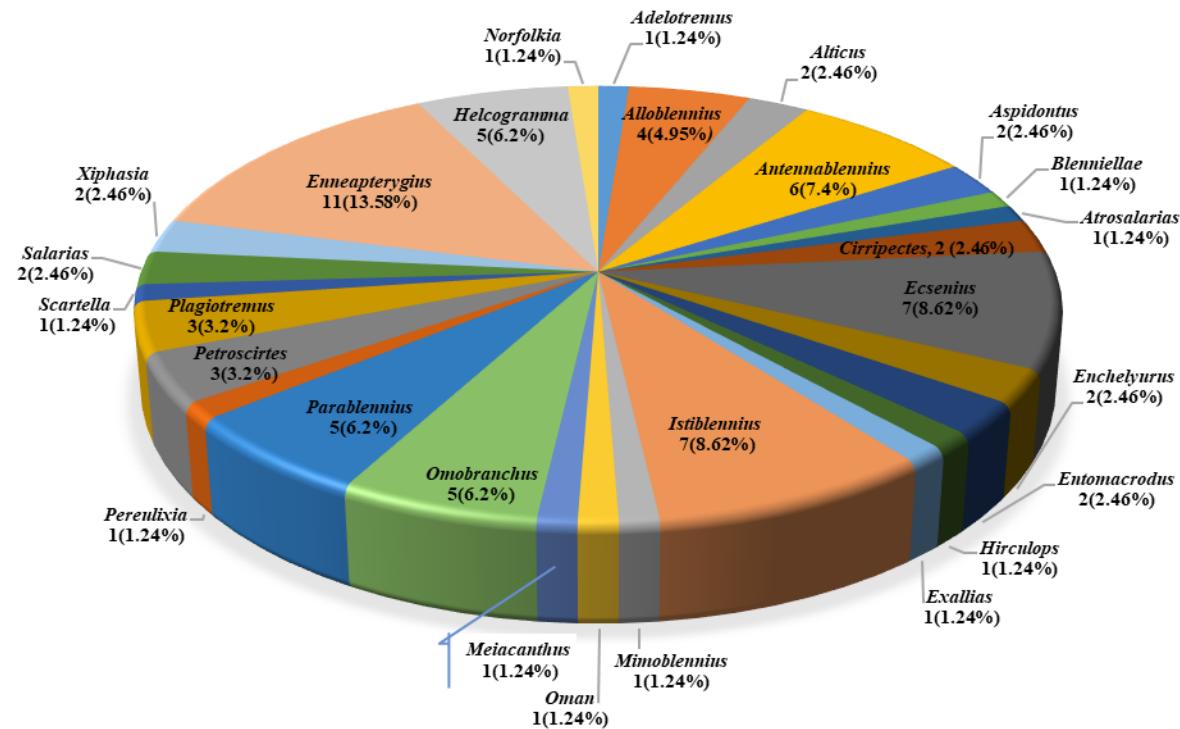


Figure 3. The genera diversity of Blenniidae and Tripterygiidae in the northerwestern Indian Ocean.

Gulf waters), and Yemen (including the Socotra Archipelago) (Jabado et al. 2017).

The current study covers blenniiform fishes of most parts of the Northwest Indian Ocean and encompasses the marine waters of the Persian Gulf, Sea of Oman, Arabian Sea, Red Sea and the Gulf of Aden (=Arabian Seas Region/ASR). It provides an updated checklist of the order Blenniiformes including two families, Blenniidae and Tripterygiidae in the subtidal and intertidal zones of the NIO.

Materials and Methods

Study Area: This checklist is a collection of works listed in references (see selected Bibliography, e.g. Smith 1959; Springer 1967, 1971; Bath 1977; Hadley Hansen 1986; Holleman 1991, 2005, 2006, 2007; Randall 1995; Golani and Bogorodsky 2010; Golani and Fricke 2018; Psomadakis et al. 2015; Mehraban and Esmaeili 2018; Eagderi et al. 2019; Esmaeili et al. 2022), and also, samples deposited in the Zoological Museum and Collection of Biology Department, Shiraz (ZM-CBSU). Genera and species are arranged alphabetically; the nomenclature and authorities used for Blenniiformes follow those of the online electronic version of the Catalog of Fishes (Fricke et al. 2022). English/common names are provided. The IUCN Red List of threatened species was followed to show the conservation status of each species (IUCN, 2022).

Results

In total, 81 species belonging to 28 genera and two families (Blenniidae and Tripterygiidae) are listed here. The family Blenniidae presents 25 genera and 64 species (Fig. 3). Within this family, the genera *Ecsenius* and *Istiblennius* each with 7 species, 8.64%, and the genus *Antennablennius* with 6 species, 7.40%, comprise ranks first and second in term of species diversity. The other 11 genera of blenniids namely *Adelotremus*, *Atrosalarias*, *Bleenniella*, *Exallias*, *Hirculops*, *Meiacanthus*, *Mimoblennius*, *Oman*, *Pereulixia* and *Scartella* comprise one species each, 1.24% (Fig. 3). In the Tripterygiidae family, the genus *Enneapterygius* presents 11 species

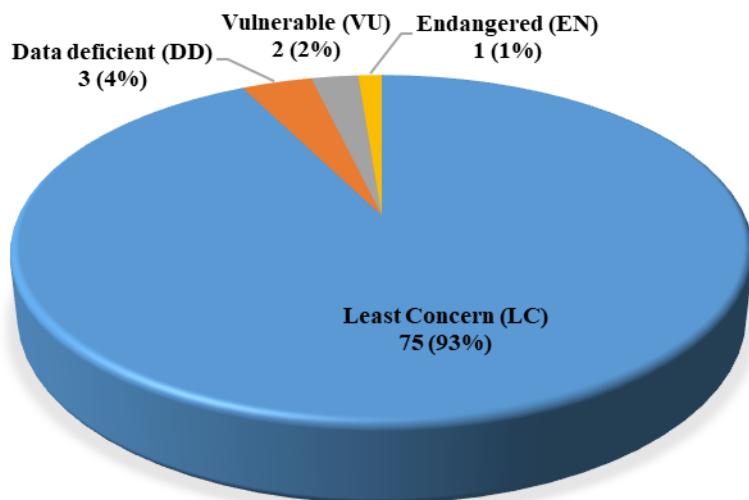


Figure 4. Number and percentage of Blenniidae and Tripterygiidae species in different IUCN categories.

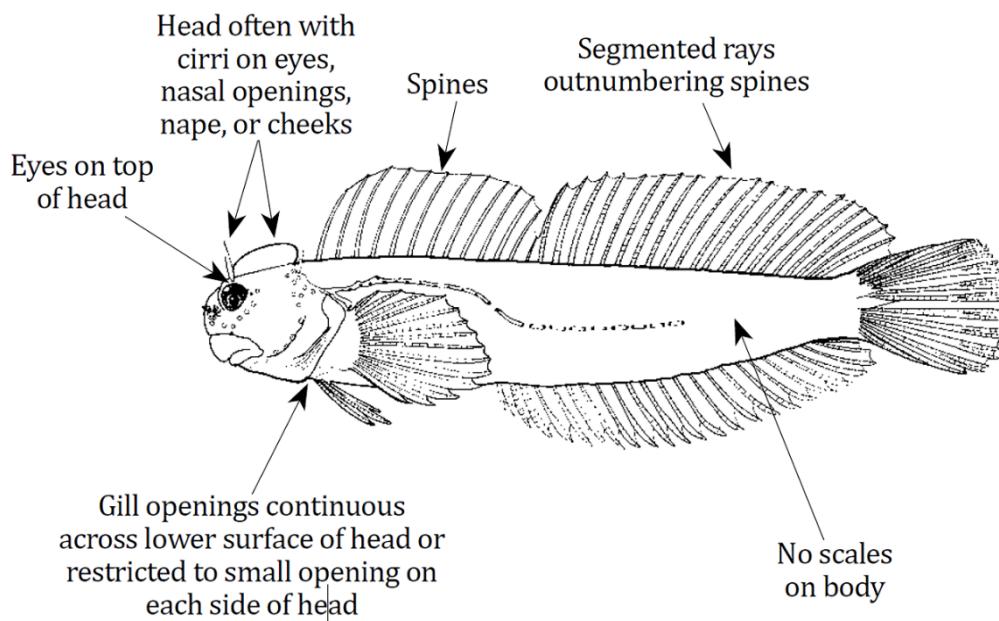


Figure 5. General morphology of a combtooth blenny, Psomadakis et al. (2015).

(13.58%), *Helcogramma* 5 species (6.17%) and *Norfolkia* one species or 1.24% (Fig. 3).

Based on the IUCN red list, most of the reported species (75 species, 92.6%) have been rated as least concern (LC), two species (*Oman ypsibn* and *Omobranchas mekranensis*) are listed in the vulnerable (VU) category, and *Entomacrodus solus* is considered as endangered (EN) (Fig. 4).

Checklist

Class: Actinopterygii

Order: Blenniiformes (2 families, 28 genera and 81 species)

Family: Blenniidae (25 genera and 64 species)

(Figs. 5, 6).

Adelotremus Smith-Vaniz & Rose, 2012

Adelotremus Smith-Vaniz [W.F.] and Rose [J.M.] 2012:40 [Zootaxa No. 3249] Masc. ***Adelotremus leptus*** Smith-Vaniz & Rose 2012. Type by original designation (also monotypic).

Blenniidae: Blenniinae (Smith-Vaniz 2017:179, Golani and Fricke 2018:136).

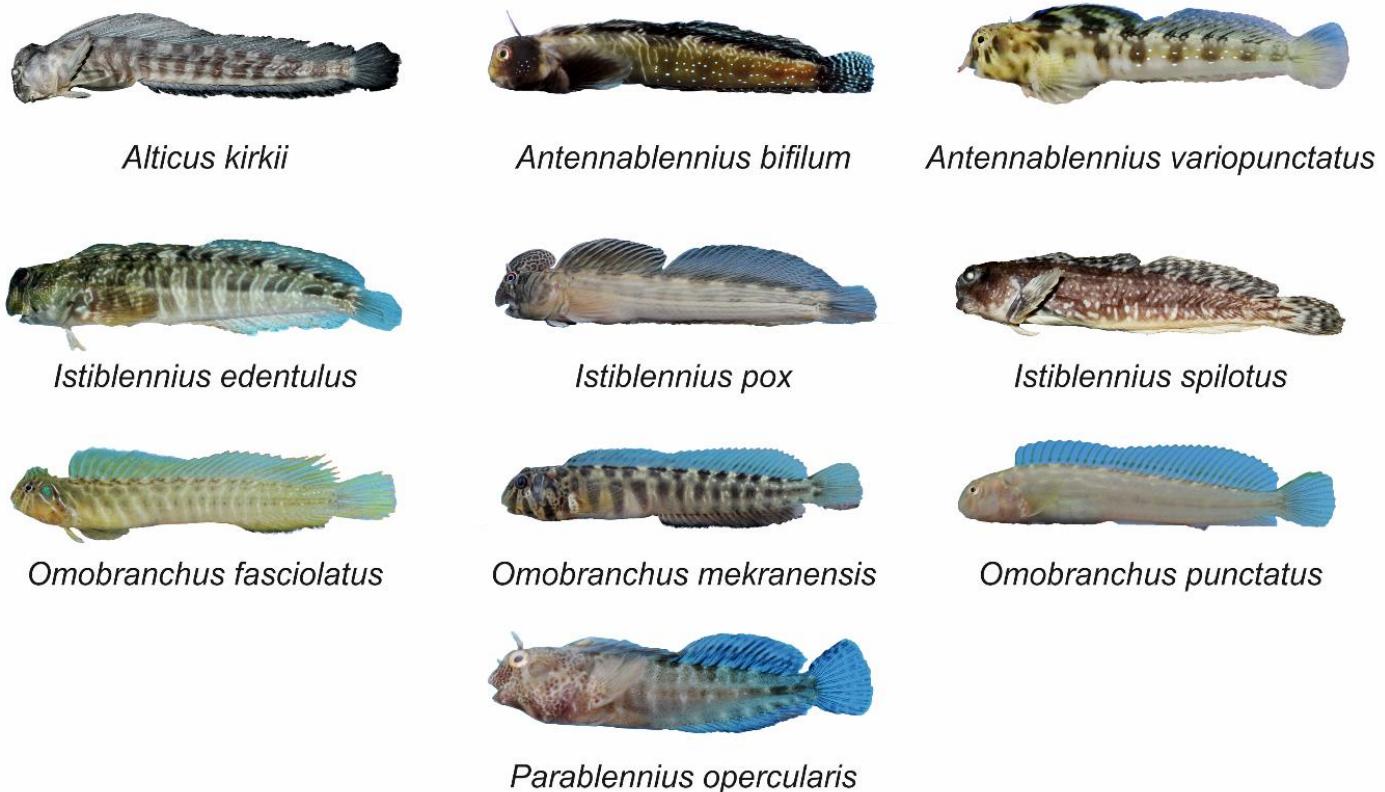


Figure 6. Some representatives of the combtooth blennies from the northwestern Indian Ocean, Mehraban and Esmaeili (2018).

1) *Adelotremus leptus* Smith-Vaniz & Rose, 2012

Adelotremus leptus Smith-Vaniz [W. F.] & Rose [J. M.] 2012:40, Figs. 1-6 [Zootaxa No. 3249] Near Sharm el Sheikh, Naama Bay (Marsa el At), 27°54'38"N, 34°19'44"E, Egypt, Red Sea, depth 15 meters.

EN: -

Type: Holotype (unique): USNM 402770.

Distribution: Western Indian Ocean: Red Sea endemic, Egypt.

Environment: Pelagic-neritic.

Depth range: 1-15 m.

IUCN: Data deficient (DD).

***Alloblennius* Smith-Vaniz & Springer, 1971**

Alloblennius Smith-Vaniz [W.F.] & Springer [V.G.] 1971:10 [Smithsonian Contributions to Zoology No. 73] Masc. *Rhabdoblennius pictus* Lotan 1970. Type by original designation. (Bath 1983:76, Springer 1986:743, Springer et al. 1998:19, Bath 2001:5, Hastings and Springer 2009:71, Smith-Vaniz and Allen 2012:60, Fricke et al. 2018:306, Golani and Fricke 2018:137).

Blenniidae: Salarinae.

2) *Alloblennius jugularis* (Klunzinger, 1871)

Blennius jugularis Klunzinger [C.B.] 1871:493 [Verhandlungen der K.-K. zoologisch-botanischen Gesellschaft in Wien v. 21] Al-Qusair, Red Sea Governorate, Egypt, Red Sea.

EN: Jugular blenny.

Type: Lectotype: ZMB 10496. Paralectotypes: ZIN 2617 (1); ZMB 8025 (1), ?10496 (1). Lectotype established

by Smith-Vaniz and Springer 1971:12.

Distribution: Western Indian Ocean: known only from the Gulf of Aqaba and the Red Sea, endemic.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

3) *Alloblennius pictus* (Lotan, 1970)

Alloblennius pictus Lotan [R.] 1970:376, fig. 7 [Journal of Zoology v. 18 (no. 4) (for 1969)] Nocra Islet, Sinai, Egypt, or Eilat, Israel, Gulf of Aqaba, Red Sea.

EN: -

Type: Holotype: HUJ 10093. Paratypes: (54) HUJ 10094 (6), 12366 (46), 12367 (4), 12368 (3), 12410 (12).

Type catalog: Golani 2006:33 with more than 54 paratypes.

Distribution: Red Sea, northwestern Indian Ocean: Gulf of Aden, Gulf of Aqaba, and Djibouti, Gulf of Tadjoura.

Environment: Demersal .

Depth range: -

IUCN: Least Concern (LC).

4) *Alloblennius anuchalis* (Springer & Spreitzer, 1978)

Antennablennius anuchalis Springer [V.G.] & Spreitzer [A.E.] 1978:8, fig. 4 [Smithsonian Contributions to Zoology No. 268] 1 mile east of Beauchamp near Jacotet Bay, 0.3 miles east of Ste. Marie Bridge, Mauritius, Mascarenes, southwestern Indian Ocean, depth to 1.5 meters.

EN: Blennies fish.

Type: Holotype (unique): SAIAB [formerly RUSI] 2136.

Distribution: Western Indian Ocean: southern Oman; Mauritius (Mascarenes).

Environment: Demersal.

Depth range: 6-10 m.

IUCN: Least Concern (LC).

5) *Alloblennius parvus* (Springer & Spreitzer, 1978)

Alloblennius parvus Springer [V.G.] & Spreitzer [A.E.] 1978:4, fig. 1 [Smithsonian Contributions to Zoology No. 268] Surge channel at far end of cove, 0.5 kilometers north of Iconi, N'Gouni Reef, Grand Comore Island, western Indian Ocean, depth to 5 meters.

EN: Dwarf blenny.

Type: Holotype: CAS 33590. Paratypes: ANSP 137862 (7); BMNH 1977.1.10.13-15 (3) [ex CAS 33601]; BPBM 20467 (4); CAS 36966 (10); SAIAB [formerly RUSI] 913 (5, not found in 1996); USNM 216309 (6, 3 c&s), 216310 [ex CAS 33606] (1). Type catalog: Böhlke 1984:29, Springer et al. 1991:18.

Distribution: Western Indian Ocean: KwaZulu-Natal (South Africa) to Comoros, Madagascar and Mauritius (Mascarenes); Oman.

Environment: Demersal.

Depth range: 6-10 m.

IUCN: Least Concern (LC).

***Alticus* Lacepède, 1800**

Alticus Lacepède [B.G.E.] (ex Commerson) 1800:479 (footnote) [Histoire naturelle des poissons (Lacepède) v. 2] Masc. *Blennius saliens* Lacepède 1800. Type by monotypy. Name published in the synonymy of *Blennius saliens*, but available because of later use (possibly by Bleeker 1869:234, Jordan and Seale 1906:421 and others

(Art. 11.6)). An alternative view is that *Alticus* was part of a polynomial and not available (genus would then date to Valenciennes); see remarks under Opinion 89 in Appendix B in Eschmeyer et al. 1990 •Valid as *Alticus* Lacepède 1800 -- (Smith-Vaniz and Springer 1971:14, Yoshino in Masuda et al. 1984:300, Bath 1986:354 [6217], Bath 2001:5, Springer 2001:3540, Hastings and Springer 2009:71, Lin and Hastings 2013:3, Fricke et al. 2018:306, Golani and Fricke 2018:137, Fricke et al. 2019:255).

Blenniidae: Salariinae.

6) *Alticus kirkii* (Günther, 1868)

Alticus kirkii Günther [A.] 1868:458 [Annals and Magazine of Natural History (Series 4) v. 1 (no. 6)] Zanzibar, Tanzania, western Indian Ocean.

EN: Kirk's blenny.

Type: Holotype (unique): BMNH 1868.2.29.48.

Distribution: Western Indian Ocean: East Africa, Persian Gulf and Madagascar east to western India.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

7) *Alticus saliens* (Forster, 1788)

Alticus salarias Valenciennes [A.] in Cuvier & Valenciennes 1836:337 [Histoire naturelle des poissons v. 11] Sri Lanka.

EN: Leaping blenny.

Type: Lectotype: MNHN 0000-0855. Paralectotypes: MNHN A-1793 (2) Red Sea, A-1794 (1) Bay of Ganges, A-1795 (1) New Ireland, A-1797 (1) Java; RMNH 17273 (1) Java. Type catalog: Bauchot 1967:24-25. Composite species, based in part (Red Sea) on *Alticus magnusi* Klausewitz 1964. Lectotype selected by Williams (not researched, possibly unpublished).

Distribution: Indo-Pacific: Red Sea to the Society Islands, north to the Ryukyu and Bonin Islands, south to Queensland; Mariana Islands in Micronesia.

Environment: Demersal.

Depth range: 0-2 m.

IUCN: Data deficient (DD).

***Antennablennius* Fowler, 1931**

Antennablennius (subgenus of *Blennius*) Fowler [H. W.] 1931:245 [Proceedings of the Academy of Natural Sciences of Philadelphia v. 83] Masc. *Blennius hypenetus* Klunzinger 1871. Type by original designation (also monotypic) •Valid as *Antennablennius* Fowler 1931 -- (Bath 1983:50, Springer 1986:743, Springer et al. 1998:20, Bath 2001:5, Hastings and Springer 2009:71, Smith-Vaniz and Allen 2012:61, Fricke et al. 2018:307, Golani and Fricke 2018:137).

Blenniidae: Salariinae.

8) *Antennablennius adenensis* (Fraser-Brunner, 1951)

Antennablennius adenensis Fraser-Brunner [A.] 1951:219 [Annals and Magazine of Natural History (Series 12) v. 4 (no. 39) (art. 21)] Tide pool at Aden, Yemen, Gulf of Aden, northwestern Indian Ocean.

EN: Aden blenny.

Type: Holotype: BMNH 1954.4.26.1. Paratypes: (16) BMNH 1954.4.26.2-16 (8 of 15), 1954.4.26.17-26 (8 of 10).

Distribution: Red Sea; northwestern Indian Ocean: Gulf of Aden and Persian Gulf east to Pakistan.

Environment: Demersal.

Depth range: 0-2 m.

IUCN: Least Concern (LC).

9) *Antennablennius australis* (Fraser-Brunner, 1951)

Antennablennius australis Fraser-Brunner [A.] 1951:218, Fig. 5 [Annals and Magazine of Natural History (Series 12) v. 4 (no. 39) (art. 21)] Inyak, Delagoa Bay, Mozambique, southwestern Indian Ocean.

EN: Moustached rockskipper.

Type: Holotype: BMNH 1920.12.6.24. Paratypes: BMNH 1920.7.23.58 (1).

Distribution: Southern Red Sea, western Indian Ocean: East Africa south to Port Elizabeth (South Africa), east to Madagascar.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

10) *Antennablennius bifilum* (Günther, 1861)

Antennablennius bifilum Günther [A.] 1861:225 [Catalogue of the fishes in the British Museum v. 3] No locality stated [is South Africa].

EN: Horned rock skipper.

Type: Holotype (unique): BMNH 1859.5.7.70.

Distribution: Western Indian Ocean: South Africa, East Africa, Persian Gulf, Mozambique Channel, Aldabra, Comoros, Madagascar and Mascarenes east to India.

Environment: Demersal.

Depth range: 18-37 m.

IUCN: Least Concern (LC).

11) *Antennablennius hypenetes* (Klunzinger, 1871)

Antennablennius hypenetes Klunzinger [C.B.] 1871:492 [Verhandlungen der K.-K. zoologisch-botanischen Gesellschaft in Wien v. 21] Al-Qusair, Red Sea Governorate, Egypt, Red Sea.

EN: Arabian blenny.

Type: Syntypes: ZIN 2645 (1); ZMB 8024 (1), 10498 (1).

Distribution: Red Sea, northwestern Indian Ocean: Gulf of Aden, Gulf of Oman, Persian Gulf.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

12) *Antennablennius simonyi* (Steindachner, 1902)

Antennablennius simonyi Steindachner [F.] 1902:317 [Anzeiger der Kaiserlichen Akademie der Wissenschaften, Wien, Mathematisch-Naturwissenschaftliche Classe v. 39 (no. 24) (art. 76)] Socotra; Bal Haf, south and east coasts of Arabia.

EN: Simony's blenny.

Type: Syntypes: (several) NMW 76243 (4), 78250 (2). Illustrated and described in detail in Steindachner 1903:148, Pl. 1 (fig. 2).

Distribution: Northwestern Indian Ocean: Gulf of Aden, Socotra and Gulf of Oman to Persian Gulf.

Environment: Demersal.

Depth range: 0-7 m.

IUCN: Least Concern (LC).

13) *Antennablennius variopunctatus* (Jatzow & Lenz, 1898)

Antennablennius variopunctatus Jatzow [R.] & Lenz [H.] 1898:511, Pl. 35 (fig. 8) [Abhandlungen der

Senckenbergischen Naturforschenden Gesellschaft v. 21] Zanzibar, Tanzania, western Indian Ocean.

EN: Orangedotted blenny.

Type: No types known.

Distribution: Western Indian Ocean: East Africa, Persian Gulf and Gulf of Oman east to Pakistan.

Environment: Demersal.

Depth range: 0-7 m.

IUCN: Least Concern (LC).

***Aspidontus* Cuvier, 1834**

Aspidontus Cuvier [G.] in Quoy & Gaimard 1834:719 [Voyage de découvertes de "l'Astrolabe" Zoologie, v. 3 (Pt 2)] Masc. *Aspidontus taeniatus* Quoy and Gaimard 1834. Type by monotypy. •Synonym of *Omobranchus* Valenciennes 1836 -- (Lindberg & Krasyukova 1975:31). •Valid as *Aspidontus* Cuvier, 1834 -- (Smith-Vaniz 1976:53, Yoshino in Masuda et al. 1984:297, Springer 1986:743, Smith-Vaniz 1987:3, Springer 2001:3539, Hoese and Bray 2006:1542, Hastings and Springer 2009:70, Hastings and Springer 2009:6, Smith-Vaniz and Rose 2012:43, Fricke et al. 2018:307, Golani and Fricke 2018:137, Fricke et al. 2019:255).

Blenniidae: Blenniinae.

14) *Aspidontus taeniatus* (Quoy & Gaimard, 1834)

Aspidontus taeniatus Quoy [J.R.C.] & Gaimard [J.P.] 1834:719, Pl. 19 (fig. 4) [Voyage de découvertes de "l'Astrolabe" Zoologie, v. 3 (Pt 2)] Agana, Guam, Mariana Islands, western Pacific; northern New Guinea.

EN: False cleanerfish.

Type: No types at MNHN. Type catalog: Bauchot 1967:5.

Distribution: Red Sea; Indo-West Pacific: East Africa, South Africa, Socotra, Aldabra, Comoros, Madagascar, Saint Brandon's Shoals and Mascarenes east to Marshall Islands, Marquesas Islands and Tuamotu Archipelago, north to Kagoshima Prefecture (southern Japan) and Ogasawara Islands, south to southern New South Wales (Australia).

Environment: Reef-associated.

Depth range: 3-25 m.

IUCN: Least Concern (LC).

15) *Aspidontus dussumieri* (Valenciennes, 1836)

Aspidontus dussumieri Valenciennes [A.] in Cuvier & Valenciennes 1836:282 [Histoire naturelle des poissons v. 11] Réunion, western Mascarenes, southwestern Indian Ocean.

EN: Lance blenny.

Type: Holotype (unique): MNHN A-2084. Type catalog: Bauchot 1967:7.

Distribution: Red Sea, Indo-West Pacific: East Africa, South Africa, Socotra, Aldabra, Madagascar, Saint Brandon's Shoals and Mascarenes east to Society Islands and Tuamotu Archipelago, north to southern Japan and Ogasawara Islands, south to Western Australia, northern New South Wales (Australia) and Tonga.

Environment: Reef-associated.

Depth range: 3-25 m.

IUCN: Least Concern (LC).

***Blenniella* Reid, 1943**

Blenniella Reid [E.D.] 1943:383 [Journal of the Washington Academy of Sciences v. 33 (no. 12)] Fem. *Blenniella rhessodon* Reid 1943. Type by original designation (also monotypic). •Synonym

of *Istiblennius* Whitley 1943 -- (Smith-Vaniz and Springer 1971:24, Bath 1986:356). •Valid as *Blenniella* Reid,

1943 -- (Springer and Williams 1994:23, Bath 2001:5, Springer 2001:3543, Hoese and Bray 2006:1543, Hastings and Springer 2009:71, Lin and Hastings 2013:3, Fricke et al. 2018:307, Golani & Fricke 2018:138, Fricke et al. 2019:255).

Blenniidae: Salariinae.

16) *Blenniella periophthalmus* (Valenciennes, 1836)

Blenniella periophthalmus Valenciennes [A.] in Cuvier & Valenciennes 1836:282 [Histoire naturelle des poissons v. 11] Réunion, western Mascarenes, southwestern Indian Ocean.

EN: Blue-dashed rock skipper.

Type: Holotype (unique): MNHN A-2084. Type catalog: Bauchot 1967:7.

Distribution: Red Sea, Indo-West Pacific: East Africa, South Africa, Socotra, Aldabra, Madagascar, Saint Brandon's Shoals and Mascarenes east to Society Islands and Tuamotu Archipelago, north to southern Japan and Ogasawara Islands, south to Western Australia, northern New South Wales (Australia) and Tonga.

Environment: Reef-associated.

Depth range: 0-3 m.

IUCN: Least Concern (LC).

***Atrosalarias* Whitley, 1933**

Atrosalarias Whitley [G.P.] 1933:93 [Records of the Australian Museum v. 19 (no. 1)] Masc. *Salarias phaiosoma* Bleeker 1855. Type by original designation (also monotypic). Twice misspelled *Astrosalarias* by Springer and Smith-Vaniz 1968:10, 11. •Valid as *Atrosalarias* Whitley 1933 -- (Springer and Smith-Vaniz 1968:2, Smith-Vaniz and Springer 1971:18, Yoshino in Masuda et al. 1984:298, Suzuki and Senou 1999:259, Bath 2001:5, Springer 2001:3540, Hoese and Bray 2006:1543, Hastings and Springer 2009:71, Hastings and Springer 2009:8, Lin and Hastings 2013:3, Fricke et al. 2018:307, Golani and Fricke 2018:138, Fricke et al. 2019:255).

Blenniidae: Salariinae.

17) *Atrosalarias fuscus* (Rüppell, 1838)

Atrosalarias fuscus Rüppell [W.P.E.S.] 1838:135, Pl. 32 (fig. 2) [Neue Wirbelthiere zu der Fauna von Abyssinien gehörig. Fische des Rothen Meeres] Massawa, Eritrea, Red Sea. Lectotype: SMF 1892.

EN: -

Type: Lectotype: SMF 1892. Paralectotypes: SMF 8521 (1). Lectotype established by Dor 1984:228.

Distribution: Red Sea, Indian Ocean: East Africa and Socotra east to Nicobar Islands and western Sumatra (Indonesia).

Environment: Reef-associated.

Depth range: 2-12 m.

IUCN: Least Concern (LC).

***Cirripectes* Swainson, 1839**

Cirripectes (subgenus of *Salarias*) Swainson [W.] 1839:182, 275 [The natural history and classification v. 2] Masc. *Salarias variolosus* Valenciennes 1836. Type by monotypy. Spelled *Cirripectus* by Swainson 1839:79, 80, first revisers for selection of generic spelling evidently were McCulloch and McNeil 1918 (Williams 1988:7). As a subgenus of *Salarias* on p. 182. •Valid as *Cirripectes* Swainson 1839 -- (Smith-Vaniz and Springer 1971:19, Fukao 1984, Yoshino in Masuda et al. 1984:299, Springer 1986:745, Williams 1988, Williams 1990:17, Bath 2001:5, Springer 2001:3541, Hoese and Bray 2006:1544, Hastings and Springer 2009:71, Williams 2010:3, Lin and Hastings 2013:3, Stewart et al. 2015:1531, Delrieu-Trottin et al. 2018:131, Fricke et

al. 2018:309, Golani and Fricke 2018:138, Fricke et al. 2019:255, Hoban and Williams 2020:1).

Blenniidae: Salariinae.

18) *Cirripectes filamentosus* (Alleyne & Macleay, 1877)

Cirripectes filamentosus Alleyne [H.G.] & Macleay [W.] 1877:337, Pl. 14 (fig. 1) [Proceedings of the Linnean Society of New South Wales v. 1 (pts 3-4)] Cape York, Queensland, Australia.

EN: Filamentous blenny.

Type: Holotype (unique): AMS I.16408-001 [ex MAMU F1035]. Type catalog: Stanbury 1969:209.

Distribution: Southern Red Sea, Indo-West Pacific: East Africa, Persian Gulf, Seychelles, Madagascar and Saint Brandon's Shoals east to Philippines, New Ireland (Papua New Guinea) and Solomon Islands, north to southern Japan, south to Western Australia and New Caledonia, throughout Indo-Australian Archipelago to the Solomon Islands, as far as Taiwan but not on the Pacific Plate.

Environment: Reef-associated.

Depth range: 0-20 m.

IUCN: Least Concern (LC).

19) *Cirripectes castaneus* (Valenciennes, 1836)

Cirripectes castaneus Valenciennes [A.] in Cuvier & Valenciennes 1836:324 [Histoire naturelle des poissons v. 11] Mauritius, Mascarenes, southwestern Indian Ocean.

EN: Chestnut eyelash-blenny.

Type: Holotype (unique): MNHN A-1799. Type catalog: Bauchot 1967:26.

Distribution: Indo-West Pacific: Red Sea to Tonga, north to southern Japan; south to Lord Howe Island; Palau, Ifaluk, and Kapingamarangi in Micronesia.

Environment: Reef-associated.

Depth range: 0-32 m.

IUCN: Least Concern (LC).

***Ecsenius* McCulloch, 1923**

Ecsenius McCulloch [A.R.] 1923:121 [Records of the Australian Museum v. 14 (no. 2)] Masc. *Ecsenius mandibularis* McCulloch 1923. Type by original designation (also monotypic). •Valid as *Ecsenius* McCulloch 1923 -- (Springer 1971:4, Smith-Vaniz and Springer 1971:22, Springer 1972:1, McKinney & Springer 1976, Yoshino in Masuda et al. 1984:300, Springer 1986:745, Springer 1988:1, Springer 1991:100, Springer and Randall 1999:39, Bath 2001:5, Springer 2001:3540, Springer & Allen 2004:1, Hoese and Bray 2006:1546, Hastings and Springer 2009:71, Lin and Hastings 2013:3, Attaran-Farimani et al. 2016:171, Fricke et al. 2018:309, Golani and Fricke 2018:138, Allen et al. 2019:68, Fricke et al. 2019:256).

Blenniidae: Salariinae.

20) *Ecsenius nalolo* (Smith, 1959)

Ecsenius nalolo Smith [J.L.B.] 1959:245, Fig. 10 [Ichthyological Bulletin, Department of Ichthyology, Rhodes University No. 14] Pinda, Mozambique, western Indian Ocean.

EN: Nalolo.

Type: Holotype: SAIAB [formerly RUSI] 254. Paratypes: (9) not researched.

Distribution: Central and southern Red Sea, western Indian Ocean: East Africa, South Africa, Socotra, Comoros, Madagascar and Cargados Carajos east to Maldives and Chagos Archipelago. Former northern Red Sea records are now assigned to *E. dentex* Springer 1988.

Environment: Reef-associated.

Depth range: -

IUCN: Least Concern (LC).

21) *Ecsenius pulcher* (Murray, 1887)

Ecsenius pulcher Murray [J.A.] 1887:47 [Journal of the Bombay Natural History Society v. 2 (pt 1)] Manora Rocks, Karachi, Pakistan.

EN: Gulf Blenny.

Type: Lectotype: BMNH 1887.9.22.59 (male). Paralectotypes: BMNH 1887.9.22.60 (female). Lectotype selected by Springer 1988:32.

Distribution: Northwestern Indian Ocean: Persian Gulf and Gulf of Oman coast of Oman, and northwestern coast of the Indian subcontinent as far south as the Gulf of Kutch.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

22) *Ecsenius aroni* Springer, 1971

Ecsenius aroni (*Ecsenius*) Springer [V.G.] 1971:24, fig. 19 [Smithsonian Contributions to Zoology No. 72] Bay at El Hamira, Sinai Peninsula, Egypt, Gulf of Aqaba, Red Sea, depth to 18 meters.

EN: Aron's blenny.

Type: Holotype: USNM 204468. Paratypes: BMNH 1971.6.11.1 (1); HUJ 5385 (1); USNM 204550 (2), 204556 (1, now 0, 1 to HUJ), 204557 (2, now 0, 2 to HUJ), 204558 (1), 204560 (21), 204561 (1, now 0, 1 to BMNH), 204562 (7), 204690 (12, 4 c&s). Type catalog: Springer et al. 1991:4, Golani 2006:32.

Distribution: Western Indian Ocean: Red Sea and Gulf of Aqaba; south to Djetta, Saudi Arabia and Towartit Reef, Sudan.

Environment: Reef-associated.

Depth range: 10-37 m.

IUCN: Least Concern (LC).

23) *Ecsenius dentex* Springer, 1988

Ecsenius dentex Springer [V.G.] 1988:69, Pl. 8 (fig. 4); Fig. 35d [Smithsonian Contributions to Zoology No. 465] Reef near road at Marsa Muqabila, northwestern coast of Gulf of Aqaba, Sinai Peninsula, Egypt, Red Sea, depth to 4.1 meters.

EN: -

Type: Holotype: USNM 276351. Paratypes: BPBM 13394 (2), 29663 (5, now 4); HUI E63/33 (2), E63/36 (3), 3531 (1), F-3542 (1), F-3551 (3), F-3553 (3); F-4376 (6); F-4384 (1); ROM 43606 (4); SMF 5119 (1); USNM 200602 (4, 1 c&s), 201754 (3), 204567 (62, not 61), 204568 (20), 204570-71 (36, 39), 276352 (9) Type catalog: Springer et al. 1991:7.

Distribution: Western Indian Ocean: occurs only in the Gulf of Aqaba and northernmost part of the Red Sea adjacent to the gulf.

Environment: Demersal.

Depth range: 0-4 m.

IUCN: Least Concern (LC).

24) *Ecsenius frontalis* (Valenciennes, 1836)

Ecsenius frontalis Valenciennes [A.] (ex. Ehrenberg) in Cuvier & Valenciennes 1836:328 [Histoire naturelle des poissons v. 11; ref. 1005] Massawa, Eritrea, Red Sea.

EN: Smooth-fin blenny.

Type: Syntypes: ZMB 1947 (5) poor condition. Type catalog: Bauchot 1967:35 [ref. 20734].

Distribution: Western Indian Ocean: known only from Red Sea, including gulfs of Aqaba and Suez, and the

westernmost part of the Gulf of Aden.

Environment: Reef-associated.

Depth range: 3-27 m.

IUCN: Least Concern (LC).

25) *Ecsenius gravieri* (Pellegrin, 1906)

Ecsenius gravieri Pellegrin [J.] 1906:93 [5] [Bulletin du Muséum National d'Histoire Naturelle (Série 1) v. 12 (no. 2)] [Baie de Tadjoura] Tadjourah, Djibouti, Gulf of Aden, northwestern Indian Ocean.

EN: Red Sea mimic blenny.

Type: Holotype (unique): MNHN 1904-0319. Type catalog: Bauchot 1967:28. On p. 5 of separate.

Distribution: Western Indian Ocean: Red Sea (including the Gulf of Aqaba) to the westernmost Gulf of Aden.

Environment: Reef-associated.

Depth range: -

IUCN: Least Concern (LC).

26) *Ecsenius midas* Starck, 1969

Ecsenius midas (Anthiiblennius) Starck [W.A., II] 1969:2, Figs. 1, 3, 4 [Notulae Natura (Philadelphia) No. 419; ref. 4192] D'Arros Island, Amirante Islands, western Indian Ocean, depth 85 feet.

EN: Persian blenny.

Type: Holotype: ANSP 111148. Paratypes: ANSP 111149 (1), 111854 (1, c&s); USNM 202422 (1). Type catalog: Böhlke 1984:29 [ref. 13621], Springer et al. 1991:15 [ref. 18888].

Distribution: Indo-Pacific: Gulf of Aqaba and southeast coast of Africa to the Marquesan Islands.

Environment: Reef-associated.

Depth range: 2-40 m.

IUCN: Least Concern (LC).

***Enchelyurus* Peters, 1868**

Enchelyurus Peters [W.C.H.] 1868:268 [Monatsberichte der Königlichen Preussischen Akademie der Wissenschaften zu Berlin 1868] Masc. *Enchelyurus flavipes* Peters 1868. Type by monotypy. •Valid as *Enchelyurus* Peters 1868 -- (Springer 1972:4, Yoshino in Masuda et al. 1984:296, Springer 1985:91, Springer 2001:3540, Hoese and Bray 2006:1549, Hastings and Springer 2009:70, Golani and Fricke 2018:139).

Blenniidae: Blenniinae.

27) *Enchelyurus kraussii* (Kunzinger, 1871)

Enchelyurus kraussii Kunzinger [C.B.] 1871:497 [Verhandlungen der K.-K. zoologisch-botanischen Gesellschaft in Wien v. 21] Al-Qusair, Red Sea Governorate, Egypt, Red Sea.

EN: Krauss' blenny.

Type: Lectotype: ZMB 8029. Paralectotypes: SMF 1662 (2); SMNS 1868 (2); ZIN 2647 (2); ZMB 8029 (2), 10506 (1). Type catalog: Fricke 1992:6, Fricke 2005:18, Lectotype selected by Springer 1972:7.

Distribution: Indo-West Pacific: Red Sea to Mariana Islands, north to the Ryukyu Islands, south to the southern Great Barrier Reef. Recently recorded from Tonga.

Environment: Reef-associated.

Depth range: 0-15 m.

IUCN: Least Concern (LC).

28) *Enchelyurus petersi* (Kossmann & Räuber, 1877)

Enchelyurus petersi Kossmann [R.] & Räuber [H.] 1877:21, Pl. 2 (fig. 9) [Zoologische Ergebnisse einer im Auftrage der Königlichen Academie der Wissenschaften] Red Sea.

EN: -

Type: Holotype (unique): whereabouts unknown. This species did not appear in Kossmann & Räuber 1877.

Distribution: Western Indian Ocean: Red Sea.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

Entomacrodus Gill, 1859

Entomacrodus Gill [T.N.] 1859:168 [Proceedings of the Academy of Natural Sciences of Philadelphia v. 11] Masc. *Entomacrodus nigricans* Gill, 1859. Type by monotypy. •Valid as *Entomacrodus* Gill, 1859 -- (Springer 1967:8, Smith-Vaniz and Springer 1971:23, Springer 1972:10, Greenfield and Johnson 1981:67, Yoshino in Masuda et al. 1984:299, Springer 1986:746, Williams 1990:12, Bath 2001:5, Springer 2001:3542, Williams 2003:1770, Hoesse and Bray 2006:1550, Hastings and Springer 2009:71, Hastings 2009:101, Hastings and Springer 2009:8, Williams and Bogorodsky 2010:64, Lin and Hastings 2013:3, Stewart et al. 2015:1533, Fricke et al. 2018:310, Golani and Fricke 2018:139, Brown et al. 2019:165).

Blenniidae: Salariinae.

29) *Entomacrodus solus* Williams & Bogorodsky, 2010

Entomacrodus solus Williams [J. T.] & Bogorodsky [S. V.] 2010:64, Fig. 1 [Zootaxa No. 2475] Ras Mohammed, Sinai Peninsula, Gulf of Aqaba, Red Sea, depth 0-0.2 meters.

EN: -

Type: Holotype: BPBM 19791. Paratypes: USNM 216536 (18).

Distribution: Indian Ocean: Gulf of Aqaba, Egypt.

Environment: Demersal.

Depth range: 0-1 m.

IUCN: Endangered (EN).

30) *Entomacrodus striatus* (Valenciennes, 1836)

Entomacrodus striatus Valenciennes [A.] (ex Quoy & Gaimard) in Cuvier & Valenciennes 1836:309 [Histoire naturelle des poissons v. 11] Mauritius, Mascarenes, southwestern Indian Ocean.

EN: Reef margin blenny.

Type: Lectotype: MNHN A-1796. Paralectotypes: MNHN B-2525 (2). Type catalog: Bauchot 1967:32. Lectotype selected by Springer 1967:83.

Distribution: Indo-Pacific: East Africa to the Line and Ducie islands, north to the Ryukyu, Bonin, and Marcus islands (reported farther north to Wakayama Prefecture in Japan, Ref. 559), south to Lord Howe and Rapa islands.

Environment: Reef-associated.

Depth range: 0-3 m.

IUCN: Least Concern (LC).

Hirculops Smith, 1959

Hirculops Smith [J.L.B.] 1959:247 [Ichthyological Bulletin, Department of Ichthyology, Rhodes University No. 14] Masc. *Blennius cornifer* Rüppell 1830. Type by original designation (also monotypic). •Valid as *Hirculops* Smith 1959 -- (Springer 1986:747, Bath 2001:5, Hastings & Springer 2009:71, Smith-Vaniz & Allen 2012:61, Fricke et al. 2018:311, Golani & Fricke 2018:140).

Blenniidae: Salariinae.

31) *Hirculops cornifer* (Rüppell, 1830)

Hirculops cornifer Rüppell [W.P.E.S.] 1830:112 [Atlas zu der Reise im nördlichen Africa. Fische des Rothen Meeres] Jeddah, Saudi Arabia, Red Sea.

EN: Highbrow rock skipper.

Type: Holotype (unique): SMF 589.

Distribution: Western Indian Ocean: Red Sea south to Pondoland, South Africa. Likely at Seychelles. Also reported from Persian Gulf.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

***Exallias* Jordan & Evermann, 1905**

Exallias Jordan [D.S.] & Evermann [B.W.] 1905:503 [Bulletin of the U. S. Fish Commission v. 23 (pt 1) (1903)] Masc. *Salarias brevis* Kner 1868. Type by original designation (also monotypic). •Valid as *Exallias* Jordan and Evermann 1905 -- (Yoshino in Masuda et al. 1984:299, Springer 1986:746, Williams 1990:17, Bath 2001:5, Springer 2001:3541, Hoese and Bray 2006:1550, Hastings and Springer 2009:71, Golani and Fricke 2018:139). Blenniidae: Salariinae.

32) *Exallias brevis* (Kner, 1868)

Exallias brevis Kner [R.] 1868:29 [Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe v. 58 (nos 1-2)] Savai'i Island, Schiffer Island, Samoa.

EN: Leopard blenny.

Type: Holotype: NMW 75387. Possible types: ZMH H463 (1) [ex MGH 5062] Ponape. Type catalog: Ladiges 1958:171, Wilkens and Dohse 1993:409. Appeared in more detail in Kner 1868:334 [42 of separate], Pl. 6 (fig. 18).

Distribution: Indo-Pacific: Red Sea south to Sodwana Bay, South Africa and east to the Hawaiian, Marquesan, and Society islands, north to the Ryukyu and Bonin islands, south to New Caledonia and Rapa.

Environment: Reef-associated.

Depth range: 3-20 m.

IUCN: Least Concern (LC).

***Istiblennius* Whitley, 1943**

Istiblennius Whitley [G.P.] 1943:185 [Australian Zoologist v. 10 (pt 2)] Masc. *Salarias muelleri* Klunzinger 1879. Type by original designation (also monotypic). •Valid as *Istiblennius* Whitley 1943 -- (Smith-Vaniz and Springer 1971:24, Lindberg and Krasyukova 1975:29, Yoshino in Masuda et al. 1984:299, Springer 1986:747, Bath 1986:356, Williams 1990:11, Springer and Williams 1994:85, Bath 2001:5, Springer 2001:3543, Hoese and Bray 2006:1551, Hastings and Springer 2009:71, Lin and Hastings 2013:3, Kottelat 2013:382, Fricke et al. 2018:312, Fricke et al. 2018:391, Golani and Fricke 2018:140, Fricke et al. 2019:258).

Blenniidae: Salariinae.

33) *Istiblennius edentulus* (Forster & Schneider, 1801)

Istiblennius edentulus Forster [J.R.] & Schneider [J.G.] in Bloch & Schneider 1801:172 [M. E. Blochii, Systema Ichthyologiae] Tahiti, Society Islands [originally from Huahine, Society Islands].

EN: Rippled rockskipper.

Type: Neotype: USNM 292529. Name attributable to Forster & Schneider, description taken from Forster manuscript (reproduced in Lichtenstein 1844:231-232). Based on Forster painting, folio 182, at BMNH.

Neotype designated by Springer and Williams 1994:120. Freshwater record from Philippines (Leyet, pers. comm) cited by Kottelat (2013).

Distribution: Indo-Pacific: Red Sea and East Africa to the Line, Marquesan, and Tuamoto islands, north to southern Japan, south to Lord Howe and Rapa.

Environment: Reef-associated.

Depth range: 0-5 m.

IUCN: Least Concern (LC).

34) *Istiblennius pox* (Springer & Williams, 1994)

Istiblennius pox Springer [V.G.] & Williams [J.T.] 1994:96, Fig. 30 [Smithsonian Contributions to Zoology No. 565] Tidepools at Boleji Point, Karachi, Pakistan, Arabian Sea, northwestern Indian Ocean.

EN: Scarface rockskipper.

Type: Holotype: USNM 296480. Paratypes: BMNH 1932.2.18.35 to 37 (3), 1988.12.29.151-161, 163-165 (11); BPBM 21352 (1), 21560 (2), 30428 (16), 34466 (1); MNHN 1897-0317 (1), 1904-0320 to 0322 (3), 1960-0069 (1), 1977-0703 (1), 1977-0738 (1), 1987-0132 to 0138 (7); USNM 200206 (19, 1 c&s), 216127 (1), 217344 (13), 217352 (1), 287031 (2), 296477 (1), 296481 (3); ZMUC CN6-9 (4).

Distribution: Southern Red Sea; northwestern Indian Ocean: Somalia, Gulf of Aden, Gulf of Oman and Persian Gulf east to Pakistan.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

35) *Istiblennius spilotus* (Springer & Williams, 1994)

Istiblennius spilotus Springer [V.G.] & Williams [J.T.] 1994:155, Figs. 52-54 [Smithsonian Contributions to Zoology No. 565] Tidepools at Boleji Pt., Karachi, Pakistan, Arabian Sea, western Indian Ocean.

EN: Spotted rockskipper.

Type: Holotype: USNM 220913. Paratypes: BMNH 1888.12.29.150-153 (4), 1899.12.29.30-39 (10); BPBM 21353 (4); CAS 35597 (11); SAIAB [formerly RUSI] 13136 (1); SMNS 13136 (1); USNM 199617 (2), 217331 (4), 296450-51 (3, 5), 296463 (3), 296465 (1), 296470 (3), 296479 (4), 325131 (7). Type catalog: Fricke 1995:5, Fricke 2005:16.

Distribution: Western Indian Ocean: South Africa, East Africa and Persian Gulf to Seychelles, Comoros, Madagascar and Mascarenes.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

36) *Istiblennius flaviumbrinus* (Rüppell, 1830)

Istiblennius flaviumbrinus Rüppell [W.P.E.S.] 1830:113 [Atlas zu der Reise im nördlichen Africa. Fische des Rothen Meeres] Al Muwaylih, Tabuk Province, Saudi Arabia, Red Sea.

EN: -

Type: Lectotype: SMF 1893. Paralectotypes: SMF 8053-56 (4). Original genus should have been *Salarias*. Lectotype established by Dor 1984:230 if not selected earlier. Also as *flavoumbrinus* by authors.

Distribution: Western Indian Ocean: restricted to the Red Sea.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

37) *Istiblennius rivulatus* (Rüppell, 1830)

Istiblennius rivulatus Rüppell [W.P.E.S.] 1830:114 [Atlas zu der Reise im nördlichen Africa. Fische des Rothen Meeres] El-Tor, Sinai coast, Egypt, Gulf of Suez, Red Sea.

EN: -

Type: Lectotype: SMF 1843. Possible paralectotypes: RMNH 1808 [ex SMF] (1), SMF 6445 (1). Original genus should have been *Salarias*. Lectotype selected by Klausewitz 1964:137.

Distribution: Western Indian Ocean: Gulf of Aqaba and Gulf of Suez to Sudan.

Environment: Reef-associated.

Depth range: -

IUCN: Least Concern (LC).

38) *Istiblennius unicolor* (Rüppell, 1838)

Istiblennius unicolor Rüppell [W.P.E.S.] 1838:136 [Neue Wirbelthiere zu der Fauna von Abyssinien gehörig. Fische des Rothen Meeres] Massawa, Eritrea, Red Sea.

EN: Pallid rockskipper.

Type: Holotype (unique): SMF 1866.

Distribution: Western Indian Ocean: endemic to the Red Sea; from northernmost Gulf of Aqaba, south to Dahlak Archipelago in the southern Red Sea.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

39) *Istiblennius lineatus* (Valenciennes, 1836)

Istiblennius lineatus Valenciennes [A.] in Cuvier & Valenciennes 1836:314 [Histoire naturelle des poissons v. 11] Java, Indonesia.

EN: Lined rock skipper.

Type: Holotype: MNHN 0000-1396 (or RMNH 17272). Type catalog: Bauchot 1967:28-29.

Distribution: Indo-Pacific: Laccadive Islands and Maldives to Mangaréva, Gambier Islands. Western Central Pacific: Guam.

Environment: Reef-associated.

Depth range: 0-3 m.

IUCN: Least Concern (LC).

***Mimoblennius* Smith-Vaniz & Springer, 1971**

Mimoblennius Smith-Vaniz [W.F.] & Springer [V.G.] 1971:29 [Smithsonian Contributions to Zoology No. 73] Masc. *Blennius atrocinctus* Regan, 1909. Type by original designation. •Valid as *Mimoblennius* Smith-Vaniz and Springer, 1971 -- (Springer and Spreitzer 1978:12, Yoshino in Masuda et al. 1984:298, Springer 1986:749, Bath 2001:5, Springer 2001:3542, Hoese and Bray 2006:1555, Hastings and Springer 2009:71, Golani and Fricke 2018:141).

Blenniidae: Salariinae.

40) *Mimoblennius cirrosus* (Smith-Vaniz & Springer, 1971)

Mimoblennius cirrosus Smith-Vaniz [W. F.] & Springer [V. G.] 1971:31, figs. 13b, 39 [Smithsonian Contributions to Zoology No. 73] Off lighthouse at south end of Harat Island, 16°08'N, 39°26'30"E, Sheikh el Abu, Eritrea, Red Sea, depth 0-4 meters.

EN: Fringed blenny.

Type: Holotype: USNM 204491. Paratypes: HUJ 5383 [ex USNM 204565] (2), 7935 (4); USNM 204563-64

(1, 1), 204565 (orig. 2, now 0), 204566 (1, c&s), 204569 (6), 204645 (14). Type catalog: Springer et al. 1991:6, Golani 2006:33.

Distribution: Red Sea, northwestern Indian Ocean: Gulf of Aden and Socotra to Persian Gulf.

Environment: Reef-associated.

Depth range: 0-25 m.

IUCN: Least Concern (LC).

***Oman* Springer, 1985**

Oman Springer [V. G.] 1985:92 [Proceedings of the Biological Society of Washington v. 98 (no. 1) Fem. *Oman ypsilon* Springer, 1985. Type by original designation (also monotypic). •Valid as *Oman* Springer 1985 -- (Hastings and Springer 2009:70, Zogaris et al. 2015:77).

Blenniidae: Blenniinae.

41) *Oman ypsilon* (Springer, 1985)

Oman ypsilon Springer [V. G.] 1985:92, Fig. 1 [Proceedings of the Biological Society of Washington v. 98 (no. 1)] 100 meters off shore from Sur, 22°35'39"N, 59°32'E, Oman, Arabian Sea, depth 4 meters.

EN: Oman blenny.

Type: Holotype (unique): ROM 40208 (c&s).

Distribution: Northwestern Indian Ocean: Socotra, Oman, Persian Gulf.

Environment: Demersal.

Depth range: 2-6 m.

IUCN: Vulnerable (VU).

***Meiacanthus* Norman, 1944**

Meiacanthus Norman [J. R.] 1944:805 [Annals and Magazine of Natural History (Series 11) v. 10 (no. 72)] Masc. *Petroscirtes oualanensis* Günther, 1880. Type by original designation. Species originally as *oualanensis* both in the text and index, modified by Smith-Vaniz to *oualanensis*; *oualanensis* is the correct original spelling. Published 19 Jan. 1944. •Valid as *Meiacanthus* Norman, 1944 -- (Smith-Vaniz 1976:73, Yoshino in Masuda et al. 1984:296, Smith-Vaniz 1987:5, Allen 1991:148, Smith-Vaniz et al. 2001:30, Springer 2001:3539, Hoese and Bray 2006:1553 dated 1943 and with type as *oualensis*, Hastings and Springer, 2009:70, Smith-Vaniz and Allen 2011:39, Smith-Vaniz and Rose 2012:44, Lin and Hastings 2013:3, Kottelat 2013:383, Fricke et al. 2018:313, Golani and Fricke 2018:140, Fricke et al. 2019:259, Smith-Vaniz and Allen 2019:44).

Blenniidae: Blenniinae.

42) *Meiacanthus nigrolineatus* Smith-Vaniz, 1969

Meiacanthus nigrolineatus Smith-Vaniz [W.F.] 1969:351, fig. 1 [Proceedings of the Biological Society of Washington v. 82] Straits of Jubal, Egypt, 27°14'34"N, 33°53'55"E, Red Sea.

EN: Blackline fangblenny.

Type: Holotype: USNM 200301. Paratypes: USNM 200601 (4, 1 c&s), 201480 (3), 201485 (1). Type catalog: Springer et al. 1991:16.

Distribution: Western Indian Ocean: Red Sea and the Gulf of Aden, Socotra.

Environment: Reef-associated.

Depth range: -

IUCN: Least Concern (LC).

Omobranchus Valenciennes, 1836

Omobranchus Valenciennes [A.] (ex Ehrenberg) in Cuvier & Valenciennes 1836:287 [Histoire naturelle des poissons v. 11] Masc. *Blennechis fasciolatus* Valenciennes, 1836. Generic and specific names first published in synonymy of *Blennechis fasciolatus* Valenciennes in Cuvier & Valenciennes; made available back to Valenciennes by Swainson 1839:274 [type species designation not researched by us]. •Valid as *Omobranchus* Valenciennes, 1836 -- (Springer 1972:9, Lindberg and Krasyukova 1975:32, Springer and Gomon 1975, Yoshino in Masuda et al. 1984:296, Springer 1985:91, Springer 1986:750, Gomon et al. 1994:728, Springer 2001:3540, Williams 2003:1769, Hoese and Bray 2006:1555, Smith-Vaniz 2008:694, Hastings and Springer 2009:70, Lasso-Alcalá et al. 2011:571, Lin and Hastings 2013:3, Kottelat 2013:383, Stewart et al. 2015:1536, Gibbs et al. 2018:270, Fricke et al. 2018:313, Golani and Fricke 2018:141).

Blenniidae: Blenniinae.

43) *Omobranchus elongatus* (Peters, 1855)

Omobranchus elongatus Peters [W.(C.H.)] 1855:440 [Bericht über die zur Bekanntmachung geeigneten Verhandlungen der Königlichen Preussischen Akademie der Wissenschaften zu Berlin 1855] Mozambique, western Indian Ocean.

EN: Cloister blenny.

Type: Syntypes: ZMB 1940 (2). Also described as new in Peters 1855:249.

Distribution: Indo-West Pacific: East Africa, Seychelles, Madagascar and Mauritius (Mascarenes) east to Fiji, north to southern Japan, south to northern Australia; invasive in Hawaii and Guam.

Environment: Reef-associated.

Depth range: -

IUCN: Least Concern (LC).

44) *Omobranchus fasciolatus* (Valenciennes, 1836)

Omobranchus fasciolatus Valenciennes [A.] (ex Ehrenberg) in Cuvier & Valenciennes 1836:287 [Histoire naturelle des poissons v. 11] Naval Base at Massawa, Eritrea, Red Sea.

EN: Arab blenny.

Type: Neotype: USNM 204487. Type catalog: Bauchot 1967:8, Springer et al. 1991:8. Neotype designated by Springer & Gomon 1975:9, 37; original locality Eritrea.

Distribution: Red Sea; western Indian Ocean: East Africa, Persian Gulf, Madagascar and Réunion (western Mascarenes) east to Pakistan.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

45) *Omobranchus mekranensis* (Regan, 1905)

Omobranchus mekranensis Regan [C. T.] 1905:328 [Journal of the Bombay Natural History Society v. 16] Jask, Mekran Coast, Iran, Arabian Sea, northwestern Indian Ocean.

EN: Mekran blenny.

Type: Holotype (unique): BMNH 1904.5.25.94.

Distribution: Northwestern Indian Ocean: Persian Gulf and Gulf of Oman east to Pakistan and Laccadive Islands (India).

Environment: Demersal.

Depth range: -

IUCN: Vulnerable (VU).

46) *Omobranchus punctatus* (Valenciennes, 1836)

Omobranchus punctatus Valenciennes [A.] in Cuvier & Valenciennes 1836:286 [Histoire naturelle des poissons v. 11] Mumbai, India.

EN: Muzzled blenny.

Type: Holotype (unique): MNHN 0000-0716. Type catalog: Bauchot 1967:7.

Distribution: Red Sea; Indo-West Pacific: East Africa, South Africa, Madagascar and Persian Gulf east to Philippines and Fiji, north to central Japan, south to Exmouth Gulf (Western Australia) and southern Queensland (Australia); Mediterranean Sea (Red Sea immigrant); introduced in western Atlantic from Caribbean Sea to Brazil (especially near ports).

Environment: Reef-associated.

Depth range: -

IUCN: Least Concern (LC).

47) *Omobranchus steinitzi* Springer & Gomon, 1975

Omobranchus steinitzi Springer [V.G.] & Gomon [M.F.] 1975:70, Fig. 30 [Smithsonian Contributions to Zoology No. 177] Cundabilu Island, Dahlak Archipelago, Eritrea, Red Sea.

EN: -

Type: Holotype: USNM 209433. Paratypes: USNM 209434 (2), HUJ 10092 [ex E62/399a] (1). Type catalog: Springer et al. 1991:23, Golani 2006:33.

Distribution: Western Indian Ocean, southern Red Sea endemic: Eritrea.

Environment: Demersal.

Depth range: -

IUCN: Data deficient (DD).

***Parablennius* Miranda Ribeiro, 1915**

Parablennius Miranda Ribeiro [A.de] 1915: Blenniidae p. 3 [Arquivos do Museu Nacional de Rio de Janeiro v. 17] Masc. *Blennius pilicornis* Cuvier 1829. Type by monotypy. On p. 619 when continuously paginated.

•Synonym of *Blennius* Linnaeus, 1758 -- (Bath 1973:519). •Valid as *Parablennius* Miranda Ribeiro, 1915 -- (Springer 1986:751, Zander in Whitehead et al. 1986:1106, Bath and Hutchins 1986:168, Bath 1989, Bath 1989, Gomon et al. 1994:730, Bath 1996:91, Reshetnikov 1998:123, Bath 2001:5, Springer 2001:3542, Williams 2003:1770, Parin 2003:S22, Almada et al. 2005:289, Hoese and Bray 2006:1559, Almada et al. 2007:248, Bath 2008:77, Smith-Vaniz 2008:695, Hastings and Springer 2009:70, Hastings 2009:101, Javonillo and Harold 2010:14, Lipej and Dulčić 2010:59, Levy et al. 2013:3, Lin and Hastings 2013:3, Parin et al. 2014:468, Stewart et al. 2015:1537, Golani and Fricke 2018:141).

Blenniidae: Salariinae.

48) *Parablennius opercularis* (Murray, 1887)

Omobranchus punctatus Murray [J.A.] 1887:48 [Journal of the Bombay Natural History Society v. 2 (pt 1)] Manora rocks, Karachi, Pakistan.

EN: Cheekspot blenny.

Type: Syntypes: BMNH 1887.9.22.49-58 (11).

Distribution: Northwestern Indian Ocean: Persian Gulf and Oman east to Pakistan.

Environment: Demersal.

Depth range: 0-12 m.

IUCN: Least Concern (LC).

49) *Parablennius pilicornis* (Cuvier, 1829)

Parablennius pilicornis Cuvier [G.] 1829:237 [Le Règne Animal (Edition 2) v. 2] Brazil.

EN: Ringneck blenny.

Type: No types known. Type information: Bauchot 1967:17. Available from footnote as, "Bl. *pilicornis*, N., *punaru*, Margr., 165, la deuxième fig." Redescribed in Valenciennes in Cuvier and Valenciennes 1836:254 based on MNHN A-1867, A-1868, A-1869 from Rio de Janeiro, Brazil. Spelled *filicornis* by Günther 1861:216.

Distribution: Mediterranean Sea; eastern Atlantic: southern Bay of Biscay south to South Africa, including Madeira; western Indian Ocean: Natal to Knysna in South Africa, Iran; southwestern Atlantic: Brazil south to Argentina.

Environment: Demersal.

Depth range: 0-25 m.

IUCN: Least Concern (LC).

50) *Parablennius thysanius* (Jordan & Seale, 1907)

Parablennius thysanius Jordan [D.S.] & Seale [A.] 1907:47, Fig. 19 [Bulletin of the Bureau of Fisheries v. 26 (Doc. 606) (for 1906)] Cavite, Luzon Island, Philippines.

EN: Tasseled blenny.

Type: Syntypes: CAS-SU 9252 (1), USNM 53071 [not 53072] (1). Type catalog: Böhlke 1953:92, Springer et al. 1991:24 with remarks that specimens are considered as syntypes due to conflicting published and ledger type designations of SU 5292 [sic 9252].

Distribution: Indo-West Pacific: Persian Gulf, Oman and Sri Lanka east to Philippines, north to Thailand; introduced in Hawaiian Islands.

Environment: Demersal.

Depth range: 0-10 m.

IUCN: Least Concern (LC).

51) *Parablennius cyclops* (Rüppell, 1830)

Parablennius cyclops Rüppell [W.P.E.S.] 1830:113, Pl. 28 (fig. 3) [Atlas zu der Reise im nördlichen Africa. Fische des Rothen Meeres] El -Tor, Sinai coast, Egypt, Gulf of Suez, Red Sea.

EN: -

Type: Holotype (unique): SMF 1845. Genus misspelled *Salaris*.

Distribution: Red Sea, northwestern Indian Ocean: Gulf of Aden.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

52) *Parablennius cornutus* (Linnaeus, 1758)

Parablennius cornutus Linnaeus [C.] 1758:256 [Systema Naturae, Ed. X v. 1] India.

EN: -

Type: Syntypes: NRM 4711 (1).

Distribution: Southeastern Atlantic and western Indian Ocean: South Africa, northern Namibia to Sodwana Bay, Iran.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

***Pereulixia* Smith, 1959**

Pereulixia Smith [J.L.B.] 1959:238 [Ichthyological Bulletin, Department of Ichthyology, Rhodes University No. 14] Fem. *Salarias kosiensis* Regan, 1908. Type by original designation (also monotypic). •Valid

as *Pereulixia* Smith, 1959 -- (Springer 1986:752, Williams 1990:15, Bath 2001:5, Hastings and Springer 2009:71).

Blenniidae: Salariinae.

53) *Pereulixia kosiensis* (Regan, 1908)

Pereulixia kosiensis Regan [C.T.] 1908:254, Pl. 42 (fig. 3) [Annals of the Natal Museum v. 1 (pt 3)] Kosi Bay, Zululand, KwaZulu-Natal, South Africa, northwestern Indian Ocean.

EN: Kosi rockskipper.

Type: Holotype (unique): BMNH 1906.11.19.111.

Distribution: Western Indian Ocean: Pakistan south to Durban, South Africa.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

***Petroscirtes* Rüppell, 1830**

Petroscirtes Rüppell [W.P.E.S.] 1830:110 [Atlas zu der Reise im nördlichen Africa. Fische des Rothen Meeres] Masc. *Petroscirtes mitratus* Rüppell 1830. Type by monotypy. *Petroscertes* Swainson 1839:79, 80 and *Petroskirtes* Valenciennes in Cuvier and Valenciennes 1836:293, 294 are incorrect subsequent spellings. •Valid as *Petroscirtes* Rüppell 1830 -- (Smith-Vaniz 1976:23, Yoshino in Masuda et al. 1984:297, Springer 1986:753, Smith-Vaniz 1987:1, Springer 2001:3539, Smith-Vaniz 2005:34, Hoese and Bray 2006:1560, Hastings and Springer 2009:70 misspelled *Petroscribes*, Smith-Vaniz and Rose 2012:42, Lin and Hastings 2013:3, Fricke et al. 2018:314, Golani and Fricke 2018:141, Fricke et al. 2019:260).

Blenniidae: Blenniinae.

54) *Petroscirtes ancyloodon* (Rüppell, 1835)

Petroscirtes ancyloodon Rüppell [W.P.E.S.] 1835:1, Pl. 1 (fig. 1) [Neue Wirbelthiere zu der Fauna von Abyssinien gehörig. Fische des Rothen Meeres] Massawa, Eritrea, Red Sea.

EN: Arabian fangblenny.

Type: Holotype (unique): SMF 1818. Original genus should have been *Petroscirtes*.

Distribution: Northern Red Sea; northwestern Indian Ocean: Persian Gulf; Mediterranean Sea: Iskenderun Bay.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

55) *Petroscirtes mitratus* (Rüppell, 1830)

Petroscirtes mitratus Rüppell [W.P.E.S.] 1830:111, Pl. 28 (fig. 1) [Atlas zu der Reise im nördlichen Africa. Fische des Rothen Meeres] Jubal Island, Egypt, Red Sea.

EN: Floral blenny.

Type: Holotype (unique): SMF 1858 [or 1853].

Distribution: Red Sea; Indo-West Pacific: East Africa, Persian Gulf, Comoros, Madagascar and Mascarenes east to Samoa and Tonga, north to Kagoshima Prefecture (southern Japan), south to Rottnest Island (Western Australia), One Tree Island (Queensland, Australia), and New Caledonia.

Environment: Reef-associated.

Depth range: -

IUCN: Least Concern (LC).

56) *Petroscirtes variabilis* Cantor, 1849

Petroscirtes variabilis Cantor [T.E.] 1849:1182 [200] [Journal of the Asiatic Society of Bengal v. 18 (pt 2)] Sea

of Penang, Malaysia; Singapore.

EN: Variable sabretooth blenny.

Type: Syntypes: BMNH 1860.3.19.427-428 (2, skins). On p. 200 of separate. Neotype designated by Smith-Vaniz 1976:44 as SU 67355; syntypes subsequently found in 1977.

Distribution: Eastern Indian Ocean, western Pacific: Sri Lanka east to Philippines, Fiji, and Papua New Guinea, north to Taiwan and southern Korea, south to Australia, and the Yaeyama Islands, south to the southern Great Barrier Reef.

Environment: Reef-associated.

Depth range: 1-10 m.

IUCN: Least Concern (LC).

***Plagiotremus* Gill, 1865**

Plagiotremus Gill [T.N.] 1865:138 [Annals of the Lyceum of Natural History of New York v. 8 (art. 14)] Masc. *Plagiotremus spilistius* Gill 1865. Type by monotypy. •Valid as *Plagiotremus* Gill 1865 -- (Smith-Vaniz 1976:108, Yoshino in Masuda et al. 1984:297, Springer 1986:753, Smith-Vaniz 1987:46, Springer 2001:3539, Hoese and Bray 2006:1562, Hastings and Springer 2009:70, Hastings 2009:101, Hastings and Springer 2009:7, Smith-Vaniz and Rose 2012:44, Lin and Hastings 2013:3, Stewart et al. 2015:1538, Fricke et al. 2018:314, Golani and Fricke 2018:141, Fricke et al. 2019:260).

Blenniidae: Blenniinae.

57) *Plagiotremus rhinorhynchos* (Bleeker, 1852)

Plagiotremus rhinorhynchos Bleeker [P.] 1852:273 [Natuurkundig Tijdschrift voor Nederlandsch Indië v. 3 (no. 2)] Wahai, northern Ceram, Indonesia.

EN: Bluestriped fangblenny.

Type: Lectotype: RMNH 26470 [ex RMNH 4770]. Paralectotypes: RMNH 4770 (1 of several). Original genus should have been *Petroscirtes*. Original as *rhinorhynchos*, Dutch ij = y. Spelled *Petroscirtes rhinorhynchus* by Günther 1861:230. Misspelled *rhynorhynchos* by authors. Lectotype established by Dor 1984:224 if not designated earlier.

Distribution: Red Sea; Indo-West Pacific: South Africa, East Africa, Socotra, Seychelles, Madagascar and western Mascarenes east to Marshall Islands, Society Islands and Marquesas Islands, north to central Japan and Ogasawara Islands, south to Rottnest Island (Western Australia), Pambula Lake (New South Wales, Australia), Lord Howe Island, New Caledonia and Tonga.

Environment: Reef-associated.

Depth range: 0-40 m.

IUCN: Least Concern (LC).

58) *Plagiotremus townsendi* (Regan, 1905)

Plagiotremus townsendi Regan [C.T.] 1905:328, Pl. 3(C) (fig. 7) [Journal of the Bombay Natural History Society v. 16] Jask, Mekran Coast, Iran, Gulf of Oman, northwestern Indian Ocean.

EN: Townsend's fangblenny.

Type: Holotype (unique): BMNH 1899.5.8.100.

Distribution: Red Sea, northwestern Indian Ocean: Socotra, Gulf of Oman.

Environment: Reef-associated.

Depth range: 7-55m.

IUCN: Least Concern (LC).

59) *Plagiotremus tapeinosoma* (Bleeker, 1857)

Plagiotremus tapeinosoma Bleeker [P.] 1857:64 [Acta Societatis Regiae Scientiarum Indo-Neêlandicae v. 2 (art. 7)] Ambon Island, Molucca Islands, Indonesia.

EN: Piano fangblenny.

Type: Lectotype: RMNH 26469 [ex RMNH 4769]. Paralectotypes: RMNH 4769 (1 of 2). Original genus should have been *Petroscirtes*. Lectotype established by Dor 1984:224 if not designated earlier.

Distribution: Red Sea, Indo-West Pacific: South Africa, East Africa, Socotra, Seychelles, Madagascar and western Mascarenes east to Wake Atoll and Pitcairn Group, north to central Japan and Ogasawara Islands, south to Rottnest Island (Western Australia), New South Wales (Australia), northern New Zealand, Kermadec Islands and Rapa.

Environment: Reef-associated.

Depth range: 1-45 m.

IUCN: Least Concern (LC).

***Scartella* Jordan, 1886**

Scartella Jordan [D.S.] 1886:50 [Proceedings of the United States National Museum v. 9 (no. 551)] Fem. *Blennius microstomus* Poey 1860. Type by original designation (also monotypic). Type designated on p. 51.

•Synonym of *Blennius* Linnaeus 1758 -- (Bath 1973:519). •Valid as *Scartella* Jordan 1886 -- (Greenfield and Johnson 1981:72 [ref. 5580], Yoshino in Masuda et al. 1984:296, Zander in Whitehead et al. 1986:1112, Bath 1996:92, Castro-Aguirre et al. 1999:405, Bath 2001:5, Williams 2003:1770, Rangel et al. 2004:89, Almada et al. 2005:289, Rangel and Mendes 2009:51, Hastings and Springer 2009:70, Hastings 2009:101, Levy et al. 2012:3, Araujo et al. 2019:[2] 55, Brown et al. 2019:165, Vecchioni et al. 2022:7

Blenniidae: Salariinae.

60) *Scartella emarginata* (Günther, 1861)

Scartella emarginata Günther [A.] 1861:224 [Catalogue of the fishes in the British Museum v. 3] No locality.

EN: Maned blenny.

Type: Syntypes: (5) BMNH 1846.9.11.82 (1), 1846.9.11.85 (1). Type is Pakistan according to Randall 1995:323.

Distribution: Indo-West Pacific: South Africa east to Indonesia, north to Sea of Japan (Yamaguchi Prefecture, Japan) and Pacific coast of Kanagawa Prefecture (Japan).

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

***Salarias* Cuvier, 1816**

Salarias Cuvier [G.] 1816:251 [Le Règne Animal v. 2] Masc. *Salarias quadripennis* Cuvier 1816. Type by subsequent designation. Type designated by Jordan 1917:101 [re. Not *Salaria* Forsskål 1775. *Salaris* is a misspelling. •Valid as *Salarias* Cuvier 1816 -- (Yoshino in Masuda et al. 1984:298, Springer 1986:754, Bath and Randall 1991, Bath 2001:6, Springer 2001:3542, Hoese and Bray 2006:1563, Hastings and Springer 2009:71, Lin and Hastings 2013:3, Attaran-Farimani et al. 2016:171, Fricke et al. 2018:315, Golani and Fricke 2018:142, Fricke et al. 2019:262).

Blenniidae: Salariinae.

61) *Salarias fasciatus* (Bloch, 1786)

Salarias fasciatus Bloch [M.E.] 1786:110, Pl. 162 (fig. 1) [Naturgeschichte der ausländischen Fische v. 2] Pacific.

EN: Jewelled blenny.

Type: Syntypes: ZMB 1942 (2). Type catalog: Paepke 1999:52. On p. 91 of Bloch's Ichthyologie, v. 5.

Distribution: Red Sea; Indo-West Pacific: East Africa, Persian Gulf, Seychelles, Madagascar and Mascarenes east to Marshall Islands and Samoa, north to Ryukyu Islands (Japan), south to Western Australia, New Caledonia and Tonga.

Environment: Reef-associated.

Depth range: 0-8 m.

IUCN: Least Concern (LC).

***Salaria* Forsskål, 1775**

Salaria Forsskål [P.S.] in Niebuhr 1775:x, 22 [Descriptiones animalium (Forsskål)] Fem. *Blennius* *salaria* Bloch & Schneider 1801. Type by subsequent designation. Appeared first without included species. Earliest addition of species not researched (see remarks on type in Krupp & Schneider 1989:405). Jordan and Evermann 1898:2377 list *basiliscus* as type. Fricke 2008:52 suggests that the author of the genus is Bath [ex Forsskål] 1977. •Synonym of *Blennius* Linnaeus 1758 -- (Bath 1973:519). •Valid as *Salaria* Forsskål 1775 -- (Bath 1977:208, Bath 1986:356, Krupp and Schneider 1989:405, Bath 1996:92, Bath 2001:5, Bath 2003:95, Kottelat 2004:121, Almada et al. 2005:289, Kottelat and Freyhof 2007:545, Fricke 2008:52, Hastings and Springer 2009:70, Lipej and Dulčić 2010:60, Doadrio et al. 2012:151, Levy et al. 2013:3, Parin et al. 2014:470, Wagner et al. 2021: [4]).

Blenniidae: Salariinae.

62) *Salaria pavo* (Risso, 1810)

Salaria pavo Risso [A.] 1810:133 [Ichthyologie de Nice] Nice, France, northwestern Mediterranean Sea.

EN: Peacock blenny.

Type: No types known. Type catalog: Bauchot 1967:16.

Distribution: Mediterranean Sea; Sea of Marmara; Black Sea; the Suez Canal; eastern Atlantic: Bay of Biscay south to Morocco, including Madeira.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

***Xiphasia* Swainson, 1839**

Xiphasia Swainson [W.] 1839:179, 259 [The natural history and classification v. 2] Fem. *Xiphasia* *setifer* Swainson 1839. Type by monotypy. "Z. setifer" in original description (p. 259) in error for *X. setifer*.

•Valid as *Xiphasia* Swainson 1839 -- (Smith-Vaniz 1976:65, Yoshino in Masuda et al. 1984:297, Springer 1986:754, Smith-Vaniz 1987:4, Springer 2001:3539, Hoese & Bray 2006:1566, Hastings and Springer 2009:70, Smith-Vaniz and Rose 2012:44, Lin and Hastings 2013:3, Motomura et al. 2017:192, Fricke et al. 2018:315, Golani and Fricke 2018:142).

Blenniidae: Blenniinae.

63) *Xiphasia setifer* (Swainson, 1839)

Xiphasia setifer Swainson [W.] 1839:259 [The natural history and classification v. 2] Vizagapatam, India.

EN: Hairtail blenny.

Type: No types known. Based on "Tonkah talawaree" Russell 1803:28, Pl. 39.

Distribution: Red Sea; Indo-West Pacific: East Africa, South Africa, Persian Gulf, Madagascar and western Mascarenes east to Vanuatu, north to Korea and central Japan, south to Exmouth Gulf (Western Australia), New South Wales (Australia), Lord Howe Island and New Caledonia.

Environment: Demersal.

Depth range: 2-1190 m.

IUCN: Least Concern (LC).

64) *Xiphasia matsubarai* Okada & Suzuki, 1952

Xiphasia matsubarai Okada [Y.] & Suzuki [K.] 1952:75, Fig. [Report of Faculty of Fisheries, Prefectural University of Mie v. 1 (no. 2)] Off Owashi, Japan, Sea of Japan.

EN: Japanese snake blenny.

Type: Holotype (unique): FRLM 4052.

Distribution: Indo-West Pacific: East Africa east to Mariana and Ellice islands, north to southern Sea of Japan (southern Japan), south to Solomon Islands.

Environment: Benthopelagic.

Depth range: 0-4960 m.

IUCN: Least Concern (LC).

Family: Tripterygiidae (3 genera and 17 species)

(Figs. 7-9).

Enneapterygius Rüppell, 1835

Enneapterygius Rüppell [W.P.E.S.] 1835:2 [Neue Wirbelthiere zu der Fauna von Abyssinien gehörig. Fische des Rothen Meeres] Masc. *Enneapterygius pusillus* Rüppell 1835. Type by monotypy. •Valid as *Enneapterygius* Rüppell 1835 -- (Holleman 1982:120, Yoshino in Masuda et al. 1984:294, Holleman 1986:756, Fricke 1987:336, Fricke 1994:173, Shen 1994:6, Fricke 1994:1, Randall 1995:27, Fricke 1997:142, 565, Williams and Fricke 2001:3533, Holleman 2005:3, Motomura et al. 2005:5, Hoese 2006:1519, Chiang and Chen 2008:183, Fricke 2009:38, Endo et al. 2010:9, Meguro and Motomura 2010:1, Motomura et al. 2010:185-187, Holleman and Bogorodsky 2012:36, 39, Lin and Hastings 2013:3, Motomura et al. 2015:1, Stewart and Clements 2015:1502, Fricke and Erdmann 2017:1, Tashiro et al. 2018:[1], Fricke et al. 2018:303, Golani and Fricke 2018:142, Fricke et al. 2019:254).

Tripterygiidae: Tripterygiinae.

65) *Enneapterygius hollemani* (Randall, 1995)

Enneapterygius hollemani Randall [J.E.] 1995:27, Fig. 1 [Revue française d'Aquariologie Herpétologie v. 22 (no. 1/2)] Northern side of Ra's al Madrakah, central coast of Oman, Arabian Sea, depth 0-0.5 meters.

EN: Holleman's triplefin.

Type: Holotype: BPBM 36078. Paratypes: BPBM 36021 (1), USNM 334523 (1). Type catalog: Springer and Orrell 1996:27.

Distribution: Western Indian Ocean: known only from the central and southern coast of Oman.

Environment: Demersal.

Depth range: 0-2 m.

IUCN: Least Concern (LC).

66) *Enneapterygius melanospilus* (Randall, 1995)

Enneapterygius melanospilus Randall [J.E.] 1995:29, Fig. 2 [Revue française d'Aquariologie Herpétologie v. 22 (no. 1/2)] East side of Masirah Island, off central coast of Oman, Arabian Sea, depth 3 meters.

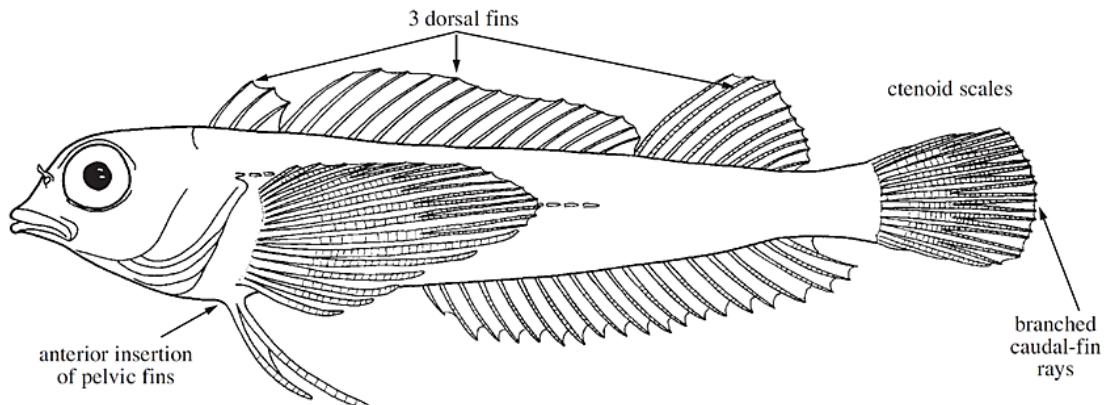


Figure 7. General morphology of a triplefin blenny, Williams and Fricke (2001).

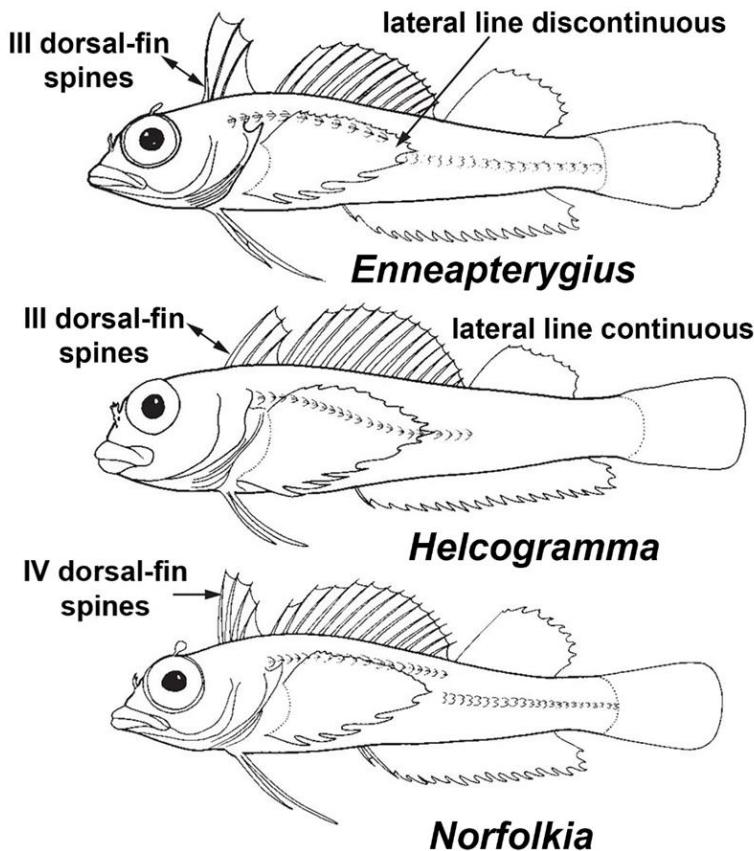


Figure 8. Schematic figures of three genera of the triplefin blennies in the northwestern Indian Ocean, Williams and Fricke (2001).

EN: -

Type: Holotype: BPBM 36181. Paratypes: BPBM 35980 (1), USNM 334524 (1). Type catalog: Springer & Orrell 1996:28.

Distribution: Western Indian Ocean: Arabian Sea, Oman.

Environment: Demersal.

Depth range: 3-9 m.

IUCN: Least Concern (LC).

67) *Enneapterygius ventermaculus* (Holleman, 1982)**(Fig. 9)**

Enneapterygius ventermaculus Holleman [W.] 1982:123, Fig. 7 [Annals of the Cape Provincial Museums (Natural History) v. 14 (pt 4)] Rock pool about 10 kilometers south of Sodwana Bay, 27°37'30"S, 33°40'50"E, Zululand, KwaZulu-Natal, South Africa, southwestern Indian Ocean.

EN: Blotched triplefin.

Type: Holotype: SAIAB [formerly RUSI] 7943. Paratypes: BMNH 1954.4.26.191-196 (6), 1954.4.26.197-208 (12), 1954.4.26.209-214 (6); LACM 38309-5 (6), 38310-10 (43), 38320-9 (2); SAIAB [formerly RUSI] 7944-47 (4, 1, 1, 1).

Distribution: Southern Red Sea; western Indian Ocean: East Africa, Transkei (South Africa) and southern Persian Gulf east to Pakistan.

Environment: Demersal.**Depth range:** 0-12 m.**IUCN:** Least Concern (LC).**68) *Enneapterygius abeli* (Klausewitz, 1960)**

Enneapterygius abeli Klausewitz [W.] 1960:11, Figs. 1-2 [Senckenbergiana Biologica v. 41 (nos 1/2)] Hurghada, Red Sea Governorate, Egypt, Red Sea.

EN: Yellow triplefin.

Type: Holotype: SMF 4780. Paratypes: SMF 4781-82 (1, 1).

Distribution: Red Sea, western Indian Ocean: East Africa, South Africa, Socotra, Seychelles, Comoros, Madagascar and Mauritius (Mascarenes) east to Chagos Archipelago.

Environment: Reef-associated.**Depth range:** 1-14 m.**IUCN:** Least Concern (LC).**69) *Enneapterygius altipinnis* Clark, 1980**

Enneapterygius altipinnis Clark [E.] 1980:99, Figs. 3b, 6c, 11 [Israel Journal of Zoology v. 28 (nos 3-4) [for 1979]] North of Ras Burka, Egypt, Gulf of Aqaba, Red Sea.

EN: -

Type: Holotype: USNM 205807. Paratypes: HUJ 5481-82 (9, 10), 5501 (1); TAU [= SMNHTAU] 4076b (2), 4398 (5); USNM 205808-09 (33, 2), 212247-48 (2, 1). Type catalog: Springer and Orrell 1996:24. •Synonym of *Enneapterygius tutuilae* Jordan & Seale 1906 -- (Fricke 1994:285, Fricke 1997:337, 572, Golani 2006:30, Hoese 2006:1523, Fricke 2009:42).

Distribution: Red Sea, western Indian Ocean: East Africa to Seychelles, Comoros and Madagascar.

Environment: Reef-associated.**Depth range:** 2-3 m.**IUCN:** Least Concern (LC).**70) *Enneapterygius clarkae* Holleman, 1982**

Enneapterygius clarkae Holleman [W.] 1982:121, Fig. 6 [Annals of the Cape Provincial Museums (Natural History) v. 14 (pt 4)] Off Barreira Vermelha, Inhaca Island, Mozambique, southwestern Indian Ocean.

EN: Barred triplefin.

Type: Holotype: SAIAB [formerly RUSI] 14175. Paratypes: LACM 31617-27 (1); SAIAB [formerly RUSI] 7938-39 (1, 2), 9842 (2), 14174 (4), 14176 (1), 14177 (2 c&s) not on shelf, 14629 (4); USNM 231378-82 (1, 1, 1, 1, 3). Type catalog: Springer & Orrell 1996:26. •Synonym of *Enneapterygius destai* Clark 1980 -- (Fricke 1997:566).



Figure 9. Live specimens of *Enneapterygius ventermaculatus* from the Persian Gulf. Upper, male; lower, female, Esmaeili et al. (2022).

Distribution: Red Sea, western Indian Ocean: East and South Africa east to Madagascar and Cargados Carajos.

Environment: Demersal.

Depth range: -

IUCN: Least Concern (LC).

71) *Enneapterygius destai* Clark, 1980

Enneapterygius destai Clark [E.] 1980:102, Figs. 4b, 13 [Israel Journal of Zoology v. 28 (nos 3-4) [for 1979]] Northern end of Delemone Island, just east of Ras Coral, Ethiopia, Red Sea.

EN: -

Type: Holotype: USNM 214629. Paratypes: HUJ 5488-90 (1, 1, 3), 5498 (2), 5502 (1), 9210 (20 or 27), 9211 (3); SMF 9494 (1); TAU [=SMNHTAU] N.S. 4397 (1); USNM 205798-99 (14, 2). Type catalog: Springer and Orrell 1996:26, Golani 2006:31. Spelled *destae* in caption to Fig. 13; named for a man so *destai* is correctly formed.

Distribution: Western Indian Ocean: Red Sea endemic.

Environment: Demersal.

Depth range: 2-12 m.

IUCN: Least Concern (LC).

72) *Enneapterygius obscurus* Clark, 1980

Enneapterygius obscurus Clark [E.] 1980:105, Figs. 4d, 15 [Israel Journal of Zoology v. 28 (nos 3-4) [for 1979]] El Himera, Gulf of Aqaba, Sinai, Egypt, Red Sea. Holotype: USNM 205818.

EN: -

Type: Paratypes: HUJ 5483 (2), 5486 (8); USNM 205819-20 (2, 9). Type catalog: Springer & Orrell 1996:28, Golani 2006:31.

Distribution: Red Sea, western Indian Ocean: East Africa, Maldives.

Environment: Demersal.

Depth range: 2-22 m.

IUCN: Least Concern (LC).

73) *Enneapterygius pallidus* Clark, 1980

Enneapterygius pallidus Clark [E.] 1980:107, Figs. 4e, 16 [Israel Journal of Zoology v. 28 (nos 3-4) [for 1979]]

El Himeira, Gulf of Aqaba, Sinai, Egypt, Red Sea, depth 21-17 meters.

EN: -

Type: Holotype: USNM 212156. Paratypes: USNM 205829 (1), 212246 (2). Type catalog: Springer & Orrell 1996:29. •Synonym of *Enneapterygius pusillus* Rüppell 1835 -- (Fricke 1997:570, Fricke 2009:41).

Distribution: Red Sea, northwestern Indian Ocean: Socotra.

Environment: Reef-associated.

Depth range: 0-5 m.

IUCN: Least Concern (LC).

74) *Enneapterygius pusillus* Rüppell, 1835

Enneapterygius pusillus Rüppell [W.P.E.S.] 1835:2, Pl. 1 (fig 2) [Neue Wirbelthiere zu der Fauna von Abyssinien gehörig. Fische des Rothen Meeres] Massawa, Eritrea, Red Sea.

EN: Highcrest triplefin.

Type: Lectotype: SMF 492. Paralectotypes: SMF 492 (1), 4778-79 (2). Lectotype perhaps first established by Fricke 1997:570; Dor's 1984 use of holotype invalid.

Distribution: Red Sea, western Indian Ocean: East Africa, South Africa, Persian Gulf, Socotra and Gulf of Oman east to southern India.

Environment: Demersal.

Depth range: 3-20 m.

IUCN: Least Concern (LC).

75) *Enneapterygius qirmiz* Holleman & Bogorodsky, 2012

Enneapterygius qirmiz Holleman [W.] & Bogorodsky [S. V.] 2012:509, Figs. 2H, 6-7 [Zootaxa No. 3152]

Uqban, Kamaran Island, Red Sea, Yemen, 15°28.893'N, 42°23.141'E.

EN: Crimson triplefin.

Type: Holotype: SMF 33093 [ex SMF 29594]. Paratypes: BPBM 35721 (1); NHCY-P1 (1); SAIAB 88720 (2); SMF 29357 (2), 29487 (1), 29492 (2), 29594 (1), 33588 (1), 33589 (1), 33590 (1), 33591 (1), 33592 (1); USNM 205805 (6). Plus, non-type material.

Distribution: Western Indian Ocean: Red Sea endemic.

Environment: Demersal.

Depth range: 0-9 m.

IUCN: Least Concern (LC).

***Helcogramma* McCulloch & Waite, 1918**

Helcogramma McCulloch [A.R.] & Waite [E.R.] 1918:51 [Records of the South Australian Museum (Adelaide) v. 1 (no. 1)] Fem. *Helcogramma decurrens* McCulloch & Waite 1918. Type by original designation. Williams and Howe 2003:152 correctly treat the genus as feminine, based on the Greek noun *gramme*, meaning line and Latinized to *gramma*. The diagnosis refers to the special condition of the lateral line. •Valid as *Helcogramma* McCulloch & Waite 1918 -- (Yoshino in Masuda et al. 1984:293, Hansen 1986, Holleman 1986:757, Hardy 1987, Williams and McCormick 1990, Randall and Clark 1993:27, Fricke 1994:398, Gomon

et al. 1994:734, Shen 1994:18, Randall 1995:32, Fricke 1997:370, 577, Williams and Fricke 2001:3533, Williams and Howe 2003:151, Holleman 2006:90, Holleman 2006:503. Hoese 2006:1524, Motomura et al. 2006:106, Holleman 2007:53, Gomon 2008:687, Fricke 2009:47, Holleman and Bogorodsky 2012:54, Chiang and Chen 2012:57, Lin and Hastings 2013:3, Tashiro and Motomura 2014:97, Fricke and Erdmann 2017:34, Fricke et al. 2018:305, Golani and Fricke 2018:143, Tashiro and Motomura 2018: [1], Brown et al. 2019:164, Fricke et al. 2019:254).

Tripterygiidae: Tripterygiinae.

76) *Helcogramma obtusirostre* (Klunzinger, 1871)

Helcogramma obtusirostre Klunzinger [C.B.] 1871:498 [Verhandlungen der K.-K. zoologisch-botanischen Gesellschaft in Wien v. 21] Al-Qusair, Red Sea Governorate, Egypt, Red Sea.

EN: Hotlips triplefin.

Type: Lectotype: ZMB 31298. Paralectotypes: ZMB 8020 (2). Lectotype selected by Hansen 1986:343. The correct species spelling is *obtusirostris* as the genus *Helcogramma* is feminine. Original genus should have been *Tripterygion*.

Distribution: Indo-West Pacific: Red Sea south to Transkei, South Africa and east to the western Pacific. Southeast Atlantic: Ascension Island and St. Helena.

Environment: Demersal.

Depth range: 0-30 m.

IUCN: Least Concern (LC).

77) *Helcogramma steinitzi* (Clark, 1980)

Helcogramma steinitzi Clark [E.] 1980:88, Figs. 3d, 5a, 6a, 8; Pls. 2-5 [Israel Journal of Zoology v. 28 (nos 3-4) [for 1979]] Bay between Marsa Mokrakh and El Himeira, Sinai, Egypt, northwestern coast of Gulf of Aqaba, Red Sea.

EN: Red triplefin.

Type: Holotype: USNM 205787. Paratypes: HUJ 4656 (3), 5351-52 (12, 1), 9209 (2); TAU [= SMNHTAU] N.S.2623a (2), 4076a (5), 4541 (1), 12158b (1), 12161 (1); USNM 205788-90 (2, now 3, 4), 205791 (12, 4 c&s), 205792 (6), 205824 (7), 205826 (1), 205828 (1), 205830 (1), 205832-33 (1, 17). Type catalog: Springer and Orrell 1996:31, Golani 2006:31.

Distribution: Northwestern Indian Ocean: Socotra, Arabian Peninsula, northern Red Sea to the Persian Gulf, Gulf of Oman.

Environment: Reef-associated.

Depth range: 0-10 m.

IUCN: Least Concern (LC).

78) *Helcogramma obtusirostris* (Klunzinger, 1871)

Helcogramma obtusirostris Klunzinger [C.B.] 1871:498 [Verhandlungen der K.-K. zoologisch-botanischen Gesellschaft in Wien v. 21] Al-Qusair, Red Sea Governorate, Egypt, Red Sea. Lectotype: ZMB 31298.

EN: Hotlips triplefin.

Type: Paralectotypes: ZMB 8020 (2). Lectotype selected by Hansen 1986:343. The correct species spelling is *obtusirostris* as the genus *Helcogramma* is feminine. Original genus should have been *Tripterygion*.

Distribution: Red Sea, northwestern Indian Ocean: Oman.

Environment: Demersal.

Depth range: 0-30 m.

IUCN: Least Concern (LC).

79) *Helcogramma ellioti* (Herre, 1944)

Helcogramma ellioti Herre [A. W. C. T.] 1944:49 [Proceedings of the Biological Society of Washington v. 57] Maharanepeta Beach, Vizagapatam, India.

EN: -

Type: Lectotype: CAS-SU 38840 (male). Paralectotypes: CAS-SU 38840 (1, female), 38841-45 (1, 1, 8, 28, 114); USNM 123656 [ex SU] (4). Herre considered a male and a female as his types, the rest as paratypes; Böhlke 1953:99 treated the male as holotype and the female as allo-paratype; the male was designated as lectotype by Springer and Orrell 1996:26.

Distribution: Indian Ocean: Gulf of Oman (Iran) east to southern India.

Environment: Demersal.

Depth range: 2-10 m.

IUCN: Least Concern (LC).

80) *Helcogramma fuscopinna* Holleman, 1982

Helcogramma fuscopinna Holleman [W.] 1982:115, Fig. 4 [Annals of the Cape Provincial Museums (Natural History) v. 14 (pt 4)] Reef offshore of Sodwana Bay, 27°31'S, 32°41'E, Zululand, KwaZulu-Natal, South Africa, western Indian Ocean.

EN: Reef-associated.

Type: Holotype: SAIAB [formerly RUSI] 954. Paratypes: BMNH 1978.5.30.1-2 (2); BPBM 21164 (5); ROM 38782-38785 (8, 4 lots); SAIAB [formerly RUSI] 490 (28), 489 (2), 955-956 (2, 1); USNM 227738-47 (4, 1, 33, 33, 3, 3, 2, 9, 19, 91); WAM P26507-016 (2). Type catalog: Springer and Orrell 1996:26, Ho and Shao 2011:53.

Distribution: East and South Africa, Seychelles, Madagascar and Mascarenes east to Maldives and Chagos Archipelago.

Environment: Blackfin triplefin.

Depth range: 0-10 m.

IUCN: Least Concern (LC).

***Norfolkia* Fowler, 1953**

Norfolkia Fowler [H.W.] 1953:262 [Transactions of the Royal Society of New Zealand v. 81 (pt 2)] Fem. *Norfolkia lairdi* Fowler 1953. Type by original designation (also monotypic). •Valid as *Norfolkia* Fowler 1953 -- (Hardy 1984:176, Holleman 1986:758, Kuiter 1985:91, Fricke 1991:339, Holleman 1991, Fricke 1994:461, Shen 1994:23, Gomon et al. 1994:737, Fricke 1997:501, 582, Williams and Fricke 2001:3533, Hoese 2006:1525, Gomon 2008:690, Fricke 2009:34, Holleman and Bogorodsky 2012:57, Fricke et al. 2018:306, Golani and Fricke 2018:144).

Tripterygiidae: Tripterygiinae.

81) *Norfolkia brachylepis* (Schultz, 1960)

Norfolkia brachylepis Schultz [L.P.] in Schultz et al. 1960:291, Fig. 113 [Bulletin of the United States National Museum No. 202, v. 2] Coral heads in eastern end of Lagoon, Bikini Atoll, Marshall Islands, western Pacific, depth 20-25 feet.

EN: Redfin Triplefin.

Type: Holotype (unique): USNM 142253. Type catalog: Springer & Orrell 1996:25.

Distribution: Red Sea; Indo-West Pacific: East Africa, South Africa, Comoros and Madagascar east to Marshall Islands, Samoa and Tonga, north to Kagoshima prefecture (southern Japan) and Ogasawara Islands, south to New Caledonia.

Environment: Reef-associated.

Depth range: 2-7 m.

IUCN: Least Concern (LC).

Discussion

The present checklist includes 81 species belonging to the families Blenniidae (25 genera and 64 species) and Tripterygiidae (3 genera and 17 species) found in the Persian Gulf, the Sea of Oman, the Arabian Sea and the Red Sea. During the last 12 years only three new species have been described from the region: i) Lonely blenny *Entomacrodus solus* Williams & Bogorodsky, 2010, an endemic fish of the Red Sea which was described on the basis of 35 specimens collected by J.E. Randall on a shallow rocky shore at the end of a mangrove channel at Ras Mohammed, Red Sea ii) Slender sabertooth blenny *Adelotremus leptus* Smith-Vaniz & Rose, 2012, a Red Sea endemic fish that was described as a new genus and species of blenniid fish, based on a single gravid female, 35.4 mm standard length, collected from a polychaete tube in 15 m depth in the Red Sea near Sharm el Sheikh, Egypt, and iii) Crimson triplefin *Enneapterygius qirmiz* Holleman & Bogorodsky, 2012, endemic fish described from Uqban, Kamaran Island, Red Sea, Yemen.

Based on Bogorodsky and Randall (2019), 11 species of blennies (*Adelotremus leptus*, *Enchelyurus petersi*, *Omobranchus steinitzi*, *Alloblennius jugularis*, *Alticus magnusi*, *Ecsenius aroni*, *Entomacrodus solus*, *Istiblennius flaviumbrinus*, *I. rivulatus*, *Istiblennius unicolor* and *Parablennius cyclops*; and five species of triplefin fishes (*Enneapterygius altipinnis*, *E. destai*, *E. obscurus*, *E. pallidus* and *E. qirmiz*) are endemic elements to the Red Sea.

There has been increasing trend in the number of recorded species of blenniiforms from the region. Blevgad and Loppenthin (1944) recorded four species belong to three genera of Blenniidae from the Iranian waters of the Persian Gulf. Smith (1959) reported 67 species belonging to 30 genera of this family from the western Indian Ocean. Randall (1995) reported 33 species of blennies from intertidal and subtidal zones of southern parts of the Persian Gulf and Oman Sea and 20 species were reported by Carpenter et al. (1997) from Kuwait, eastern part of Saudi Arabia, Bahrain, Qatar and the United Emirates. Manilo and Bogorodsky (2003) mentioned 24 genera and 54 species of the family Blenniidae and 12 species of Tripterygiidae in the list of coastal fishes of the Arabian Sea. Bishop (2003) listed eight species in six genera in a checklist of Kuwait Bay (the Persian Gulf). Ghanbarifardi and Malek (2009), Attaran-Farimani et al. (2016), Mehraban and Esmaeili (2017, 2018) and Eagderi et al. (2019) listed and recorded new tooth-comb blennies in the Persian Gulf and Oman Sea. Recently, Estekani et al. (2019) recognized 15 species of blennies in the coastal waters of Oman Sea which three species, *Parablennius thysanius*, *Entomacrodus striatus* and *Petroscrites mitratus* were mentioned for the first time. listed 23 species of blennies from the Persian Gulf. Using morpho-molecular approaches, Mehraban et al. (2020, 2021) provided comprehensive data on the genetic diversification, population structure and geophylogeny of the scarface rockskipper, *Istiblennius pox*, and also the DNA barcoding, molecular systematics and diversity of combtooth blennies from the Persian Gulf and Oman Sea for the first time.

Sharifiniya et al. (2022) provided updated checklist of combtooth blennies in the subtidal and intertidal zones of the Iranian coasts of the Persian Gulf and Oman Sea and Esmaeili et al. (2022) documented presence of the triplefin fish *Enneapterygius ventermaculatus*. New methodology and technology, extensive field works, molecular approaches (e.g., DNA barcoding), number of involved researchers and international collaborations are the main factors in naming and describing new fish species, and documentation of new records in the region.

Species diversity of the families Blenniidae and Tripterygiidae in the Persian Gulf is lower than the three other main water bodies of the region (Oman, Arabian and Red Seas). It can be due to substantial variations in the environmental features and oceanographic characteristics of the Persian Gulf including sea surface

temperature ranges (12–36°C), high salinity (>45), low depth (90–100 m), closed geographic position and its geological history during the glaciation in Pleistocene (Reynolds 1993; Lokier et al. 2015; Teimori et al. 2018). Moreover, it seems that the Hormuz straits has acted as an ecological barrier to gene flow, between the Persian Gulf and Oman Sea (Teimori et al. 2018). These features are distinct in the Oman, Arabian and Red Seas (Medio et al. 2000, Kayanne et al. 2006; Burt et al. 2011; Golani and Fricke 2018).

Some of the less-known species, or species from less explored areas, deserve more attention and approval of a similar fine-resolution taxonomy approach, ideally accompanied by comprehensive integrative molecular studies, to more fully understand the overall diversity, the speciation events, and the evolutionary pathways involved in blenniform systematics and phylogeny. Ongoing research and intensive collections are likely to reveal additional species in the Northwest Indian Ocean.

Acknowledgments

We would like to thank F. Zarei, H.R. Mehraban and V. Sholeh for carrying out field works in Iran, and Shiraz University and Sultan Qaboos University for financial support.

Literature cited

- Al-Jufaili S.M., Hermosa G., Al-Shuaily S.S., Al Mujaini A. 2010. Oman fish biodiversity. *Marine Sciences* 21(1): 3-51.
- Allen G.R., Erdmann M.V., Liu S.Y.V. 2019. *Ecsenius springeri*, a new microendemic species of blenny (Teleostei: Blennidae) from the Fakfak Peninsula, West Papua, Indonesia. *Journal of the Ocean Science Foundation* 32: 68-78.
- Almada F., Almada V.C., Guillemaud T., Wirtz P. 2005. Phylogenetic relationships of the north-eastern Atlantic and Mediterranean blenniids. *Biological Journal of the Linnean Society* 86(3): 283-295.
- Almada V.C., Domingues V.S., Monteiro N.M., Almada F., Santos R.S. 2007. Molecular data confirm the validity of the Portuguese blenny (*Parablennius ruber*, Valenciennes, 1836) and its presence in Western Europe. *Journal of Fish Biology* 70: 248-254.
- Attaran-Farimani G., Estekani S., Springer V.G., Crimmen O., Johnson G.D., Baldwin, C.C. 2016. Validation of the synonymy of the teleost blenniid fish species *Salarias phantasticus* Boulenger 1897 and *Salarias anomalous* Regan 1905 with *Ecsenius pulcher* (Murray 1887) based on DNA barcoding and morphology. *Zootaxa* 4072(2): 171-184.
- Bath H. 1977. [Revision of Blenniini (Pisces: Blenniidea)]. [German]. *Senckenbergiana Biologica* 57(4-6): 167-234.
- Bath H. 1983. Revision der Gattung *Antennablennius* Fowler 1931 mit Beschreibung einer neuen Art und Untersuchung der taxonomischen Stellung von *Antennablennius anuchalis* Springer & Spreitzer 1978. *Senckenbergiana Biologica*, 64 (1/3): 47-80
- Bath H. 1989. Die Arten der Gattung *Parablennius* Ribeiro 1915 im Roten Meer, Indischen und NW des Pazifischen Ozeans. *Senckenbergiana Biologica* 69(4): 301-343.
- Bath H. 1989. Eine weitere Unterart von *Parablennius tasmanianus* (Richardson 1849). *Senckenbergiana Biologica* 69(4-6): 293-300.
- Bath H. 1996. Beitrag zur Osteologie der Arten der Tribus Parablenniini. Die Beziehungen der Knochen des Schaedeldaches zum Seitenorgan-System und zu den Weichteilbildungen der Kopf-oberseite sowie die systematische Bedeutung der Befunde, nebst Bemerkungen zu *Lupinoblennius dispar* Herre 1942 (Pisces: Blenniidae). *Senckenbergiana Biologica* 76: 65-92.
- Bath H. 2008. Review of the genus *Parablennius* Miranda-Ribeiro from Australia and New Caledonia (Pisces: Blenniidae: Salariinae). *Stuttgarter Beiträge zur Naturkunde A, Neue Serie* 1: 77-94.
- Bath H., Hutchins B. 1986. Die Blenniini des australischen Raums und Neuseelands mit Beschreibung einer neuen Art und einer neuen Unterart (Pisces: Blenniidae). *Senckenbergiana Biologica* 66(4-6): 167-213.
- Bath H., Randall, J.E. 1990. Synopsis der Gattung *Salarias* Cuvier 1817 mit Beschreibung einer neuen Art (Pisces: Blenniidae). *Senckenbergiana Biologica* 71(4-6): 245-258.
- Bishop D. 2003. Warm up I. *Sports Medicine* 33(6): 439-454.

- Bleeker P. 1857. Achtste bijdrage tot de kennis der vischfauna van Amboina. *Act Soc Reg Sci Indo-Neér* 2: 1-102.
- Blegvad H., Løppenthin H. 1944. Fishes of the Iranian Gulf. *Danish Scientific Investigations in Iran part 3*. 247.
- Bloch M.E. 1785. *Ichtyologie ou histoire naturelle, générale et particulière des poissons* (Vol. 1). La Garde 29: 1-208.
- Bloch M.E. 1786. *Naturgeschichte des ausländischen Fische* 1(9): 1-108.
- Bohlke J.E. 1953. A catalogue of the type specimens of recent fishes in the Natural History Museum of the Stanford University. *Stanford Ichthyological Bulletin* 5: 1-168.
- Burt R.K., Shah S.J., Dill K., Grant T., Gheorghiade M., Schroeder J., Barr, W. 2011. Autologous non-myeloablative haemopoietic stem-cell transplantation compared with pulse cyclophosphamide once per month for systemic sclerosis (ASSIST): an open-label, randomised phase 2 trial. *The Lancet* 378(9790): 498-506.
- Cantor T. 1849. Catalogue of Malayan fishes. (Vol. 12). *Baptist Mission Press* 6: 1-1472.
- Carpenter A.C., Board J.E. 1997. Growth dynamic factors controlling soybean yield stability across plant populations. *Crop Science* 37(5): 1520-1526.
- Chiang M.C., Chen I.S. 2008. Taxonomic review and molecular phylogeny of the triplefin genus *Enneapterygius* (Teleostei: Tripterygiidae) from Taiwan, with descriptions of two new species. *The Raffles Bulletin of Zoology, Supplement* 19: 183-201.
- Chiang M.C., Chen I.S. 2012. A new species of the genus *Helcogramma* (Blenniiformes, Tripterygiidae) from Taiwan. *ZooKeys* 216: 57-72.
- Clark E. 1979. Red Sea fishes of the family Tripterygiidae with descriptions of eight new species. *Israel Journal of Ecology and Evolution* 28(2-3): 65-113.
- Clarke F.E. 1879. On some new fishes. *Transactions and Proceedings of the N. Z. Institute* (1878) 11: 291-295.
- Cuvier G. 1829. *Le règne animal distribué d'après son organisation* 78 (5): 1-556.
- Delrieu-Trottin E., Liggins L., Trnski T., Williams J.T., Neglia V., Rapu-Edmunds C., Saenz-Agudelo P. 2018. Evidence of cryptic species in the blenniid *Cirripectesalboapicalis* species complex, with zoogeographic implications for the South Pacific. *Zookeys* 810: 127-138.
- Doadrio I., Perea S., Yahyaoui A. 2011. Morphological and molecular analyses of freshwater blennids: A new species of the genus *Salaria* Forsskål, 1775 (Actinopterygii, Blennidae) in Morocco. *Graellsia* 67(2): 151-173.
- Dor M. 1984. Checklist of the fishes of the Red Sea: Clofres. *The Israel Academy of Sciences and Humanities* 978: 1-437.
- Eagderi S., Fricke R., Esmaeili H.R., Jalili P. 2019. Annotated checklist of the fishes of the Persian Gulf: Diversity and conservation status. *Iranian Journal of Ichthyology* 6: 1-171.
- Endo H., Katayama E., Miyake M., Watase K. 2010. New records of a triplefin, *Enneapterygius leucopunctatus*, from southern Japan (Perciformes: Tripterygiidae). *Fishes of Yaku-shima Island-A World Heritage island in Osumi group, Kagoshima Prefecture, southern Japan*. National Museum of Nature and Science, Tokyo 36(3): 9-16.
- Esmaeili H.R., Zarei F., Sholeh V., Sadeghi, Y., Sadeghi R., Fricke R. 2022. Morphological analysis and DNA barcoding confirm presence of a cryptic fish species, the blotched triplefin, *Enneapterygius ventermaculatus* (Teleostei: Blenniiformes: Tripterygiidae), at Qeshm Island, Persian Gulf. *Iranian Journal of Ichthyology* 9(1): 1-10.
- Estekani S., Attaran Fariman G., Ghasemzadeh J. 2019. Study on Blennies fishes (Blenniidae Rafinesque 1810) from Makoran coastal waters (Southeast of Iran). *Iranian Journal of Fisheries Sciences* 19(2): 1006-1014.
- Fowler H.W. 1953. On a collection of fishes made by Dr. Marshall Laird at Norfolk Island. In *Transactions of the Royal Society of New Zealand* 81: 257-267.
- Fraser-Brunner A. 1951. XXI.-Some new blennioid fishes, with a key to the genus *Antennablennius*. *Annals and Magazine of Natural History* 4(39): 213-220.
- Fricke R. 1991. *Ceratobregma striata*, a new triplefin (Tripterygiidae) from northern Australia, and a record of *Norfolkia brachylepis* from Western Australia. *Japanese Journal of Ichthyology* 37(4): 337-343.
- Fricke R. 1994. Tripterygiid fishes of the genus *Enneapterygius* from Bali, Indonesia, with descriptions of two new species (Teleostei: Blennioidei): *Stuttgarter Beiträge zur Naturkunde: Serie A (Biologie)*. 135p.
- Fricke R. 1994. Tripterygiid Fishes of Australia, New Zealand and the Southwest Pacific Ocean: With Descriptions of 2 New Genera and 16 New Species (Teleostei) (Vol. 24). Lubrecht & Cramer Limited. 594p.

- Fricke R. 1997. Tripterygiid fishes of the western and central Pacific, with descriptions of 15 new species, including an annotated checklist of world Tripterygiidae (Teleostei) (Vol. 29). Koeltz Scientific Books. 20: 697p.
- Fricke R. 2005. Types in the fish collection of the Staatliches Museum für Naturkunde in Stuttgart, described in 1845-2004: Stuttgarter Beiträge zur Naturkunde: Serie A, Biologie. 471: 85 p.
- Fricke R., Erdmann M.V. 2017. *Enneapterygius niue*, a new species of triplefin from Niue and Samoa, southwestern Pacific Ocean (Teleostei: Tripterygiidae). Journal of the Ocean Science Foundation 25: 14-32.
- Fricke R., Erdmann M.V. 2017. *Helcogramma atauroensis*, a new species of triplefin from Ataúro Island, Timor-Leste, eastern Indian Ocean (Teleostei: Tripterygiidae). Journal of the Ocean Science Foundation 26: 34-45.
- Fricke R., Eschmeyer W.N., Laan R. 2022. Catalog of Fishes: Genera, Species, References. <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. 4/25/2022.
- Fricke R., Golani D., Appelbaum-Golani B. 2018. First record of the Yellow-crested rockskipper *Istiblennius flaviunbrinus* (Ruppell, 1830) (Teleostei: Blenniidae) from the Gulf of Aqaba, Red Sea. Cahiers de Biologie Marine 59(4): 391-394.
- Fricke R., Patzner R.A., Gonçalves E.J., Hastings P.A., Kapoor B.G. 2009. Systematics of the Tripterygiidae (triplefins). The Biology of Blennies 31: 67p.
- Ghanbarifardi M., Malek M. 2009. Distribution, diversity, and abundance of rocky intertidal fishes in the Persian Gulf and Gulf of Oman, Iran. Marine Biology Research 5(5): 496-502.
- Gibbs S., Hundt P.J., Nelson A., Egan J.P., Tongnunui P., Simons A.M. 2018. Systematics of the combtooth blenny clade *Omobranchus* (Blenniidae: Omobranchini), with notes on early life history stages. Zootaxa 4369(2): 270-280.
- Gill T. 1867. XIV.-On a remarkable New Type of Fishes allied to Nemophis. Annals of the Lyceum of Natural History of New York 8(1): 138-141.
- Golani D., Fricke R. 2018. Checklist of the Red Sea fishes with delineation of the Gulf of Suez, Gulf of Aqaba, endemism and Lessepsian migrants. Zootaxa 4509(1): 1-215.
- Greenfield D.W. 1981. The Blennioid Fishes of Belize and Honduras, Central America, With Comments on Their Systematics, Ecology, and Distribution (Blennidae, Chaenopsidae, Labrisomidae, Tripterygiidae). Fieldiana Zoology 8: 106 p.
- Günther A.C.L.G. 1868. LIII.-Additions to the ichthyological fauna of Zanzibar. Journal of Natural History 1(6): 457-459.
- Günther A.C.L.G. 1868. Catalogue of the Fishes in the British Museum (Vol. 7). Wheldon & Wesley. 42: 592 p.
- Hadley Hansen P.E. 1986. Revision of the tripterygiid fish genus *Helcogramma*, including descriptions of four new species. Bulletin of Marine Science 38(2): 313-354.
- Hardy G.S. 1984. A new genus and species of triplefin (Pisces: family Tripterygiidae) from New Zealand. National Museum of New Zealand 2: 175-180.
- Hardy G.S. 1987. Revision of some triplefins (Pisces: Tripterygiidae) from New Zealand and Australia, with descriptions of two new genera and two new species. Journal of the Royal Society of New Zealand 17(3): 253-274.
- Hastings P.A., Springer V.G. 2009. Systematics of the Blennioidei and the included families Dactyloscopidae, Chaenopsidae, Clinidae and Labrisomidae. The Biology of Blennies 3: 1-30.
- Herre A.W. 1944. Notes on fishes in the Zoological Museum of Stanford University: XX, New fishes from China and India, a new genus, and a new Indian record. Journal of the Washington Academy of Sciences 35(12): 399-404.
- Hoban M.L., Williams J.T. 2020. *Cirripectes matatakaro*, a new species of combtooth blenny from the Central Pacific, illuminates the origins of the Hawaiian fish fauna. PeerJ 24(8): e8852.
- Holleman W. 1982. Three new species and a new genus of *tripterygiid* fishes (Blennioidei) from the Indo-West Pacific Ocean. Annals of the Cape Provincial Museums Natural History 144: 109-137.
- Holleman W. 1991. A revision of the tripterygiid fish genus *Norfolkia* Fowler, 1953 (Perciformes: Blennioidei). Annals of the Cape Provincial Museums (Natural History) 18(11): 227-243.
- Holleman W. 2005. A review of the triplefin fish genus *Enneapterygius* (Blennioidei: Tripterygiidae) in the western Indian Ocean, with descriptions of four new species. Published by the South African Institute for Aquatic Biodiversity 5: 1-25.

- Holleman W. 2006. Fishes of the *Helcogramma steinitzi* species group (Blennioidei: Tripterygiidae) from the Indian Ocean, with descriptions of two new species. *Aqua: Journal of Ichthyology and Aquatic Biology* 11(3): 89-105.
- Holleman W. 2007. Fishes of the genus *Helcogramma* (Blennioidei: Tripterygiidae) in the Western Indian Ocean, including Sri Lanka, with descriptions of four new species. *Smithiana Bulletin* (7): 51-81.
- Holleman W., Bogorodsky S.V. 2012. A review of the blennioid fish family Tripterygiidae (Perciformes) in the Red Sea, with description of *Enneapterygius qirmiz*, and reinstatement of *Enneapterygius altipinnis* Clark, 1980. *Zootaxa* 3152(1): 36-60.
- IUCN. 2022. The IUCN Red List of Threatened Species. Version 2021-3. <https://www.iucnredlist.org>. 25/4/2022.
- Jabado R.W., Kyne P.M., Pollock R.A., Ebert D.A., Simpfendorfer C.A., Ralph G.M., Dulvy N.K. 2017. The Conservation Status of Sharks, Rays, and Chimaeras in the Arabian Sea and Adjacent Waters. Environment Agency – Abu Dhabi, UAE and IUCN Species Survival Commission Shark Specialist Group, Vancouver, Canada. 236 p.
- Jatzow R., Lenz H. 1898. Fische von Ost-Afrika, Madagaskar und Aldabra. 497-531.
- Javonillo R., Harold A.S. 2010. A systematic review of the genus *Chasmodes* (Teleostei: Perciformes: Blenniidae). *Zootaxa* 2558(1): 1-16.
- Jordan D.S., Evermann B.W. 1898. The fishes of North and Middle America. US National Museum. Bulletin 47: 1241-2183.
- Jordan D.S., Evermann B.W. 1905. The shore fishes of the Hawaiian Islands, with a general account of the fish fauna. *Bulletin of the United States Fish Commission Journal* 23: 1-574.
- Jordan D.S., Evermann B.W. 1917. The genera of fishes: from Linnaeus to Cuvier, 1758-1833, seventy-five years, with the accepted type of each, a contribution to the stability of scientific nomenclature. Stanford University. 27(101): 323 p.
- Jordan D.S., Seale A. 1907. Fishes of the islands of Luzon and Panay (No. 606). US Government Printing Office 26: 1-46.
- Kayanne H., Iijima H., Nakamura N., McClanahan T.R., Behera S., Yamagata T. 2006. Indian Ocean Dipole index recorded in Kenyan coral annual density bands. *Geophysical Research Letters* 33(19): 180.
- Klausewitz W. 1960. Fische aus dem Roten Meer. IV. Einige systematisch und ökologisch bemerkenswerte Meergrundeln (Pisces, Gobiidae). *Senckenbergiana Biologica* 41: 149-162.
- Klausewitz W. 1964. Fische aus dem Roten Meer. VI. Taxonomische und ökologische Untersuchungen an einigen Fischarten der Küstenzone. *Senckenbergiana Biologica* 45(2): 123-144.
- Klunzinger C.B. 1871. Synopsis der Fische des Rothen Meeres. II Theil. Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanische Gesellschaft in Wien Journal 21: 441-688.
- Kossmann R., Räuber H. 1877. Pisces. Zoologische Ergebnisse einer im Auftrage der Königlichen Academie der Wissenschaften zu Berlin ausgeführten Reise in Küstengebiete des Rothen Meeres. Erste Hälfte. Leipzig, Wilhelm Engelmann. 3-34 p.
- Kottelat M. 2004. *Salarias economidisi*, a new species of freshwater fish from Lake Trichonis, Greece, with comments on variation in *S. fluviatilis* (Teleostei: Blenniidae). *Revue Suisse de Zoologie* 111(1): 121-137.
- Kottelat M., Freyhof J. 2007. Handbook of European freshwater fishes. Publications Kottelat. 271 p.
- Kuiter R.H. 1985. A new genus and three new species of tripterygiid fishes of Australia's south coast. *Revue Française d'aquariologie* (Nancy) 12(3): 89-96.
- Lasso-Alcalá O., Nunes J.L., Lasso C., Posada J., Robertson R., Piorski N.M., Gondolo G. 2011. Invasion of the indo-pacific blenny *Omobranchus punctatus* (Perciformes: Blenniidae) on the Atlantic coast of central and south America. *Neotropical Ichthyology* 9(3): 571-578.
- Levy A., Von der Heyden S., Floeter S.R., Bernardi G., Almada V.C. 2013. Phylogeny of *Parablennius Miranda Ribeiro*, 1915 reveals a paraphyletic genus and recent Indo-Pacific diversification from an Atlantic ancestor. *Molecular Phylogenetics and Evolution* 67(1): 1-8.
- Lichtenstein M.H.C. 1844. *Descriptiones animalium quae in itinere ad maris Australis terras per annos 1772–1774 suscepto collegit observavit et delineavit Ioannes Reinoldus Forster... nunc demum editae. Henrico Lichtenstein. Description Animalium Forster*, Berlin, Germany. 10: 425 p.

- Lin H.C., Hastings P.A. 2013. Phylogeny and biogeography of a shallow water fish clade (Teleostei: Blenniiformes). *BMC Evolutionary Biology* 13(1): 1-18.
- Lin J., Chang H.J. 2009. Should Industrial Policy in developing countries conform to comparative advantage or defy it? A debate between Justin Lin and Ha-Joon Chang. *Development Policy Review* 27(5): 483-502.
- Lokier S.W., Bateman M.D., Larkin N.R., Rye P., Stewart J.R. 2015. Late Quaternary sea-level changes of the Persian Gulf. *Quaternary Research* 84(1): 69-81.
- Lotan R. 1969. Systematic remarks on fishes of the family Salariidae in the Red Sea. *Israel Journal of Ecology and Evolution* 18(4): 363-378.
- Manilo L.G., Bogorodsky S.V. 2003. Taxonomic composition, diversity and distribution of coastal fishes of the Arabian Sea. *Journal of Ichthyology* 43(1): S75.
- McCulloch A.R. 1923. Fishes from Australia and Lord Howe Island. No. 2. *Records of the Australian Museum* 14(2): 113-125.
- McCulloch A.R., Waite E.R. 1918. Some new and little-known fishes from South Australia. *Records of the South Australian Museum* 1(1): 39-78.
- Medio D., Sheppard D.R.C., Gascoigne J. 2000. The Red Sea. In: T.R. McClanahan, C.R.C. Sheppard, D.O. Obura (Eds.), *Coral reefs of the Indian Ocean: Their ecology and conservation*. Oxford, UK: Oxford University Press. 231-256.
- Meguro M., Motomura H. 2010. First records of a triplefin (Tripterygiidae), *Enneapterygius hemimelas*, from Japan. *Fishes of Yaku-shima Island—A World Heritage island in the Osumi Group, Kagoshima Prefecture, southern Japan*. National Museum of Nature and Science, Tokyo 36: 1-8.
- Mehraban H., Esmaeili H.R. 2018. Comb-tooth blennies of the intertidal zones of Persian Gulf and Makran Sea: Morphology, taxonomy, distribution and conservation status (Blenniiformes: Blenniidae). *Iranian Journal of Ichthyology* 5(3): 192-211.
- Mehraban H., Esmaeili H.R., Gholamhosseini A., Seifali M. 2021. Hidden taxonomic characters in otoliths of blenniid fishes (Teleostei: Blenniidae) from the Iranian coasts of the Persian Gulf and Oman Sea ecoregions: A scanning electron microscopy approach. *Acta Zoologica* 102(4): 4-25. <https://doi.org/10.1111/azo.12409>.
- Mehraban H., Esmaeili H.R., Zarei F., Ebrahimi M., Gholamhosseini A. 2020. Genetic diversification, population structure, and geophylogeny of the Scarface rockskipper *Istiblennius pox* (Teleostei: Blenniidae) in the Persian Gulf and Oman Sea. *Marine Biodiversity* 50(2): 1-12.
- Mehraban H.R., Esmaeili H.R. 2017. New geographical record of the lined rockskipper, *Istiblennius lineatus* (Valenciennes, 1836) from the Iranian coast of the Makran Sea (Teleostei, Blenniidae). *Check List* 13(6): 743-746.
- Motomura H., Harazaki S., Hardy G.S. 2005. A new species of triplefin (Perciformes: Tripterygiidae), *Enneapterygius senoui*, from Japan with a discussion of its in situ colour pattern. *Aqua* 10: 5-14.
- Motomura H., Kuriwa K., Katayama E., Senou H., Ogihara G., Meguro M., Matsuura K. 2010. Annotated checklist of marine and stuarine fishes of Yakushima Island, Kagoshima, southern Japan. In: Motomura, H. & Matsuura, K. (Eds.), *Fishes of Yakushima Island—A World Heritage island in the Osumi Group, Kagoshima Prefecture, southern Japan*. 264 p.
- Motomura H., Ota R., Meguro M., Tashiro S. 2015. *Enneapterygius phoenicosoma*, a new species of triplefin (Tripterygiidae) from the western Pacific Ocean. *Species Diversity* 20(1): 1-12.
- Murray J.A. 1887. New species of fish from Kurrachee and the Persian Gulf. *Journal of the Bombay Natural History Society* 2(1): 47-49.
- Nelson, J. S., Grande, T. C., Wilson, M. V. 2016. *Fishes of the World*. John Wiley and Sons. 752 p.
- Norman J.R. 1943. LXVIII.—Notes on the Blennioid Fishes. —I. A provisional Synopsis of the Genera of the Family Blenniidae. *Annals and Magazine of natural History* 10(72): 793-812.
- Okada Y., Suzuki K. 1952. A new blennioid fish from the Sea of Japan. *Report of Faculty of Fisheries Prefectural University of Mie* 1(2): 75-77.
- Paepke H.J. 1999. Bloch's fish collection in the Museum fur Naturkunde der Humboldt-Universitat zu Berlin: an illustrated catalog and historical account. *Thesis Zoologicae* 31. ARG Gantner Verlag KG. 216 p.
- Parenti P., Randall J.E. 2020. An annotated checklist of the fishes of the family Serranidae of the world with description of two new related families of fishes. *FishTaxa* 15: 1-170.

- Parin N.V., Evseenko S.A., Vasil'Eva E.D. 2014. Fishes of Russian seas: annotated catalogue. KMK Scientific Press, Moscow 53: 733.
- Peters W. 1855. Ubersicht der in Mossambique beobachteten Seefische. Monatsschr Akad Wiss Berlin 1855: 428-466.
- Peters W.C.H. 1869. Uber die von Hrn Dr. F. Jagor in dem ostindischen Archipel gesammelten und dem Königl. zoologischen Museum übergebenen Fische. Monatsb. K. Preuss. Akad. Wiss. Berlin (30 April 1868): 254-281.
- Psomadakis P.N., Osmany H.B., Moazzam M. 2015. Field identification guide to the living marine resources of Pakistan. *FAO Species Identification Guide for Fishery Purposes*. Rome, FAO. 2015. 386 p.
- Randall J.E. 1995. A review of the triplefin fishes (Perciformes: Blennioidei: Tripterygiidae) of Oman, with descriptions of two new species of *Enneapterygius*. Revue française d'aquariologie (Nancy) 22(1-2): 27-34.
- Randall J.E. 1995. Coastal fishes of Oman. University of Hawaii Press. 439 p.
- Randall J.E., Clark E. 1993. *Helcogramma vulcana*, a new triplefin fish (Blennioidei: Tripterygiidae) from the Banda Sea, Indonesia. Revue française d'aquariologie (Nancy) 20(1): 27-32.
- Regan C.T. 1905. On fishes from the Persian Gulf, the Sea of Oman, and Karachi, collected by Mr. FW Townsend. Journal of the Bombay Natural History Society 16: 318-333.
- Regan C.T. 1908. A collection of fishes from the coast of Natal, Zululand, and the cape colony. Annals of the natal government museum journal 1: 241-245.
- Reid E.D. 1943. Review of the genera of blennioid fishes related to *Ophioblennius*. Journal of the Washington Academy of Sciences 33(12): 373-384.
- Reynolds C.S., Padisák J., Sommer U. 1993. Intermediate disturbance in the ecology of phytoplankton and the maintenance of species diversity: a synthesis. Hydrobiologia 249(1): 183-188.
- Risso A. 1810. Ichthyologie de Nice, ou, Histoire naturelle des poissons du département des Alpes Maritimes. F. Schoell. 29: 401 p.
- Roberts C.D., Stewart A.L., Struthers C.D., Barker J.J., Kortet S., Freeborn M. 2015. The Fishes of New Zealand. Vols 1-4. Museum of Te Papa Tongarewa: Wellington, New Zealand 4(S256): 1748.
- Russell P. 1803. Descriptions and figures of two hundred fishes collected at Vizagapatam on the Coast of Coromandel: Presented to the Court of Directors of the East India Company and Pub. by Their Order (Vol. 2). W. Bulmer and Company 1-2: 85p.
- Sharifiniya M., Mousavi-Sabet H., Alavi-Yeganeh M.S., Ghanbarifardi M. 2022. Molecular phylogeny and morphological characteristics of the reef margin blenny, *Entomacrodus striatus* (Valenciennes, 1836) from the Gulf of Oman (Actinopteri: Blenniiformes Blenniidae). Ecopersia 10(1): 37-46.
- Shen S.C., Wu K.Y. 1994. "A revision of the tripterygiid fishes from coastal waters of Taiwan with descriptions of two new genera and five new species. Acta Zoologica Taiwanica 5(1994): 1-32.
- Smith J.L.B. 1959. Fishes of the families Blenniidae and Salariidae of the western Indian Ocean.
- Smith-Vaniz W.F. 1969. A new species of Meiacanthus (Pisces; Blenniidae; Nemophidinae) from the Red Sea, with a review of the Indian Ocean species. Proceedings of the Biological Society of Washington journal 82: 349-354.
- Smith-Vaniz W.F. 1987. The saber-toothed blennies, tribe Nemophini (Pisces: Blenniidae): an update. Proceedings of the Academy of Natural Sciences of Philadelphia 1-52.
- Smith-Vaniz W.F. 2005. *Petroscirtes pylei*, a new saber-toothed blenny from the Fiji Islands (Teleostei: Blenniidae). Zootaxa 1046(1): 29-36.
- Smith-Vaniz W.F. 2017. A new species of the fang blenny Adelotremus from Indonesia, with supplemental description of *A. leptus* (Teleostei: Blenniidae: Nemophini). Zootaxa 4258(2): 179-186.
- Smith-Vaniz W.F., Allen G.R. 2011. Three new species of the *fangblenny* genus Meiacanthus from Indonesia, with color photographs and comments on other species (Teleostei: Blenniidae: Nemophini). Zootaxa 3046(1): 39-58.
- Smith-Vaniz W.F., Allen G.R. 2012. *Alloblennius frondiculus*, a new species of blenny from the Andaman Islands (Teleostei: Blenniidae: Salariini). Zootaxa 3199(1): 60-65.
- Smith-Vaniz W.F., Rose J.M. 2012. *Adelotremus leptus*, a new genus and species of sabertooth blenny from the Red Sea (Teleostei: Blenniidae: Nemophini). Zootaxa 3249(1): 39-46.
- Smith-Vaniz W.F., Satapoomin U., Allen G.R. 2001. *Meiacanthus urostigma*, a new fangblenny from the northeastern

- Indian Ocean, with discussion and examples of mimicry in species of *Meiacanthus* (Teleostei: Blenniidae: Nemophini). *Aqua: Journal of Ichthyology and Aquatic Biology* 5: 25-43.
- Smith-Vaniz W.F., Springer V.G. 1971. Synopsis of the tribe *Salariini*, with description of five new genera and three new species (Pisces: Blenniidae) 73: 1-80.
- Smith-Vaniz W.F., Walsh S.J. 2019. Indo-West Pacific species of *Trachinotus* with spots on their sides as adults, with description of a new species endemic to the Marquesas Islands (Teleostei: Carangidae). *Zootaxa* 4651(1): 1-37.
- Springer V.G. 1967. Revision of the circumtropical shorefish genus *Entomacrodus* (Blenniidae: Salariinae). *Proceedings of the United States National Museum*. 122 (3582):1-150.
- Springer V.G. 1971. Revision of the fish genus *Ecsenius* (Blenniidae, Blenniinae, Salariini). *Smithsonian Contributions to Zoology* 72: 1-74.
- Springer V.G. 1972. Synopsis of the tribe *Omobranchini* with descriptions of three new genera and two new species (Pisces: Blenniidae). *Smithsonian Contributions to Zoology* 130: 1-38.
- Springer V.G. 1985. *Oman ypsilon*, a new genus and species of blenniid fish from the Indian Ocean. *Proceedings of the Biological Society of Washington journal* 98: 90-97.
- Springer V.G. 1988. The Indo-Pacific blenniid fish genus *Ecsenius*. *Smithsonian Contributions to Zoology* (465):134 p.
- Springer V.G. 1991. *Ecsenius randalli*, a new species of blenniid fish from Indonesia, with notes on other species of *Ecsenius*. *Tropical Fish Hobbyist* 39(12): 100-113.
- Springer V.G., Allen G.R. 2004. *Ecsenius caeruleiventris* and *E. shirleyae*, two new species of blenniid fishes from Indonesia, and new distribution records for other species of *Ecsenius*. *Zootaxa* 791(1): 1-12.
- Springer V.G., Bath H., Randall, J.E. 1998. Remarks on the species of the Indian Ocean fish genus *Alloblennius* Smith-Vaniz & Springer 1971, (Blenniidae). *Aqua, Journal of Ichthyology and Aquatic Biology* 3(1): 19-24.
- Springer V.G., Gomon M.F. 1975. Revision of the blenniid fish genus *Omobranchus*, with descriptions of three new species and notes on other species of the tribe Omobranchini. *Smithsonian Contributions to Zoology* 177: 1-135.
- Springer V.G., Orrell T.M. 1996. Catalog of type specimens of recent fishes in the National Museum of Natural History, Smithsonian Institution. *Smithsonian Contributions to Zoology* 525: 1-24.
- Springer V.G., Randall J.E. 1999. *Ecsenius polystictus*, new species of blenniid fish from Mentawai Islands, Indonesia with notes on other species of *Ecsenius*. *Revue française d'Aquariologie* 26(1-2): 39-48.
- Springer V.G., Smith-Vaniz W.F. 1968. Systematics and distribution of the monotypic Indo-Pacific Blenniid Fish Genus *Atrosalarias*. *Proceedings of the United States National Museum*. 124(3643):1-12.
- Springer V.G., Spreitzer A.E. 1977. Five new species and a new genus of Indian Ocean blenniid fishes, tribe Salariini, with a key to genera of the tribe. *Smithsonian Contributions to Zoology* 268: 1-20.
- Springer V.G., Williams J.T. 1994. The Indo-West Pacific blenniid fish genus *Istiblennius* reappraised: a revision of *Istiblennius*, *Blenniella*, and *Paralticus*, new genus. *Smithsonian Contributions to Zoology* 565: 1-193.
- Steindachner F. 1902. *Wissenschaftliche Ergebnisse der Sudarabischen Expedition den Jahren 1898 bis 1899. Fische von Sudarabien und Socotra. Anzeiger der Akademie der Wissenschaften Wien journal* 32: 316-328.
- Stewart A.L., Clements K.D. 2015. Family Tripterygiidae. *The fishes of New Zealand* 4:1491-1523.
- Suzuki T., Senou H. 1999. *Atrosalarias hosokawai*, a new species of blenny (Perciformes: Blenniidae) from the western Pacific. *Ichthyological Research* 46(3): 259-265.
- Swainson W. 1839. On the natural history and classification of fishes, amphibians and reptiles (Vol. 2). Longman, Orme, Brown, Green and Longmans. 16 p.
- Tashiro S., Motomura H. 2014. The validity of *Helcogramma ishigakiensis* (Aoyagi, 1954) and a synopsis of species of *Helcogramma* from the Ryukyu Islands, southern Japan (Perciformes: Tripterygiidae). *Species Diversity* 19(2): 97-110.
- Tashiro S., Motomura H. 2019. *Helcogramma melanolancea*, a new triplefin (Perciformes: Tripterygiidae) from Bali, Indonesia. *Ichthyological Research* 66(1): 104-113.
- Tashiro S., Senou H., Motomura H. 2018. *Enneapterygius velatus*, a new deepwater triplefin (Perciformes: Tripterygiidae) from the Ryukyu Islands, southern Japan. *Ichthyological Research* 65(3): 346-352.
- Teimori A., Esmaeili H.R., Hamidan N., Reichenbacher B. 2018. Systematics and histori-cal biogeography of the

- Aphanius dispar species group (Teleostei: Aphaniidae) and description of a new species from Southern Iran. Journal of Zoological Systematics and Evolutionary Research 56: 579-598.
- Torquato S., Zhang G., De Courcy-Ireland M. 2019. Hidden multiscale order in the primes. Journal of Physics A: Mathematical and Theoretical 52(13): 135002.
- Wagner M., Zogaris S., Berrebi P., Freyhof J., Koblmüller S., Magnan P., Laporte M. 2021. Diversity and biogeography of Mediterranean freshwater blennies (Blenniidae, Salaria). Diversity and Distributions 27(9): 1832-1847.
- Whitehead P.J.P., Bauchot M.L., Hureau J.C., Nielsen J., Tortonese E. 1984. Fishes of the north-eastern Atlantic and the Mediterranean. Journal of the Marine Biological Association of the United Kingdom 1: 510 p.
- Whitley G.P. 1943. Ichthyological notes and illustrations (part 2). Australian Zoologist 10(2): 167-187.
- Williams J.T. 1988. Revision and phylogenetic relationships of the blenniid fish genus *Cirripectes*. Bernice Pauahi Bishop Museum. 78p.
- Williams J.T. 1990. Phylogenetic relationships and revision of the blenniid fish genus *Scartichthys*. Smithsonian Contributions to Zoology 492:1-30.
- Williams J.T., Bogorodsky S.V. 2010. *Entomacrodus solus*, a new species of blenny (Perciformes, Blenniidae) from the Red Sea. Zootaxa 2475(1): 64-68.
- Williams J.T., Howe J.C. 2003. Seven new species of the triplefin fish genus *Helcogramma* (Tripterygiidae) from the Indo-Pacific. Aqua, Journal of Ichthyology and Aquatic Biology 7(4): 151-176.
- Williams J.T., McCormick C.J. 1990. Two new species of the triplefin fish genus *Helcogramma* (Tripterygiidae) from the Western Pacific Ocean. Copeia 4. 1020-1030.
- Zogaris S., Vidalis A., Fricke R. 2015. First record of the Oman Blenny *Oman ypsilon* Springer, 1985 (Teleostei: Blenniidae) from Kuwait and the Persian/Arabian Gulf. Cahiers de Biologie Marine Journal 56: 77-80.