



## Additions and emendations to the annotated checklist of anthiadine fishes (Percoidei: Serranidae)

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### Abstract

Anderson (2018) published an annotated checklist of anthiadine fishes with information on the 29 genera and 226 species then considered valid. Since then there have been a number of publications on the systematics of anthiades, including descriptions of 23 new species and one new genus. Herein, data on those new taxa and emended accounts of others are presented.

**Key words:** checklist, anthiadine serranids, Anthiadidae

### Introduction

As pointed out by Anderson (2018), the subfamily Anthiinae is an important group of marine fishes in tropical and temperate waters worldwide. Accordingly, he presented a list of the 29 genera and 226 species of anthiades then recognized as valid and included for each genus the type species and number of species recognized and for each species the valid name (and name under which it was originally described, if different), primary type(s), type locality, reference(s) to illustration(s), counts, and distribution. Herein, I present an update that includes accounts of 23 recently described species and two taxa that have been elevated from subspecies to species level. Also, three other species have been placed in the synonymy of other anthiades and noted herein. The result of these changes is the addition of 22 species to the list—making a total of 248 anthiadine species currently recognized. Also, new information on other species and an account of a new genus *Pyronotoanthias*, described by Gill (2022), are included. This makes a total of 30 genera of anthiades now recognized. It should be noted that Dornburg and Near (2021) elevated the Anthiinae to the familial level, recognizing them as the Anthiadidae.

Museum acronyms used are those found in Fricke *et al.* (2022). The following abbreviations are used: D = dorsal-fin rays. A = anal-fin rays. (For dorsal and anal fins, spines are shown as Roman numerals, soft [segmented] rays as Arabic numerals.) P = pectoral-fin rays. C = principal caudal-fin rays, usually shown as total number (with number in upper lobe plus number in lower lobe in parentheses; on occasion branched rays are shown and indicated). V = vertebrae, shown as total number (with number of precaudal plus number of caudal vertebrae in parentheses). S = supraneurals. GR = gillrakers shown as total number on first gill arch (with number on upper limb + number on lower limb in parentheses). LL = tubed lateral line scales. CP = number of scales around narrowest part of caudal peduncle. SL = standard length. TL = total length.

### *Anthias albofasciatus* Fowler & Bean, 1930

A junior synonym of *Tosana niwae*, see account for that species, below.

***Anthias xanthomaculatus* Fourmanoir & Rivaton, 1979**

See *Odontanthias xanthomaculatus*, below.

***Dactylanthias* Bleeker, 1871**

Type species: *Anthias aplodactylus* Bleeker, 1858, by monotypy.

One species.

***Dactylanthias aplodactylus* (Bleeker, 1858)**

*Anthias aplodactylus* Bleeker, 1858

*Dactylanthias baccheti* Randall, 2007

**Holotype:** RMNH 5457, 170 mm SL.

**Type locality:** off Ambon, Indonesia.

**Illustrations:** Randall, 2007, fig. 1; Pogonoski & Gill, 2021, figs. 1-8.

**Counts:** D: X, 17. A: III, 7. P: 18 or 19. C: 17 (9 + 8). V: 26 (10 + 16). S: 3. GR: 34 or 35 (10 + 24 or 25). LL: 37 to 42. CP: 21 to 23.

**Distribution:** known from the Pacific (Ambon, Indonesia; Nauru; Tuamotu Archipelago) and the Indian Ocean (Maldives).

***Dactylanthias baccheti* Randall, 2007**

A junior synonym of *Dactylanthias aplodactylus* (see above)

***Luzonichthys* Herre, 1936**

Type species *Mirolabrichthys waitei* Fowler, 1931, by original designation (also monotypic). Eight species.

***Luzonichthys kiomeamea* Shepherd, Pinheiro, Phelps, Pérez-Matus, & Rocha, 2019**

**Holotype:** CAS 244640, 45.7 mm SL.

**Type locality:** Hanga Piko, Rapa Nui (Easter Island); 27°9'12" S (-27.15333°), 109°26'52" W (-109.44778°), depth 83 meters.

**Illustrations:** Shepherd, Pinheiro, Phelps, Pérez-Matus, & Rocha, 2019, figs. 1–4

**Counts:** D: X, 16. A: III, 7. P: 22. C: 15 (8 + 7). V: 26 (11 + 15). S: 0. GR: 38 (12 + 26). LL: 64. CP: 28.

**Distribution:** known only from the type locality, off Easter Island.

***Meganthias natalensis* (Fowler, 1925)**

*Sacura natalensis* Fowler, 1925

**Holotype:** ANSP 93154, 289 mm SL.

**Type locality:** off KwaZulu–Natal, South Africa.

**Illustrations:**; Randall & Heemstra, 2006: pl. VIII, A & B; Zajonz, Bogorodsky, & Victor, 2020, fig. 1.

**Counts:** D: X, 17 to 19. A: III, 8 or 9. P: 16 to 18 (usually 17). C: 15 (8 + 7). V: 26 (10 + 16). S: 2. GR: 33 to 41 (9 to 14 + 24 to 27). LL: 43 to 51. CP: 22 to 26.

**Distribution:** Indian Ocean—southwestern (off South Africa, Mozambique, Kenya, Madagascar, Seychelles, and Mascarenes) and northwestern (off Abd al-Kuri Island, Socotra Archipelago).

### ***Mirolabrichthys* Herre, 1927**

Type species: *Mirolabrichthys tuka* Herre & Montalban in Herre, 1927. Three species. Previously considered as a subgenus of *Pseudanthias* Bleeker, 1871, until Gill, 2022, recognized it at the generic level and included three species—*Mirolabrichthys tuka*, *M. pascalus* (Jordan & Tanaka, 1927), and *M. evansi* (Smith, 1954).

### ***Nemanthias* Smith, 1954**

Type species: *Nemanthias carberryi* Smith, 1954, by original designation (also monotypic).

Six species. Formerly considered to include a single species, but Gill, 2022, relegated five others, previously assigned to the subgenus *Mirolabrichthys* (genus *Pseudanthias*)—*Nemanthias bartlettorum* (Randall & Lubbock), *N. bicolor* (Randall), *N. dispar* (Herre), *N. ignitus* (Randall & Lubbock), and *N. regalis* (Randall & Lubbock).

### ***Odontanthias* Bleeker, 1873**

Type species: *Anthias rhodopeplus* Günther, 1872, by subsequent designation of Bleeker, 1876. Sixteen species.

#### ***Odontanthias xanthomaculatus* (Fourmanoir & Rivaton, 1979)**

*Anthias xanthomaculatus* Fourmanoir & Rivaton, 1979

*Pseudanthias xanthomaculatus* (Fourmanoir & Rivaton, 1979); Anderson, 2018.

See Gill & Russell, 2019.

**Holotype:** MNHN IC-1978-0477, 42.0 mm SL.

**Type locality:** Bulari Pass, New Caledonia, depth 200 meters.

**Illustrations:** Fourmanoir & Rivaton, 1979:414, fig. 8; Gill & Russell, 2019:178–179, figs. 1 & 2.

**Counts:** D: X, 14. A: III, 7. P: 16. C: 17 (9+ 8)—branched 13 (7 + 6). V: 26 (10 + 16). S: 2. GR: 41 (13 + 28). LL: 37. CP: 24.

**Distribution:** western South Pacific: off New Caledonia.

### ***Plectranthias* Bleeker, 1873**

Type species: *Plectropoma anthioides* Günther, 1872, by monotypy. Sixty-six species.

#### ***Plectranthias ahiahiata* Shepherd, Phelps, Pinheiro, Pérez-Matus, & Rocha, 2018**

**Holotype:** CAS 244172, 39.95 mm SL

**Type locality:** Hanga Piko, Rapa Nui (Easter Island); 27°9'12" S, 109°26'52" W, depth 83 meters.

**Illustrations:** Shepherd, Phelps, Pinheiro, Pérez-Matus, & Rocha, 2018, figs. 1–3.

**Counts:** D: X, 18. A: III, 7. P: 18. C: 14 (7 + 7, branched). V: 26 (10+ 16). S: 3. GR: 17 (6 +11). LL: 31. CP: 16.

**Distribution:** known only from the type locality, off Easter Island. .

#### ***Plectranthias azumanus* (Jordan & Richardson, 1910)**

*Pseudanthias azumanus* Jordan & Richardson, 1910

**Syntypes** NMW 42378-79 (1, 3).

**Type locality:** Tokyo Bay, Japan

**Illustrations:** Gill, Pogonoski, Moore & Johnson, 2021, figs. 10, 12.

**Counts:** D: X, 14 or 15 (rarely X, 14). A: III, 7. P: 15, rarely 14. C: 17 (9+8). V: 26 (10 + 16). S: 3. GR: 20 to 23 (5 to 8 + 13 to 15). LL: 33 to 37. CP: 16.

**Distribution:** Distribution: Indo-West Pacific: Japan, Taiwan, and Western Australia.

***Plectranthias cruentus* Gill & Roberts, 2020**

**Holotype:** AMS I.42725-007, 57.3 mm SL

**Type locality:** Australia, Lord Howe Island, off Ball's Pyramid, from 31°49.11' S, 159°20.74' E to 31°49.44' S, 159°20.39' E, depth 86–89 meters.

**Illustrations:** Gill & Roberts, 2020, figs. 1 & 2; Hay & Gill, 2020, 3 figs.

**Counts:** D: X, 16 or 17. A: III, 7 or 8. P: 13. C: 17 (9+8). V: 26 (10 + 16). S: 3. GR: 17 to 19 (5 + 12 to 14). LL: 29 or 30. CP: 14.

**Distribution:** known from off Ball's Pyramid (southeast of Lord Howe Island) and off Lord Howe Island, possibly occurs off southeast Queensland, Australia.

***Plectranthias ferrugineus* Gill, Pogonoski, Moore, & Johnson, 2021**

**Holotype:** CSIRO H 8289-02, 37.6 mm SL.

**Type locality:** Australia, Western Australia, north of Dampier Archipelago, from 19°26.78' S, 116°41.51' E to 19°26.97' S, 116°41.37' E, depth 103 to 106 meters.

**Illustration:** Gill, Pogonoski, Moore, & Johnson, 2021, fig. 17.

**Counts:** D: X, 14 to 16. A: III, 7. P: 13 or 14. C: 17 (9+8). V: 26 (10 + 16). S: 3. GR: 16 to 20 (4 to 7 + 11 to 14). LL: 27 to 30. CP: 14 to 16.

**Distribution:** known from the North West Shelf off Western Australia eastwards to the Arafura Sea, Northern Territory.

***Plectranthias grahami* Gill, Pogonoski, Moore, & Johnson, 2021**

**Holotype:** AMS I.18855-003, 122.5 mm SL

**Type locality:** Australia, Tasman Sea, New South Wales, east of Bulli, 34°18' S, 151°26' E, depth 457 to 485 meters.

**Illustration:** Gill, Pogonoski, Moore, & Johnson, 2021, fig. 22.

**Counts:** D: X, 15. A: III, 7. P: 18. C: 17 (9+8). V: 27 (10 + 17). S: 3. GR: 19 (6 + 13). LL: 41 or 42. CP: 18.

**Distribution:** known only from the holotype, collected off Bulli, New South Wales, Australia, in 457 to 485 meters.

***Plectranthias hinano* Shepherd, Phelps, Pinheiro, Rocha, & Rocha, 2020**

**Holotype:** CAS 247195, field code HTP909, GenBank MN922329, 49.6 mm SL.

**Type locality:** Tahiti, French Polynesia, 17°29'27" S, 149°28'01" W, depth 98 meters.

**Illustrations:** Shepherd, Phelps, Pinheiro, Rocha, & Rocha, 2020, figs. 4 & 5A.

**Counts:** D: X, 15. A: III, 7. P: 11 or 12. C: 17 (9 + 8). V: 26 (10+ 16). S: 3. GR: 19 to 21 (7 or 8 + 12 or 13). LL: 29 or 30. CP: 12.

**Distribution:** Tahiti and Moorea, French Polynesia.

***Plectranthias kelloggi* (Jordan & Evermann, 1903)**

*Anthias kelloggi* Jordan & Evermann, 1903

**Holotype:** USNM 50642, 146 mm SL.

**Type locality:** off Kailua, Hawaii.

**Illustrations:** Randall, 1980:146, fig. 15; Randall, 2007b:193, top fig.

**Counts:** D: X, 14 to 16. A: III, 7. P: 14 to 16. C: 17 (9 + 8). V: 26 (10 + 16). S: 3. GR: 20 to 24 (6 to 8 +14 to 17). LL: 32 to 38. CP: 15 to 17.

**Distribution:** western and central Pacific.

***Plectranthias kojii* Koeda, Muto, & Wada, 2021**

**Holotype:** ZUMT 62001 (formerly KBF-I 1486), 49.4 mm SL.

**Type locality:** off Hamahiga-jima Island, near eastern coast of Okinawa-jima Island, Ryukyu Archipelago, Japan, in depth of 150 meters.

**Illustrations:** Koeda, Muto, and Wada, 2021, figs. 1–3.

**Counts:** D: X, 15. A: III, 7. P: 12 or 13. V: 26 (10 + 16). S: 2. GR: 17 (5 + 12). LL: 30.

**Distribution:** known only from a depth of 150 meters off Hamahiga-jima Island near the eastern coast of Okinawa-jima Island, Ryukyu Archipelago, southern Japan.

***Plectranthias maekawa* Wada, Senou, & Motomura, 2018**

**Holotype:** KAUM-I. 110114, 58.2 mm SL.

**Type locality:** off Gaja-jima Island, Tokara Islands, Ryukyu Islands, Kagoshima Prefecture, Japan; 29°53'04" N, 129°37'11" E, depth 170 meters.

**Illustrations:** Wada, Senou, & Motomura, 2018, figs. 1 & 2.

**Counts:** D: X, 15 or 16. A: III, 7. P: 14. C: 15 (branched). V: 26 (9 + 17). S: 3. GR: 16 or 17 (5 or 6 + 11). LL: 30.

**Distribution:** known only from Gaja-jima and Nakano-shima islands, Tokara Islands, Ryukyu Islands, Kagoshima Prefecture, Japan.

***Plectranthias mcgrouteri* Gill, Pogonoski, Moore, & Johnson, 2021**

**Holotype:** AMS I.22828-010, 74.0 mm SL.

**Type locality:** Australia, North West Shelf, 190 km northwest of Port Hedland, 19°01' S, 117°12' E, depth 200–202 meters.

**Illustrations:** Gill, Pogonoski, Moore, & Johnson, 2021:82, fig. 34.

**Counts:** D: X, 16. A: III, 7. P: 14. C: 17 (9 + 8). V: 26 (10 + 16). S: 3. GR: 15 to 19 (5 or 6 + 10 to 13). LL: 27 to 30. CP: 13 to 15.

**Distribution:** known only from specimens collected off Western Australia.

***Plectranthias melanesius* Randall, 1980**

*Plectranthias kelloggi melanesius* Randall, 1980

**Holotype:** BPBM 22484, 74.3 mm SL.

**Type locality:** south of Isle of Pines, New Caledonia.

**Illustration:** Gill, Pogonoski, Moore, & Johnson, 2021:fig. 37.

**Counts:** D: X, 15 or 16. A: III, 7. P: 15. C: 17 (9 + 8). V: 26 (10 + 16). S: 3. GR: 21 to 23 (6 or 7 + 15 or 16). LL: 32 to 34. CP: 14 to 16.

**Distribution:** Western Pacific: New Caledonia, Tasman Sea, and Queensland (Australia) in depths of 260 to 360 meters.

***Plectranthias moretonensis* Gill, Pogonoski, Moore, & Johnson, 2021**

**Holotype:** AMS I.35797-004, 31.5 mm SL.

**Type locality:** Australia, Queensland, east of Stradbroke Island, 27°27.37' S, 153°39' E, depth 77 meters.

**Illustrations:** Gill, Pogonoski, Moore, & Johnson, 2021: fig. 38.

**Counts:** D: X, 16. A: III, 7. P: 13. C: 17 (9 + 8). V: 26 (10 + 16). S: 2. GR: 17 (5 + 12). LL: 27 to 29. CP: 15.

**Distribution:** known only from the holotype collected east of Moreton Bay, Queensland, Australia.

***Plectranthias normanby* Fricke, 2021**

**Holotype:** NTUM 17216, 25.3 mm SL.

**Type locality:** Solomon Sea, Papua New Guinea, Milne Bay Province, east of Normanby Island, 9°49.12' S 151°34.73' E–9°48.78' S 151°34.05' E, depth 105–175 meters.

**Illustrations:** Fricke, 2021, figs. 1–3.

**Counts:** D: XII, 13. A: III, 7. P: 13. C: 13 (7 + 6) branched. GR: 17 or 18 (7 + 10 or 11). LL: incomplete, 17 tubed scales. CP: ca. 14.

**Distribution:** known only from off Normanby Island in the Solomon Sea, Milne Bay Province, Papua New Guinea.

***Plectranthias pallidus* Randall & Hoese, 1995**

A junior synonym of *Plectranthias retrofasciatus* Fourmanoir & Randall, 1979. See account for that species from Anderson, 2018 (below).

***Plectranthias polygonius* Shepherd, Phelps, Pinheiro, Rocha, & Rocha, 2020**

**Holotype:** CAS 247193, field code HTP906, GenBank MN922331, 29.5 mm SL.

**Type locality:** Tahiti, French Polynesia, 17°29'27"S, 149°28'01"W, depth 105 meters.

**Illustrations:** Shepherd, Phelps, Pinheiro, Rocha, & Rocha, 2020, figs. 1 & 2A.

**Counts:** D: X, 16. A: III, 7. P: 14. C: 17 (9 + 8). V: 26 (10 + 16). S: 3. GR: 18 or 19 (5 or 6 + 13). LL: 27 to 30. CP: 10 or 11.

**Distribution:** Tahiti, French Polynesia, and Maloelap Atoll, Republic of the Marshall Islands.

***Plectranthias purpuralepis* Tang, Lai, & Ho, 2020**

**Holotype:** NMMST P002339, 143.8 mm SL.

**Type locality:** ca. 25.4–25.6° N, 121.9–122.0° E; Three Northern Islands, northern Taiwan, northwestern Pacific Ocean; purchased at Keelung fish market.

**Illustrations:** Tang, Lai, & Ho, 2020, figs. 1A, 2–4, 5A, 6A, 7A, 8.

**Counts:** D: X, 16 or 17. A: III, 7. P: 13 to 15. C: 17 (9 + 8). V: 26 (10 + 16). S: 3. GR: 16 to 20 (5 or 6 + 11 to 14). LL: 32 to 36. CP: 14.

**Distribution:** known only from off northern Taiwan.

***Plectranthias retrofasciatus* Fourmanoir & Randall, 1979**

*Plectranthias pallidus* Randall & Hoese, 1995

**Holotype:** BPBM 22487, 61.8 mm SL, male (?).

**Type locality:** New Caledonia, Gazelle Pass, near northwest tip of island, depth 200 meters.

**Illustrations:** Fourmanoir & Randall, 1979:320, fig. 2; Peristiwady, Makaitipu, Satrioajie & Wibowo, 2014:88, fig. 1.

**Counts:** D: X, 16. A: III, 7. P: 13. C: 17. V: 26. GR: 16 (5 + 11). LL: 29. CP: 14.

**Distribution:** western South Pacific: off New Caledonia and North Sulawesi, Indonesia.

***Plectranthias ryukyuensis* Wada, Suzuki, Senou, & Motomura, 2020**

**Holotype:** KPM-NI 50196, 58.4 mm SL.

**Type locality:** off Hamahiga-jima Island, Okinawa Islands, Ryukyu Islands, Okinawa Prefecture, Japan, depth 190 meters.

**Illustrations:** Wada, Suzuki, Senou, & Motomura, 2020, figs. 1–5.

**Counts:** D: X, 15 or 16. A: III, 7. P: 14. C: 13 or 14 (branched). V: 26 (10 + 16). S: 3. GR: 17 to 19 (5 or 6 + 12 or 13). LL: 29 or 30.

**Distribution:** northwestern Pacific—known only from off the Ryukyu Islands, Okinawa, Japan.

***Pseudanthias* Bleeker, 1871**

Type species *Anthias pleurotaenia* Bleeker, 1857, by subsequent designation of Bleeker, 1872. Anderson (2018) gave 66 as the number of species in the genus. Recent studies show the number to be 50. This new number is based on eight species, previously assigned to *Pseudanthias*, being removed by Gill (2022) and reconsidered as members of the genera *Mirolabrichthys* Herre (three species—*evansi*, *pascalus*, *tuka*) and *Nemanthias* Smith (five species—*bartlettorum*, *bicolor*, *dispar*, *ignitus*, *regalis*), the synonymizing of two species (*albofasciatus*; *vizagensis*), the reassigning of one species (*xanthomaculatus*) to *Odontanthias*, the reclassification of eight others (*aurulentus*, *bimarginatus*, *flavoguttatus*, *lori*, *parvirostris*, *privitera*, *smithvanizi*, *unimarginatus*) to Gill's new genus *Pyronotanthias*, and the addition of three species of *Pseudanthias* described since the publication of Anderson, 2018.

***Pseudanthias albofasciatus* (Fowler & Bean, 1930)**

A junior synonym of *Tosana niwae* Smith & Pope, 1906. See account for that species from Anderson, 2018 (below).



***Pseudanthias emma* Gill & Psomadakis, 2018**

**Holotype:** SAIAB 203722, 107 mm SL.

**Type locality:** off Tanintharyi coast, Myanmar, Andaman Sea, Indian Ocean; 11°39.96' N, 97°16.16' E, depth 105 meters.

**Illustration:** Gill & Psomadakis, 2018, fig. 1.

**Counts:** D: X, 16. A: III, 7. P: 18. C: 17 (9 + 8). V: 26 (10+ 16). S: 3. GR: 33 (11 + 22). LL: 42. CP: 26.

**Distribution:** known only from the type locality, off Myanmar.

***Pseudanthias hangapiko* Shepherd, Pinheiro, Phelps, Pérez-Matus, & Rocha, 2021**

**Holotype:** CAS 247252, 45.2 mm SL, male.

**Type locality:** Hanga Piko, Rapa Nui (Easter Island), Chile (27°9'12" S, 109°26'52" W), depth 83 meters.

**Illustrations:** Shepherd, Pinheiro, Phelps, Pérez-Matus, & Rocha, 2021, figs. 1–3.

**Counts:** D: X, 17. A: III, 8. P: 16 or 17. C: 17 (9 + 8). V: 26 (10+ 16). S: 2. GR: 33 or 34 (11 + 22 or 23). LL: 40 to 43. CP: 16 or 17.

**Distribution:** known only from the type locality, off Hanga Piko, Rapa Nui (Easter Island).

***Pseudanthias paralourgus* Gill, Pogonoski, Johnson, & Tea, 2021**

**Holotype:** QM I.38668, 134.0 mm SL, male.

**Type locality:** Australia, Queensland, off Cape Moreton (27°03' S, 153°33' E), depth 110 to 114 meters.

**Illustration:** Gill, Pogonoski, Johnson, & Tea, 2021, fig. 2.

**Counts:** D: X, 16. A: III, 7. P: 18 to 20. C: 17 (9 + 8). V: 26 (10+ 16). S: 3. GR: 36 to 39 (10–12 + 26 or 27). LL: 40 to 44. CP: 26 to 28.

**Distribution:** South Pacific, off southeast Queensland, Australia.

***Pseudanthias pillai* Heemstra & Akhilesh, 2012**

*Pseudanthias vizagensis* Krishna, Rao, & Venu, 2017

**Holotype:** SAIAB 86517, 119 mm SL, male.

**Type locality:** off Chavakkadu, Kerala, India (10°30' N, 75°24' E), depth 150 to 200 meters. **Illustration:** Heemstra & Akhilesh, 2012:153, fig. 40.

**Counts:** D: X, 16. A: III, 7. P: 19. C: 15. V: 26 (10 + 16). S: 3. GR: 29 (11 + 28). LL: 36 to 38. CP: 20 to 22.

**Distribution:** Indian Ocean off southwestern coast of India.

***Pseudanthias timanoa* Victor, Teitelbaum, & Randall, 2020**

Reassigned to the new genus *Pyronotoanthias* by Gill, 2022.

***Pseudanthias vizagensis* Krishna, Rao, & Venu, 2017**

A junior synonym of *Pseudanthias pillai* Heemstra & Akhilesh, 2012. See account for that species from Anderson, 2018 (above).

**Syntypes:** 44, 93–97 mm SL.

**Type locality:** off Visakhapatnam, Andhra Pradesh, India, depth 180 meters.

**Illustrations:** Krishna, Rao, & Venu, 2017:215, figs. 1 & 2.

**Counts:** D: X, 16 or 17. A: III, 7. P: 17. C: 15. V: 26 (10 + 16). GR: 39 or 40 (11 + 28 or 29). LL: 44 or 45.

**Distribution:** Indian Ocean: Bay of Bengal: east coast of India.

***Pseudanthias xanthomaculatus* (Fourmanoir & Rivaton, 1979)**

Reassigned to the genus *Odontanthias*; see *Odontanthias xanthomaculatus* (above)

## *Pyronotanthias* Gill, 2022

Type species *Anthias lori* Randall & Lubbock in Fourmanoir & Laboute (1976). Nine species, previously assigned to the subgenus *Mirolabrichthys* (genus *Pseudanthias*), are reassigned to this new genus. They are *Pseudanthias aurulentus* (Randall & McCosker), *P. bimarginatus* Randall, *P. flavoguttatus* (Katayama & Masuda), *P. lori* (Lubbock & Randall), *P. parvirostris* (Randall & Lubbock), *P. privitera* Randall & Pyle, *P. smithvanizi* (Randall & Lubbock), *P. timanoa* Victor, Teitelbaum, & Randall, and *P. unimarginatus* Randall.

### *Pyronotanthias timanoa* (Victor, Teitelbaum, & Randall, 2020)

*Pseudanthias timanoa* Victor, Teitelbaum, & Randall, 2020

**Holotype:** MNHN 2020-0175, 73.3 mm SL.

**Type locality:** New Caledonia, Grand Terre, Mbere Reef, -22.3526°, 166.2362°.

**Illustrations:** Victor, Teitelbaum, & Randall, 2020, figs. 1–8.

**Counts:** D: X, 15 or 16 (usually 16). A: III, 7. P: 18 or 19 (usually 19). C: 15 (8 + 7). GR: 9 to 11 + 24 to 27. LL: 48 to 54. CP: ca. 26.

**Distribution:** apparently endemic to the waters off New Caledonia.

## *Tosana* Smith & Pope, 1906

Type species: *Tosana niwae* Smith & Pope, 1906, by original designation (also monotypic). Three species.

### *Tosana dampieriensis* Gill, Pogonoski, Johnson, & Tea, 2021

**Holotype:** NMV A.29686-007, 46.2 mm SL.

**Type locality:** Australia, Western Australia, from 18°25.52' S, 120°05.92' E to 18°26.20' S, 120°06.50' E, depth 103 to 105 meters.

**Illustrations:** Gill, Pogonoski, Johnson, & Tea, 2021, figs. 9 & 10.

**Counts:** D: X, 14. A: III, 7. P: 16 or 17. C: 17 (9 + 8). V: 26 (10 + 16). S: 2. GR: 33 to 35 (10 + 23 to 25). LL: 36 to 39. CP: 24.

**Distribution:** known from the eastern Indian Ocean from specimens collected off Western Australia.

### *Tosana longipinnis* Gill, Pogonoski, Johnson, & Tea, 2021

**Holotype:** CSIRO H 7276-06, 88.4 mm SL.

**Type locality:** Australia, Queensland, Swains Reefs from 22°17.27' S, 153°17.70' E to 22°11.11' S, 153°13.47' E, depth 190 to 192 meters.

**Illustrations:** Gill, Pogonoski, Johnson, & Tea, 2021, figs. 6 & 7.

**Counts:** D: X, 13 or 14. A: III, 7. P: 15 to 17. C: 17 (9 + 8). V: 26 (10 + 16). S: 2. GR: 32 to 37 (8 to 11 + 22 to 26). LL: 33 to 41. CP: 21 to 26.

**Distribution:** known from the South Pacific, off the east coast of Australia in the western Coral Sea and the Tasman Sea (from about 18° S to 33° S).

### *Tosana niwae* Smith & Pope, 1906

*Anthias albofasciatus* Fowler & Bean, 1930

**Holotype:** USNM 55618, 83.3 mm SL, 110 mm TL.

**Type locality:** Urado Bay, Kochi Prefecture, Japan.

**Illustrations:** Katayama, 1960: pl. 19; Kuitert, 2004:85, bottom fig.; Gill, Anderson, & Williams, 2019: figs. 1–4.

**Counts:** D: X, 13 to 15 (usually X, 14). A: III, 6 or 7 (usually III, 7). P: 15 or 16 (usually 16). C: 15 (8 + 7). V: 26 (10 + 16). S: 2. GR: 34 to 37 (10 to 12 + 23 to 26). LL: 33 to 38. CP: 21 or 22.

**Distribution:** western Pacific; possibly also from the Persian Gulf off Bahrain (Randall, 1995:125, noted that Al-Baharna, 1986, reported this species in her *Fishes of Bahrain* without any information on locality or depth).



### ***Tosanoides* Kamohara, 1953**

Type species: *Tosanoides filamentosus* Kamohara, 1953, by original designation (also monotypic). Six species.

#### ***Tosanoides annepatrice* Pyle, Greene, Copus, & Randall, 2018**

**Holotype:** BPBM 40848, 53.0 mm SL, male.

**Type locality:** Republic of Palau, Kayangel State, Ngaruengl Atoll; 8.14733° N, 134.61763° E, depth 115 meters.

**Illustrations:** Pyle, Greene, Copus, & Randall, 2018:141–145, figs. 1–5.

**Counts:** D: X, 16 or 17. A: III, 8. P: 14. C: 14 (branched). V: 26 (10+ 16). GR: 33 or 34 (11 + 22 or 23). LL: 33 or 34.

**Distribution:** western Pacific: off Palau and Pohnpei.

#### ***Tosanoides aphrodite* Pinheiro, C. Rocha, & L. A. Rocha, 2018**

**Holotype:** CIUFES 3444, 56.8 mm SL, male.

**Type locality:** Saint Paul's Rocks, Brazil; 00°56' N, 29°22' W, depth 120 meters.

**Illustrations:** Pinheiro, C. Rocha, & L. A. Rocha, 2018, figs. 1–4.

**Counts:** D: X, 15 or 16. A: III, 9. P: 14 or 15. C: 13 (7 + 6) branched. V: 27 (10+ 17). GR: 30 (8 + 22). LL: 32 to 35.

**Distribution:** known only from the type locality, off Saint Paul's Rocks, Brazil.

#### ***Tosanoides bennetti* Allen & Walsh, 2019**

**Holotype:** QM I.40881, 48.1 mm SL, male.

**Type locality:** northwestern section of western part of Holmes Reefs, Coral Sea, Australia; 16°31.3' S, 147°49.0' E, depth 150 meters.

**Illustrations:** Allen & Walsh, 2019, figs. 1–4.

**Counts:** D: X, 17. A: III, 8. P: 12 to 14. C: 15. V: 26 (10 + 16). S: 3. GR: 31 to 36 (7 to 10 + 23 to 26). LL: 25 to 33 (mean 30). CP: 15 or 16.

**Distribution:** western South Pacific: Coral Sea at Holmes Reefs.

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