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A checklist of wrasses (Labridae) and parrotfishes (Scaridae) of the world: 2017 update

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Abstract

The wrasse family Labridae *sensu stricto* contains 548 species at latest count at the end of 2017. The previous checklist by Parenti & Randall (2011) included 504 species: the additional species represent new discoveries (41 new species) plus resurrections from synonymy (6) minus species names synonymized (3). The total number of genera is maintained at 70 as two new genera have been erected (*Sagittalarva* Victor, Alfaro & Sorenson, 2013 for *Pseudojuloides inornatus* (Gilbert, 1890) and *Novaculops* Schultz, 1960, removed from synonymy with *Xyrichtys* Cuvier, 1814), and two genera have been synonymized: *Nelabrichthys* Russell, 1983 is a junior synonym of *Suezichthys* Smith, 1958 (Russell & Westneat 2013) and *Xiphochelilus* Bleeker, 1856 is now regarded as a subgenus of *Choerodon* Bleeker, 1847 (Gomon 2017). There are some discrepancies with the total number of labrid species (558) reported by the Catalog of Fishes by Eschmeyer *et al.* (2018) and they are discussed herein. Only one species of parrotfish (Scaridae) has been described as new since the last checklist in 2011.

Key words: ichthyology, taxonomy, systematics, coral reef fishes, species list, catalog, Indo-Pacific Ocean.

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Introduction

Parenti & Randall (2000) originally published an annotated checklist of Labridae and Scaridae and updated the checklist several years later (Parenti & Randall 2011). In the first checklist, there were 453 species of Labridae and 88 species of Scaridae. Research efforts on systematics of wrasses and parrotfishes subsequently continued



into the new century at significant speed, leading to the addition of almost 100 new species of wrasses and 12 new species of parrotfishes. Thus Labridae remains the third most speciose marine fish family, after Gobiidae and Serranidae. Most of the discoveries of new species unknown to science have been from the western Pacific Ocean and the western Indian Ocean, followed by the eastern Pacific Ocean and the south Pacific Ocean regions. No new species have been described from the Atlantic Ocean in the last 6 years.

There is some controversy at present whether Labridae *sensu stricto* and Scaridae should be regarded as both belonging to the Labridae *sensu lato*, or whether the parrotfishes are deserving of separate family status. The argument for uniting the wrasses and parrotfishes are based mainly on phylogenetic evidence that parrotfishes are nested within wrasse lineages and, if they were elevated to the family level, it would result in a paraphyletic Labridae (Westneat & Alfaro 2005). Recently, however, Randall & Parenti (2014) discussed the controversy, and, on the basis of ecological, morphological and nomenclatural stability, concluded that Scaridae should retain family status, and that convention is followed here.

Results

The number of species currently recognized in 2017 as belonging to Labridae *sensu stricto* is 548 species in 60 genera, including 27 monotypic genera, 16 genera containing fewer than 10 species, 9 genera with 10–16 species, and 8 genera with 20 or more species (Table 1). Those 8 large genera contain a total of 312 species. The three most speciose genera are *Halichoeres* with 80 species, *Cirrhilabrus* with 58 species, and *Bodianus* with 46 species. A new monotypic genus (*Sagittalarva*) has been proposed for the species *Pseudojuloides inornatus* (Gilbert) and the genus *Novaculops* has been removed from synonymy with *Xyrichtys* and now comprises 7 species.

Species and genera are arranged alphabetically in the following checklist. Only those genera whose status or species composition has changed since the last annotated checklist (Parenti & Randall 2011) are reported. Similarly, only species not included in the previous checklist, or nominal species that have changed their status since then, are reported.

FAMILY LABRIDAE

GENUS *Bodianus* Bloch

The genus now contains 46 species: since 2011, one new species has been described and two have been resurrected from synonymy.

Bodianus atrolumbus (Valenciennes, 1839)

Cossyphus atrolumbus Valenciennes in Cuvier & Valenciennes, 1839: 123 (Mauritius).

Cossyphus nigromaculatus Gilchrist & Thompson, 1908: 197 (Durban, South Africa).

Chaeropsodes pictus Gilchrist & Thompson, 1909: 260 (Durban, South Africa).

Distribution. Known from the three Mascarene Islands (type locality, Mauritius), as well as St. Brandon's Shoals, KwaZulu-Natal, South Africa, and southern Mozambique.

Remarks. Resurrected from synonymy by Randall & Victor (2013). It was placed in the synonymy of *B. perditio* (Quoy & Gaimard) by Smith (1949), followed by Gomon & Randall in Fischer & Bianchi (1984) and by Gomon (2006) in his revision of the genus. Kuitert (2010: 36) has listed *Bodianus atrolumbus* as a valid species in his pictorial review of labrid fishes.

TABLE 1
Number of valid species recognized in genera of Labridae

total=548

Genus	# of species	Genus	# of species
1. <i>Acantholabrus</i>	1	36. <i>Larabicus</i>	1
2. <i>Achoerodus</i>	2	37. <i>Leptojulius</i>	5
3. <i>Ammolabrus</i>	1	38. <i>Macropharyngodon</i>	12
4. <i>Anampses</i>	13	39. <i>Malapterus</i>	1
5. <i>Anchichoerops</i>	1	40. <i>Minilabrus</i>	1
6. <i>Austrolabrus</i>	1	41. <i>Notolabrus</i>	7
7. <i>Bodianus</i>	46	42. <i>Novaculichthys</i>	1
8. <i>Centrolabrus</i>	3	43. <i>Novaculoides</i>	1
9. <i>Cheilinus</i>	7	44. <i>Novaculops</i>	7
10. <i>Cheilio</i>	1	45. <i>Ophthalmolepis</i>	1
11. <i>Choerodon</i>	27	46. <i>Oxycheilinus</i>	10
12. <i>Cirrhilabrus</i>	58	47. <i>Oxyjulius</i>	1
13. <i>Clepticus</i>	3	48. <i>Paracheilinus</i>	20
14. <i>Conniella</i>	1	49. <i>Parajulius</i>	1
15. <i>Coris</i>	27	50. <i>Pictilabrus</i>	3
16. <i>Ctenolabrus</i>	1	51. <i>Polylepion</i>	2
17. <i>Cymolutes</i>	3	52. <i>Pseudocheilinops</i>	1
18. <i>Decodon</i>	4	53. <i>Pseudocheilinus</i>	7
19. <i>Diproctacanthus</i>	1	54. <i>Pseudocoris</i>	9
20. <i>Doratonotus</i>	1	55. <i>Pseudodax</i>	1
21. <i>Dotalabrus</i>	2	56. <i>Pseudojuloides</i>	16
22. <i>Epibulus</i>	2	57. <i>Pseudolabrus</i>	11
23. <i>Eupetrichthys</i>	1	58. <i>Pteragogus</i>	10
24. <i>Frontilabrus</i>	1	59. <i>Sagittalarva</i>	1
25. <i>Gomphosus</i>	2	60. <i>Semicossyphus</i>	3
26. <i>Halichoeres</i>	80	61. <i>Stethojulius</i>	10
27. <i>Hologymnosus</i>	4	62. <i>Suezichthys</i>	12
28. <i>Hemigymnus</i>	3	63. <i>Symphodus</i>	10
29. <i>Iniistius</i>	21	64. <i>Tautoga</i>	1
30. <i>Labrichthys</i>	1	65. <i>Tautogolabrus</i>	1
31. <i>Labroides</i>	5	66. <i>Terelabrus</i>	3
32. <i>Labropsis</i>	6	67. <i>Thalassoma</i>	28
33. <i>Labrus</i>	4	68. <i>Wetmorella</i>	3
34. <i>Lachnolaimus</i>	1	69. <i>Xenajulius</i>	1
35. <i>Lappanella</i>	2	70. <i>Xyrichtys</i>	9

***Bodianus bennetti* Gomon & Walsh, 2016**

Bodianus bennetti Gomon & Walsh, 2016: 13, Figs. 1 & 2 (Coral Sea, Flora Reef off Queensland, Australia).

Distribution. Queensland, Australia and Moorea, French Polynesia.

***Bodianus bourboni* (Fourmanoir & Guézé, 1961)**

Lepidaplois bourboni Fourmanoir & Guézé, 1961: 7, Fig. 1 (Réunion, Indian Ocean).

Distribution. Réunion, Indian Ocean.

Remarks. Resurrected from synonymy with *Bodianus leucosticticus* (Bennett, 1832) by Baranes *et al.* (2017: 281).

GENUS ***Choerodon*** Bleeker

The genus has been revised by Gomon (2017) recognizing 27 species, including three new species and one species removed from synonymy. Gomon (2017) arranged the species into 6 subgenera: 1) *Choerodon* (*Choerodon*) with 9 species: *C. anchorago*, *C. cauteroma*, *C. cephalotes*, *C. cyanodus* (including *Choerodon paynei* Whitley, 1945 new synonym), *C. graphicus*, *C. oligacanthus*, *C. rubescens*, *C. schoenleinii*, and *C. venustus*; 2) *Choerodon* (*Aspiurochilus*) with 5 species: *C. azurio* (including *Choerodon quadrifasciatus* Yu, 1968 removed from synonymy with *C. schoenleinii*), *C. cypselurus* n. sp., *C. monostigma*, *C. robustus*, and *C. zamboangae* (including *C. pescadorensis* Yu, 1968, removed from synonymy with *C. robustus*); 3) *Choerodon* (*Lienardella*) monotypic: *C. fasciatus*; 4) *Choerodon* (*Lutjanilabrus*) Gomon, 2017 monotypic: *C. vitta*; 5) *Choerodon* (*Xiphocheilus*) monotypic: *C. typus*; 6) *Choerodon* (*Paelopesia*) including *Choerodonoides* as a synonym, with 10 species: *C. albofasciatus nomen novum* for *Choerodonoides japonicus* believed to be preoccupied by *Labrus japonicus* Valenciennes (but see comments under *C. japonicus*), *C. aurulentus* n. sp., *C. frenatus*, *C. gomoni*, *C. gymnogenys*, *C. jordani*, *C. margaretiferus*, *C. skaiopygmaeus* n. sp., *C. sugillatum*, and *C. zosterophorus*).

***Choerodon japonicus* (Kamohara, 1958)**

Choerodonoides japonicus Kamohara, 1958: 2, Pl. 1/Fig. 1 (Mimase, Kochi Prefecture, Japan)

Choerodon albofasciatus Gomon, 2017: 64, Fig. 33, as *nomen novum*.

Distribution. Western Pacific Ocean.

Remarks. Removed from synonymy with *Choerodon gymnogenys* (Günther, 1867). Gomon (2017) proposed *C. albofasciatus* as a new name for *Choerodonoides japonicus* Kamohara on the grounds that it is a secondary homonym of *Labrus japonicus* Valenciennes and *Labrus japonicus* Houttuyn. However, *L. japonicus* Valenciennes is permanently invalid and it has been replaced by *Choerops azurio* Jordan & Snyder, 1901, whereas *L. japonicus* Houttuyn has been regarded as a *nomen dubium* in the genus *Pseudolabrus* (Mabuchi & Nakabo, 1997). Therefore we regard *Choerodon albofasciatus* Gomon as an unneeded replacement name.

***Choerodon aurulentus* Gomon, 2017**

Choerodon aurulentus Gomon, 2017: 69, Figs. 34 & 35 (Norfolk Ridge, New Zealand).

Distribution. Known from only two specimens collected on the Norfolk Ridge in the north-eastern Tasman Sea between New Caledonia and New Zealand at depths of 80–90 m.

***Choerodon cypselurus* Gomon, 2017**

Choerodon cypselurus Gomon, 2017: 44, Figs. 20 & 21 (Saya de Malha Bank, Seychelles, Indian Ocean).

Distribution. Known only from the type locality.

***Choerodon skaiopygmaeus* Gomon, 2017**

Choerodon skaiopygmaeus Gomon, 2017: 83, Figs. 40 & 44 (Somalia, 11.3000° N, 51.0013° E).

Distribution. Known from only 7 specimens acquired in two collections made off the Somali coast in the western Indian Ocean at depths of about 25–60 m. Gomon (2017) lists collection coordinates in error as degrees south instead of north.

GENUS ***Cirrhilabrus*** Temminck & Schlegel

The genus includes 11 new species and we have added *Cirrhilabrus ryukyuensis*, which we previously considered a subspecies of *C. cyanopleura* (Parenti & Randall 2011: 32), and now regard as valid, bringing the total number of species to 58.

***Cirrhilabrus africanus* Victor, 2016**

Cirrhilabrus sp. 2 Kuitert, 2010: 143 lower, Figs. A, B & C (South Africa).

Cirrhilabrus sp. 3 Kuitert, 2010: 145 upper, Figs. A & B (Kenya).

Cirrhilabrus africanus Victor, 2016: 35, Figs. 14–20 & 23B (Kenya).

Distribution. Kenya to Kwa-Zulu Natal, South Africa.

***Cirrhilabrus efatensis* Walsh, Tea & Tanaka, 2017**

Cirrhilabrus efatensis Walsh, Tea & Tanaka, 2017: 63, Figs. 1–4, 7A & 9A (Éfaté Island, Vanuatu).

Distribution. Known only from Vanuatu.

***Cirrhilabrus greeni* Allen & Hammer, 2017**

Cirrhilabrus greeni Allen & Hammer, 2017: 57, Figs. 1–4 (Northern Territory, Australia, eastern Timor Sea).

Distribution. Known only from the eastern Timor Sea.

***Cirrhilabrus humanni* Allen & Erdmann, 2012**

Cirrhilabrus humanni Allen & Erdmann, 2012: 1138, Figs. 1–4 (Pura Island, 8.2824° S, 124.3257° E, Alor Strait, Indonesia).

Distribution. Known only from the Alor Strait, Indonesia.

***Cirrhilabrus hygroxerus* Allen & Hammer, 2016**

Cirrhilabrus hygroxerus Allen & Hammer, 2016: 43, Figs. 1–5 (Northern Territory, Australia).

Distribution. Known only from the Northern Territory, Australia.

***Cirrhilabrus isosceles* Tea, Senou & Greene, 2016**

Cirrhilabrus isosceles Tea, Senou & Greene, 2016: 20, Figs. 1–4, 8A, 9A & 10 (Funauki Bay, Iriomote-jima, Yaeyama Islands, Ryukyu Islands, Japan).

Distribution. Philippines, Taiwan, and the Ryukyu Islands, Japan.

***Cirrhilabrus marinda* Allen, Erdmann & Dailami, 2015**

Cirrhilabrus marinda Allen, Erdmann & Dailami, 2015: 4, Figs. 1–4, 7 & 8 (Ayau Atoll, 0.3465° N, 131.0249° E, Raja Ampat Islands, West Papua Province, Indonesia).

Distribution. Indonesia and Vanuatu.

***Cirrhilabrus nahackyi* Walsh & Tanaka, 2012**

Cirrhilabrus nahackyi Walsh & Tanaka, 2012: 3, Figs. 2–5 (Beqa Lagoon, Viti Levu, Fiji Islands).

Distribution. Fiji Islands and Tonga.

***Cirrhilabrus rubeus* Victor, 2016**

Cirrhilabrus rubeus Victor, 2016: 29, Figs. 8–11, 13 & 23C (Sri Lanka).

Distribution. Maldives and Sri Lanka.

***Cirrhilabrus ryukyuensis* Ishikawa, 1904**

Cirrhilabrus ryukyuensis Ishikawa, 1904: 12, Pl. 6/Fig. 1 (Naha, Okinawa Island, Ryukyu Islands, Japan).

Distribution. Indonesia and Malaysia, to Philippines and north to Taiwan and the Ryukyu Islands, Japan.

***Cirrhilabrus shutmani* Tea & Gill, 2017**

Cirrhilabrus shutmani Tea & Gill, 2017: 78, Figs. 1–6 & 8A (Babuyan Islands, Cagayan, northern Philippines).

Distribution. Known only from the type locality.

***Cirrhilabrus squirei* Walsh, 2014**

Cirrhilabrus squirei Walsh, 2014: 124, Figs. 1–3 (Holmes Reef, Queensland [16.4377° S, 147.8932° E]).

Distribution. Great Barrier Reef and the Coral Sea.

GENUS *Coris* Lacepède

The genus *Coris* now contains 27 species as a result of one new species description.

***Coris latifasciata* Randall, 2013**

Coris latifasciata Randall, 2013b: 2, Figs. 1–3 (Peros Banhos Atoll, Chagos Archipelago).

Distribution. Chagos Archipelago and the Maldive Islands.

GENUS *Halichoeres* Rüppell

The genus *Halichoeres* still contains 80 species since one species has been described as new, whilst *Halichoeres raisneri*, listed as valid by Parenti & Randall (2011), is now regarded as synonym of *Sagittalarva inornata*. The status of the nominal species *H. chrysotaenia*, *H. kneri*, and *H. lamarii* has been discussed by Parenti & Randall (2011) and there is no new evidence to regard these species as valid. Some authors do recognize those species as valid. Recent phylogenetic studies have shown that *Halichoeres* as presently defined is clearly polyphyletic and should be split into at least 4 genera (Wainwright *et al.* 2017). Their results indicate that the New World species (western Atlantic and eastern Pacific) are monophyletic if both *Oxyjulis* and *Sagittalarva* are included in the grouping, however no morphological criteria for the grouping can be defined. Pending further morphological studies and for the aim of the present checklist, we preserve the traditional generic assignments.

***Halichoeres gurrobyi* Victor, 2016**

Halichoeres gurrobyi Victor, 2016: 12, Figs. 1–4 (Mauritius).

Distribution. Known only from Mauritius.

GENUS *Hemigymnus* Günther

The genus contains three species: *Hemigymnus melapterus*, *H. fasciatus*, and *H. sexfasciatus*. The latter species was formerly regarded as a synonym of *H. fasciatus*.

***Hemigymnus sexfasciatus* (Rüppell, 1835)**

Halichoeres sexfasciatus Rüppell, 1835: 18 (Jeddah, Saudi Arabia, Red Sea).

Distribution. Endemic to the Red Sea.

Remarks. Resurrected from synonymy by Randall (2013a) for the Red Sea endemic species. No synonyms are known. *Hemigymnus sexfasciatus* (Rüppell) was not accepted by Klunzinger (1871: 547), who listed it as a junior synonym of *H. fasciatus*. He was followed by many others, such as Day (1877: 396), Fowler & Bean (1928: 245), de Beaufort (1940: 143), Smith (1949: 208), Roux-Estève & Fourmanoir (1955: 198), Randall (1983: 122), Dor (1984: 203), Field & Field (1998: 148), and Parenti & Randall (2000: 25). Only the popular books of Kuitert (2002: 205, 2010: 355) and Lieske & Myers (2004: 160) previously accepted the validity of *H. sexfasciatus*.

GENUS *Iniistius* Gill

The genus *Iniistius* had been synonymized with *Xyrichtys* in the original checklist (Parenti & Randall 2000). The species of *Iniistius* were restored in Parenti & Randall (2011) and 19 species were listed. Two new species from the Indian Ocean have been recently described, bringing the total number of species to 21.

Iniistius brevipinnis Randall, 2013

Iniistius brevipinnis Randall, 2013b: 10, Fig. 6 (off Port Edwards, 31.1077° S, 30.2443° E, Eastern Cape Province, South Africa).

Distribution. Known only from South Africa.

Iniistius naevus Allen & Erdmann, 2012

Iniistius naevus Allen & Erdmann, 2012: 1142, Figs. 1–3 (South Sentinel Island, Andaman Islands).

Distribution. Known only from the Andaman Islands.

GENUS *Macropharyngodon* Bleeker

The genus *Macropharyngodon* now contains 12 species as a result of one new species as well as a subspecies raised to species level by Randall (2013b).

Macropharyngodon marisrubri Randall, 1978

Macropharyngodon bipartitus marisrubri Randall, 1978: 759, Figs. 5A & B (Taba, Gulf of Aqaba, Red Sea).

Distribution. Endemic to the Red Sea.

Remarks. Resurrected from synonymy with *Macropharyngodon bipartitus* Smith, 1957. Raised to the species level by Randall (2013b).

Macropharyngodon pakoko Delrieu-Trottin, Williams & Planes, 2014

Macropharyngodon pakoko Delrieu-Trottin, Williams & Planes, 2014: 435, Figs. 1–3 & 4A (Banc Clark, 8.0893° S, 139.6352° W, Marquesas Islands, French Polynesia).

Distribution. Known only from the Marquesas Islands in French Polynesia.

GENUS *Nelabrichthys* Russell

The genus *Nelabrichthys* had been previously regarded as valid, containing a single species. However, Russell & Westneat (2013) revised the generic description of *Suezichthys* Smith, 1958 and concluded that *Nelabrichthys* should be regarded as a synonym of *Suezichthys*.

GENUS *Novaculops* Schultz

The genus *Novaculops* Schultz [L.P.] in Schultz, Chapman, Lachner & Woods, 1960 had been synonymized with *Novaculichthys* Bleeker, 1862 in the first checklist (Parenti & Randall 2000: 31), as well as in Randall & Earle (2002: 390). In the second checklist by Parenti & Randall (2011: 37), the species of *Novaculops* were transferred to *Xyrichtys* Cuvier. Subsequently, *Novaculops* Schultz was reinstated as valid by Randall (2013: 20), Ho *et al.* (2013: 75), and Motomura *et al.* (2017: 185). The genus *Novaculops* now comprises 7 species, including the 6 previously placed in *Xyrichtys*, i.e. *Novaculops halsteadi* (Randall & Lobel, 2003); *Novaculops koteamea* (Randall & Allen, 2004); *Novaculops pastellus* (Randall, Earle & Rocha, 2008); *Novaculops rajagopalani* (Venkataramanujam, Venkataramani & Ramanathan, 1987); *Novaculops sciistius* (Jordan & Thompson, 1914); and *Novaculops woodi* (Jenkins, 1901). As a consequence, the genus *Xyrichtys* now includes only 9 valid species instead of the 15 species reported in Parenti & Randall (2011: 37). An additional new species of *Novaculops* is listed here.

Novaculops alvheimi Randall, 2013

Novaculops alvheimi Randall, 2013b: 20, Fig. 15 (southeast of St. Brandon's Shoals (Cargados Carajos), 17.2753° S, 58.6744° E, southern Indian Ocean).

Distribution. Known only from the type locality.

GENUS *Oxycheilinus* Gill

The genus *Oxycheilinus* now contains 10 species as a result of one new species description.

Oxycheilinus samurai Fukui, Muto & Motomura, 2016

Oxycheilinus samurai Fukui, Muto & Motomura, 2016: 215, Figs. 1–3 (Ryukyu Islands, Japan).

Distribution. Indonesia, Philippines, and southern Japan.

GENUS *Paracheilinus* Fourmanoir

The genus *Paracheilinus* now contains 20 species as a result of 4 new species descriptions.

Paracheilinus alfiani Allen, Erdmann & Yusmalinda, 2016

Paracheilinus alfiani Allen, Erdmann & Yusmalinda, 2016: 32, Figs. 7–9 (Waru Waruwuntun, 8.2733° S, 123.2458° E, Lembata Island, Lesser Sunda Islands, Indonesia).

Distribution. Known only from the type location in Lewaling Bay in Indonesia.

Paracheilinus paineorum Allen, Erdmann & Yusmalinda, 2016

Paracheilinus paineorum Allen, Erdmann & Yusmalinda, 2016: 62, Figs. 2A, 6A, 18 & 38–40 (southwestern Flores, 8.8096° S, 119.8367° E, Lesser Sunda Islands, Indonesia).

Distribution. Ranges widely in central Indonesia.

***Paracheilinus rennyae* Allen, Erdmann & Yusmalinda, 2013**

Paracheilinus rennyae Allen, Erdmann & Yusmalinda, 2013: 195, Figs. 1–4 (southwestern Flores, Indonesia).

Distribution. Flores and Komodo, Indonesia.

***Paracheilinus xanthocirritus* Allen, Erdmann & Yusmalinda, 2016**

Paracheilinus xanthocirritus Allen, Erdmann & Yusmalinda, 2016: 79, Figs. 6B, 18 & 53–57 (Selai Island, 3.1811° N, 106.4936° E, Anambas Islands, Indonesia).

Distribution. Known from the South China Sea at the Anambas Islands, Indonesia (about 250 km northeast of Singapore) and Brunei.

GENUS *Pseudocoris* Bleeker

The Indo-Pacific genus *Pseudocoris* is represented by 9 species: three pairs of sibling species that split between the Indian and Pacific Oceans and three endemic to various parts of the Pacific Ocean. Three new species are added to the previous checklist.

***Pseudocoris hemichrysos* Randall, Connell & Victor, 2015**

Pseudocoris hemichrysos Randall, Connell & Victor, 2015: 26, Figs. 1 & 22–25 (Maldives).

Distribution. Maldives, Mauritius, and the Chagos Archipelago.

Remarks. Split from the W. Pacific sibling species *Pseudocoris yamashiroi* (Schmidt).

***Pseudocoris occidentalis* Randall, Connell & Victor, 2015**

Pseudocoris sp. Kuitert, 2002: 178, Figs. A–C (KwaZulu-Natal, South Africa).

Pseudocoris occidentalis Randall, Connell & Victor, 2015: 13, Figs. 1 & 8–14 (Mombasa, Kenya).

Distribution. Western Indian Ocean.

Remarks. Split from the W. Pacific sibling species *Pseudocoris heteroptera* (Bleeker).

***Pseudocoris petila* Allen & Erdmann, 2012**

Pseudocoris petila Allen & Erdmann, 2012: 1146, Figs. 1–5 (South Cinque Island, Andaman Islands).

Distribution. Andaman Islands, northwest Sumatra, Réunion, and South Africa

Remarks. Split from the W. Pacific sibling species *Pseudocoris bleekeri* (Hubrecht).

GENUS *Pseudojuloides* Fowler

The genus *Pseudojuloides* now contains 16 species: 6 recently described as new and one listed in Parenti & Randall (2000: 36) as *Pseudojuloides inornatus* (Gilbert), has been moved to the new genus *Sagittalarva* Victor, Alfaro & Sorenson.

***Pseudojuloides edwardi* Victor & Randall, 2014**

Pseudojuloides edwardi Victor & Randall, 2014: 3, Figs. 1–4 & 6A (Mombasa, Kenya).

Distribution. Known only from the type locality.

***Pseudojuloides labyrinthus* Victor & Edward, 2016**

Pseudojuloides labyrinthus Victor & Edward, 2016: 60, Figs. 1–6 (Mombasa, Kenya).

Distribution. Known only from the type locality.

***Pseudojuloides polackorum* Connell, Victor & Randall, 2015**

Pseudojuloides polackorum Connell, Victor & Randall, 2015: 51, Figs. 1–5 (Mombasa, Kenya).

Distribution. Western Indian Ocean from Kwa-Zulu-Natal, South Africa to Kenya and Madagascar.

Remarks. Split from the other members of the allopatric Indo-Pacific *P. cerasinus* species complex.

***Pseudojuloides polynesica* Victor, 2017**

Pseudojuloides polynesica Victor, 2017: 18, Figs. 7–12 & 14 (Austral Islands, French Polynesia).

Distribution. French Polynesia (excluding the Marquesas Islands), Austral Islands, Cook Islands, and the Line Islands.

Remarks. Split from the other members of the allopatric Indo-Pacific *P. cerasinus* species complex.

***Pseudojuloides splendens* Victor, 2017**

Pseudojuloides splendens Victor, 2017: 13, Figs. 1–6 & 14 (Vanuatu).

Distribution. Tropical and sub-tropical western Pacific Ocean.

Remarks. Split from the other members of the allopatric Indo-Pacific *P. cerasinus* species complex.

***Pseudojuloides zeus* Victor & Edward, 2015**

Pseudojuloides zeus Victor & Edward, 2015: 43, Figs. 1–3 (Majuro, Marshall Islands, Micronesia).

Distribution. Known only from Palau and Majuro in Micronesia, expected to be more widespread.

GENUS *Pseudolabrus* Bleeker

Pseudolabrus japonicus (Houttuyn, 1782) and *Pseudolabrus sieboldi* Mabuchi & Nakabo, 1997 are both considered valid in Eschmeyer *et al.* (2018); however, the latter name was originally proposed as a replacement name for *Labrus japonicus* Houttuyn, 1782 *nomen dubium*. The total number of species of the genus *Pseudolabrus* is thus 11 and not 12.

GENUS *Pteragogus* Peters

The genus *Pteragogus* now contains 10 species as a result of three new species described from the Red Sea and western Indian Ocean.

Pteragogus clarkae Randall, 2013

Pteragogus clarkae Randall, 2013b: 24, Fig.17 (Hurghada, Egypt, Red Sea).

Distribution. Endemic to the Red Sea.

Pteragogus trispilus Randall, 2013

Pteragogus trispilus Randall, 2013b: 29, Figs. 20-22 (Gulf of Aqaba, Red Sea).

Distribution. Endemic to the Red Sea.

Pteragogus variabilis Randall, 2013

Pteragogus variabilis Randall, 2013b: 34, Figs. 23–27 (Mauritius).

Distribution. Mauritius, Aldabra Atoll, and St. Brandon's Shoals.

GENUS *Sagittalarva* Victor, Alfaro & Sorenson

Sagittalarva Victor, Alfaro & Sorenson, 2013: 557 (*Pseudojulis inornatus* Gilbert, 1890, by original designation).

Remarks. The monotypic genus *Sagittalarva* Victor, Alfaro & Sorenson was erected for the single eastern Pacific Ocean species. Eschmeyer *et al.* (2018) followed Wainwright *et al.* (2017) in assigning the species to *Halichoeres* based on a phylogenetic analysis showing that the New World *Halichoeres*, including *Sagittalarva* and *Oxyjulis*, are monophyletic and thus belong in the same genus to avoid paraphyly, although there is no morphological diagnosis for the unified grouping. Pending morphological evaluation, we preserve traditional generic assignments.

GENUS *Suezichthys* Smith

The genus *Suezichthys* now contains 12 species with the addition of *Suezichthys ornatus* (Carmichael, 1819), previously placed in the genus *Nelabrichthys*, and a recently described species.

Suezichthys rosenblatti Russell & Westneat, 2013

Suezichthys rosenblatti Russell & Westneat, 2013: 91, Fig. 1 (Caleta Las Moscas, 26.3347° S, 79.8903° W, Isla San Ambrosio, Desventuradas Islands, Chile, eastern Pacific Ocean).

Distribution. Desventuradas Islands and Juan Fernández Archipelago, Chile, eastern Pacific Ocean.

GENUS *Terelabrus* Randall & Fourmanoir

The genus *Terelabrus* now contains three species with the addition of two new species to the prior single western Pacific species, *Terelabrus rubrovittatus* Randall & Fourmanoir.

Terelabrus dewapyle Fukui & Motomura, 2015

Terelabrus dewapyle Fukui & Motomura, 2015: 560, Figs. 1–4 (off south coast of Iou-jima, Mishima, Osumi Group, Kagoshima, Japan).

Distribution. Western Pacific Ocean; collected from southern Japan (Iou-jima), Papua New Guinea, and Fiji and documented from Indonesia and Japan (Yaku-shima) on the basis of underwater photographs.

Terelabrus flavocephalus Fukui & Motomura, 2016

Terelabrus flavocephalus Fukui & Motomura, 2016: 2, Figs. 1, 2a & 5–6 (Maldives).

Distribution. Known only from the Maldives.

GENUS *Xiphocheilus* Bleeker

Xiphocheilus is presently regarded as a valid subgenus of *Choerodon* (Gomon, 2017), see above.

Comparison to Labridae of The Catalog of Fishes

Discrepancies between species considered as valid for the present checklist and those considered valid by The Catalog of Fishes as of 30 April 2018 (Eschmeyer *et al.* 2018) are listed here:

Crenilabrus nematopterus Bleeker, 1851, a synonym of *Pteragogus flagellifer* (Valenciennes, 1839) according to Parenti & Randall (2000: 38), is listed as valid as *Pterogogus nematopterus* (Bleeker, 1851) following Kuitert (2010: 162).

Gomphosus caeruleus klunzingeri Klausewitz, 1962, a synonym of *Gomphosus caeruleus* Lacepède, 1801 (Parenti & Randall 2000: 18), but a valid subspecies (Dor 1984: 201, Goren and Dor 1994: 54, Randall 1995: 277), is elevated to the species level as *Gomphosus klunzingeri* Klausewitz, 1962 following Kuitert (2010: 210) and considered endemic to Red Sea.

Halichoeres kneri Bleeker, 1862, a synonym of *Halichoeres nigrescens* (Bloch & Schneider, 1801) according to Parenti & Randall (2000: 23) and Parenti & Randall (2011: 34), is regarded as valid as *Hemiulius kneri* (Bleeker, 1862) citing Kuitert (2010: 264) and valid as *Halichoeres kneri* Bleeker, 1862 citing Allen & Adrim (2003: 49) and Allen & Erdmann (2012: 674).

Julis annularis Valenciennes in Cuvier & Valenciennes, 1839, a synonym of *Halichoeres marginatus* Rüppell, 1835 according to Parenti & Randall (2000: 22), is regarded as valid as *PlatyGLOSSUS annularis* (Valenciennes, 1839) following Kuitert (2010:270) and valid as *Halichoeres annularis* (Valenciennes, 1839).

Julis (Halichoeres) chrysotaenia Bleeker, 1853, a synonym of *Halichoeres melanurus* (Bleeker, 1851) according to Parenti & Randall (2000: 22) and Parenti & Randall (2011: 34), is listed as valid as *PlatyGLOSSUS chrysotaenia* (Bleeker, 1853) following Kuitert (2010: 272) and as *Halichoeres chrysotaenia* (Bleeker, 1853) following Allen & Adrim (2003: 49), Kuitert (2010: 254), and Allen & Erdmann 2012: 670).

Julis lamarii Valenciennes in Cuvier & Valenciennes, 1839, a synonym of *Halichoeres marginatus* Rüppell, 1835 according to Fricke (1999: 415), Parenti & Randall (2000: 22), and Parenti & Randall (2011: 35) is regarded as valid as *PlatyGLOSSUS lamarii* (Valenciennes, 1839) following Kuitert (2010: 271) and as valid as *Halichoeres lamarii* (Valenciennes, 1839) following Adrim *et al.* (2004: 124) and Fricke *et al.* (2009: 86).

Julis (Julis) schwaneveldii Bleeker, 1853, a synonym of *Thalassoma hardwicke* (Bennett, 1830) according to Randall *et al.* (1990: 337), Parenti & Randall (2000: 45), and Randall (2005: 439), is listed as valid as *Thalassoma schwaneveldii* (Bleeker, 1853) following Kuitert (2010: 193).

Labrus burgall Schöpf, 1788, a synonym of *Tautogolabrus adspersus* (Walbaum, 1792) according to Parenti & Randall (2000: 44), is listed as valid as *Tautogolabrus burgall* (Schöpf, 1788) following Kuitert (2010: 99). NOTE: Kuitert (2010) used this combination instead of *Tautogolabrus adspersus*, therefore both cannot be considered valid.

Labrus scina Forsskål, 1775, a synonym of *Symphodus rostratus* (Bloch, 1791) according to Tortonese (1975), Parenti & Randall (2000: 43), Parin (2003: S19), and Fricke (2008: 49), is regarded as valid as *Symphodus scina* (Fabricius, 1775) following Vasil'eva (2007: 120) and Parin *et al.* (2014: 381). NOTE: Vasil'eva (2007: 120) and Parin *et al.* (2014: 381) use *Symphodus scina* as the valid name for the species currently known as *Symphodus rostratus*, therefore both cannot be considered valid.

FAMILY SCARIDAE

Sparisoma choati Rocha, Brito & Robertson, 2012

Sparisoma choati Rocha, Brito & Robertson, 2012: 62, Figs. 1, 2A & B (northeastern coast of São Tomé Island, Gulf of Guinea, eastern Atlantic Ocean).

Distribution. Eastern Atlantic Ocean: Cape Verde Islands and Senegal, south to offshore islands in the Gulf of Guinea and northern Angola.

TABLE 2
Number of valid species recognized
in genera of Scaridae

	total=99
1. <i>Bolbometopon</i>	1
2. <i>Calotomus</i>	5
3. <i>Cetoscarus</i>	2
4. <i>Chlorurus</i>	17
5. <i>Cryptotomus</i>	1
6. <i>Hipposcarus</i>	2
7. <i>Leptoscarus</i>	1
8. <i>Nicholsina</i>	3
9. <i>Scarus</i>	52
10. <i>Sparisoma</i>	15

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