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Redescription of *Parapercis punctata* (Cuvier, 1829) and status of *Neosillago* Castelnau, 1875 and its type species *Neosillago marmorata* Castelnau, 1875 (Perciformes: Pinguipedidae)

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Abstract

The status of two doubtful fish species is reviewed. *Percis punctata* Cuvier, 1829 is confirmed to be a valid species of *Parapercis* Bleeker, 1863 and a senior synonym of *Parapercis guezei* Fourmanoir, 1966. A redescription of *Parapercis punctata* is provided, based on four specimens collected from the western Indian Ocean. Examination of the holotype of *Neosillago marmorata* Castelnau, 1875 revealed that *Neosillago* is a junior synonym of *Parapercis* and *N. marmorata* is a junior synonym of *Parapercis nebulosa* (Quoy & Gaimard, 1825).

Keywords: taxonomy, synonym, *Percis punctata*, *Neosillago*, *Neosillago marmorata*, *Parapercis*

Introduction

Cuvier in Cuvier and Valenciennes (1829) provided a brief description, mostly of coloration, of *Percis punctata* based on a single specimen collected from an unknown locality. This species was regarded as a doubtful species in *Parapercis* by Cantwell (1964: 245). Subsequently, Fourmanoir (1966) described *Parapercis guezei* based on two specimens collected from Cap La Houssaye, Réunion. Both species have rarely been mentioned, despite more than 20 publications on *Parapercis*, describing new species, dealing with nomenclature issues, checklists and regional guides in the past two decades (pers. obs.).

Randall (1984:41) and Randall and Francis (1993:210) recognized *P. guezei* as a junior synonym of *P. punctata*. However, neither of these publications included justification for the synonymy, or detailed information on the species in question. Up to the present, no valid diagnostic characters for *P. punctata* (or *P. guezei*) have been recorded, so the taxonomic uncertainty of these species has remained. For example, Sparks & Baldwin (2012:38) mentioned that it was impossible to determine whether *P. punctata* was valid. The author examined the holotype of *P. punctata*, two type specimens of *P. guezei* and one additional non-type specimen. This confirmed that *P. punctata* is a valid species of *Parapercis* and *P. guezei* is a junior synonym of *P. punctata*, as suggested by Randall (1984). A detailed description for *P. punctata* is provided based on the four specimens examined.

Castelnau (1875) described a new genus, *Neosillago*, and its type species *N. marmorata* based on a single specimen collected from Port Walcott, Western Australia (20°35'28"S, 117°10'55"E) by the Rev. Mr Bostock. Kaga (2013) briefly discussed the possible status of *Neosillago marmorata* and suggested its characters "well agree with percophid *Bembropinea*". According to the Eschmeyer (2013) the whereabouts of the holotype is unknown. While visiting the fish collection of the Muséum national d'Histoire naturelle in Paris, the author found a specimen labeled as holotype of *Neosillago marmorata*. This specimen is confirmed to be the primary type, described by Count F. de Castelnau in 1875. A discussion on status of the genus and the species is provided.

Methods and materials

Methods for taking measurements and counts generally follow Randall *et al.* (2008). The caudal fin is measured in two or three parts: (1) caudal-fin length 1, the length without prolongation; (2) caudal-fin length 2, the total length with prolongation on upper lobe; and (3) caudal-fin length 3, the total length with prolongation on lower lobe. Specimens examined are deposited at Muséum national d'Histoire naturelle (MNHN) and National Museum of Natural History, Smithsonian Institution (USNM).

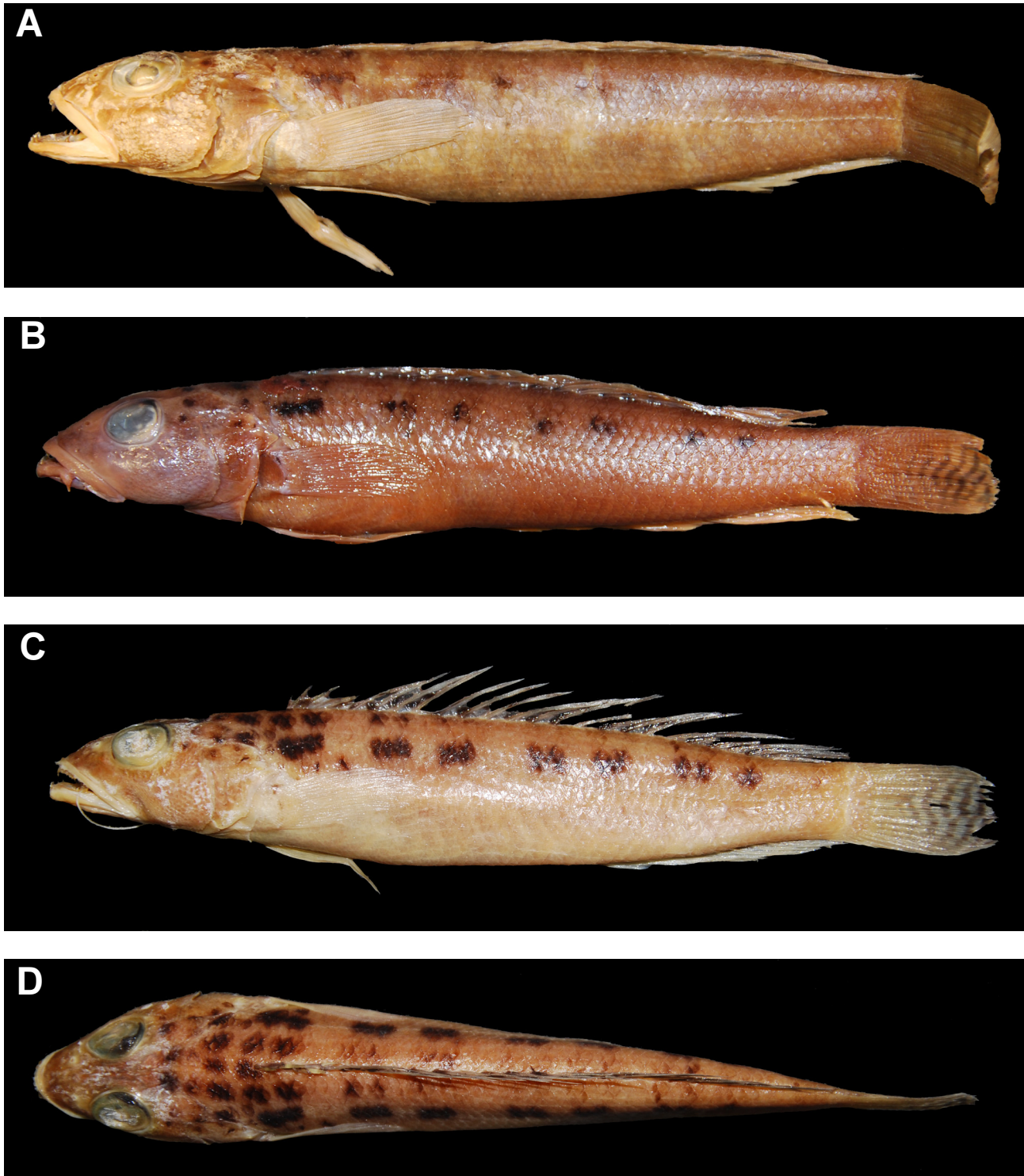


FIGURE 1. *Parapercis punctata* Cuvier, 1829, preserved. A. Holotype of *Percis punctata* Cuvier, 1829 (= *Parapercis punctata*), MNHN A-3116, 134.4 mm SL. B. Holotype of *Parapercis guezei* Fourmanoir, 1966, MNHN 1965-675, 131.7 mm SL. C-D. Non-type, MNHN 4097, 129.5 mm SL. C. Lateral view. D. Dorsal view.

Results

Parapercis punctata (Cuvier, 1829)

Figures 1A–D; Table 1

Percis punctata Cuvier in Cuvier & Valenciennes, 1829:264 (type locality unknown). Cantwell, 1964:245 (doubtful in *Parapercis*).

Parapercis guezeti Fourmanoir, 1966:218, fig. 2 (type locality: Cap La Houssaye, Réunion, western Mascarenes, southwestern Indian Ocean, 75 m).

Parapercis punctata (Cuvier, 1929): Randall, 1984:41 (mentioned, as senior synonym of *P. guezeti*). Randall & Francis, 1993:209 (mentioned, as senior synonym of *P. guezeti*). Fricke, 1999:465 (listed, senior synonym of *P. guezeti*).

Material examined. MNHN B-3106 (134.4 mm SL), holotype of *Percis punctata*, assumed collected from western Indian Ocean. MNHN 1965-675 (131.7 mm SL), holotype of *P. guezeti*, Reunion Island, 21°07'01"S, 55°34'59"E, 75 m, no date. MNHN 1965-676 (132.1 mm SL), paratype of *P. guezeti*, same data as MNHN 1965-675. MNHN 4097 (129.5 mm SL), non-type, Reunion Island, Apr. 1866.

Diagnosis. A species of *Parapercis* with a unequal color pattern of numerous black spots on dorsal surface of head and anterior portion of body, row of 8 black blotches laterally along upper body and irregular narrow bands on caudal fin, and a combination of the following characters: dorsal-fin rays V, 21; anal-fin rays I, 17; pectoral-fin rays 16 or 17; pored lateral-line scales 52 or 53; transverse scale rows 4.5/14–16; total gill rakers 14 or 15; circumpeduncular scales rows 25 or 26; 3 sensory pores above the maxilla and one large pore at front of chin; free margin of preoperculum strongly serrated; and a short prolongation on upper lobe of caudal fin.

Description. Following data are provided for holotype of *P. punctata*, followed by 3 other specimens in parentheses, if different. Selected morphometric data are provided in Table 1.

Dorsal-fin rays V, 21, the fourth spine longest; anal-fin rays I, 17; all dorsal and anal soft rays branched; pectoral-fin rays 16 or 17, branched except uppermost; principal caudal-fin rays 16 or 17. Pored lateral-line scales 52 (52 or 53), not including 3 (3 or 4) gradually smaller scales on caudal-fin base. Scale rows between origin of dorsal fin posteroventrally and lateral line 4.5; scales below lateral line posteroventrally to origin of anal fin 14 (14–16); median predorsal scales 8; circumpeduncular scale rows 25 (25 or 26). Rakers on outer side of first gill arch $5 + 10 = 15$ ($4-5 + 10 = 14-15$); pseudobranchial filaments 24 (24–27); branchiostegal rays 6.

Body elongated and stout, nearly cylindrical anteriorly and gradually compressed posteriorly; body depth 5.8 (4.9–5.4) times in SL, 1.8 (1.5–1.6) in HL; body width 5.1 (5.2–6.3) in SL, 1.6 (1.6–1.8) in HL; head relatively rounded, its length 3.3 (3.2–3.4) in SL; ventral part of head, chest and abdomen slightly convex; snout relatively short and pointed, its length 3.2 (3.1–3.4) in HL; eye relatively large, orbital diameter 3.7 (3.9–4.1) in HL; interorbital space flat, the least fleshy width 6.6 (6.8–8.5) in HL; caudal peduncle length 4.2 (3.5–4.1) in HL; caudal peduncle depth 3.2 (3.1–3.4) in HL.

Mouth large, maxilla nearly reaching a vertical at midpoint of eye, upper-jaw length 2.3 (2.3–2.4) in HL; mouth oblique, forming an angle of about 20° to horizontal axis of body; lower jaw extends slightly beyond upper jaw anteriorly. Upper jaw with outer row of 26 or 27 (21–24) conical teeth that curve medially and posteriorly, anterior 3 distinctly larger and the 2nd one especially large in all but holotype of *P. punctata*, followed by a small gap and then 8 (6–9) moderately large teeth, followed by 15 or 16 (12–14) slightly smaller, subequal teeth; broad band of villiform teeth medial to canines in about 8 (7 or 8) rows at front of upper jaw, gradually narrowing posteriorly to a narrow band in about 2 (1 or 2) irregular rows. Front of lower jaw with 3 pairs of recurved canine teeth, all about equal in size; band of about 5 (5 or 6) rows of villiform teeth medial to canines at front of lower jaw, medial row continuing laterally in jaw posterior to first few canines as row of 8 (7 or 8) increasingly larger and more strongly recurved teeth (last 3 or 4 of these distinctly enlarged), followed by a single row of small teeth to end of jaw. Vomer with 6 (5–7) stout conical teeth, forming a curved row; palatines without teeth. Lips smooth, their inner surface with large fleshy papillae that interdigitate with anterior teeth. Tongue broadly rounded, reaching forward to posterior vomerine teeth.

Gill membranes free from isthmus, with a broad transverse free fold. Gill rakers short and spinous, longest about 1/3 length of longest gill filaments. Nostrils small, anterior nostril tube-like, in front of center of eye (viewed from side), a little more than half way to groove at edge of upper lip, with a broadly pointed posterior flap that reaches the posterior nostril when laid back; posterior nostril dorsoposterior to anterior nostril, ovate with slight rim; internasal distance about 2 (1–2) times diameter of posterior nostril.

TABLE 1. Morphometric data for specimens of *Parapercis punctata* examined this study.

	Holotype of <i>P. punctata</i>	Holotype of <i>P. guezei</i>	Paratype of <i>P. guezei</i>	Non-type
	MNHN B-3106	MNHN 1965-675	MNHN 1965-676	MNHN 4097
SL (mm)	134.4	131.7	132.1	142.7
% SL				
Head length	30.6	29.3	31.5	29.6
Body depth	17.3	19.4	20.5	18.6
Body width	19.6	15.9	19.3	17.6
Snout length	9.5	9.0	9.3	9.5
Orbital diameter	8.3	7.1	7.8	7.6
Interorbital width	4.6	4.3	3.7	4.1
Upper-jaw length	13.1	12.6	13.2	12.7
Pre-dorsal length	31.0	28.7	29.7	29.5
Pre-pelvic length	27.8	25.4	30.1	26.3
Pre-anal length	49.1	47.2	51.0	47.0
Dorsal-fin base	61.0	61.4	61.5	61.9
1st dorsal-fin spine	2.3	3.1	2.0	2.3
2nd dorsal-fin spine	4.6	4.8	4.0	Broken
3rd dorsal-fin spine	6.6	7.2	7.0	6.7
4th dorsal-fin spine	7.7	7.0	7.2	Broken
5th dorsal-fin spine	7.4	5.2	5.9	6.1
Longest dorsal-fin ray	15.3	12.3	14.5	13.7
Anal-fin base	42.1	44.7	41.0	44.1
Anal-fin spine	3.5	4.1	3.7	4.8
Longest anal-fin ray	12.8	11.1	12.3	10.6
Pectoral-fin length	19.3	18.0	18.9	18.6
Pelvic-fin length	21.1	21.9	19.7	20.0
Pelvic-fin spine	6.8	8.4	8.1	6.2
Caudal-fin length 1	18.3	18.3	17.8	18.1
Caudal-fin length 2	21.1	Broken	24.2	Broken
Caudal peduncle length	7.4	8.4	7.7	8.4
Caudal peduncle depth	9.4	9.4	9.5	9.5

Pores of cephalic sensory system relatively few; row of 3 large pores above maxilla; 1 pore above and 1 below the posterior nostril; 2 pores on each side of space between posterior nostril to anterior interorbital space. Some pores connected by canals under the skin on posterior interorbital space and occiput; 1 branched series continuing to posteroventral margin of eye along the upper margin of cheek scales, 1 continuing to above the free margin of preopercle, and a third continuing to anterior end of lateral line on body. Row of 8 (8–10) pores along the free margin of preopercle, the lower pores may accompanied by 1 or 2 smaller pores, continuing forward to a series of 4 large pores on mandible. A single large pore at front of chin.

Opercle bearing a strong sharp spine, with a small blunt spine attached above, the latter entirely covered by skin, at about same level as ventral edge of pupil when viewed from the side. Free margin of subopercle variable, with a row of 10 or 11 close-set spines on upper portion and smooth or slightly serrated on the lower portion in the holotype of *P. punctata*, upper portion with 5–7 blunt spines loosely arranged along the entire margin in the holotype of *P. guezei*, smooth, except for 3 or 4 close-set spines, in the paratype of *P. guezei* and the non-type. Preopercle

broadly rounded, its free edge strongly serrated, with 10 (10–11) loosely-arranged blunt serrae extending from upper free end of posterior margin to slightly in front of vertical at posterior edge of orbit. Posterior free margin of interorbital slightly serrated or smooth.

Scales strongly ctenoid and imbricate in most parts of body; those on opercle large and ctenoid; on space anterior to pectoral fin base ctenoid; on pectoral fin base small and ctenoid; on nape anterior to a line from upper free end of gill opening to origin of dorsal fin cycloid; on cheek cycloid, larger posteriorly; on chest weakly ctenoid (cycloid in other specimens); on abdomen weakly ctenoid; on caudal fin progressively smaller and ctenoid, covering about 3/4 of the upper and lower lobes, 1/2 of the middle portion. No scales on dorsal, anal, or pelvic fins. Predorsal scales extending forward to, or slightly anterior to, a vertical from hind margin of preopercle. Lateral line broadly arched over pectoral fin, then gradually slanting to straight midlaterally on about posterior fourth of body.

Origin of dorsal fin over third to fourth lateral-line scale, predorsal length 3.2 (3.4–3.5) in SL, about equal to head length; 1st dorsal-fin spine short, 13.3 (9.4–12.8) in HL; 2nd dorsal-fin spine 6.6 (6.1–7.8) in HL; 3rd dorsal-fin spine 4.6 (4.1–4.5) in HL; 4th dorsal-fin spine longest, 4.0 (4.2–4.4) in HL; 5th dorsal-fin spine 4.2 (4.9–5.6) in HL, entirely attached to 1st soft ray by membrane; last soft dorsal-fin ray longest, 2.0 (2.2–2.4) in HL. Pectoral fins broadly rounded when spread, ninth or tenth ray longest, 5.3 (5.4–5.6) in SL, 1.5 (1.3–1.6) in HL. Origin of pelvic fins anterior to pectoral fin origin, below base of exposed part of opercular spine, prepelvic length 3.6 (3.3–3.9) in SL, 1.1 (1.0–1.2) in HL. Pelvic fin relatively short, reaching between anus to origin of anal fin, fourth pelvic-fin ray longest, 4.7 (4.6–5.1) in SL, 1.5 (1.3–1.6) in HL. Origin of anal fin below base of 4th dorsal soft ray, preanal length 2.0 (2.0–2.1) in SL; anal-fin spine 8.7 (6.1–8.5) in HL; penultimate anal soft ray longest, 2.4 (2.6–2.8) in HL. Caudal fin rounded, with a short prolongation on upper lobe (present on holotype of *P. punctata* and paratype of *P. guezei*, broken on other two specimens); caudal fin length without prolongation 5.5 (5.5–5.6) in SL, 1.7 (1.6–1.8) in HL, with prolongation 4.7 (4.1 in paratype of *P. guezei*, broken in two other specimens), 1.4 (1.3) in HL.

Coloration. Preserved specimen yellowish brown with many mid-sized black spots (up to 25) on dorsal surface of head and anterior body (somewhat faded in holotype of *P. punctata*), those on head and nape arranged in 3 or 4 regular rows. Small dots on upper pectoral-fin base (absent in paratype of *P. guezei*). A horizontal row of larger black spots, slightly smaller posteriorly, on upper half of sides, first above the pectoral fin base, follow by six arranged in 3 pairs, and one on caudal peduncle. Two rows on small black spots on dorsal fin, those on the lower row at the base of the fin associated with the fin rays, on the upper row at about middle of the fin, associated with the fin membranes. Most of supraorbital membrane black. Spinous dorsal fin blackish. About six narrow vertical bars at posterior 2/3 of caudal fin, the color gradually stronger posteriorly. Fresh color unknown.

Distribution. The locality of the holotype is unknown (recorded as western Indian Ocean in the MNHN database). The types of *P. guezei* and the non-type specimen were collected from off Réunion, the former from a depth of 75 m.



FIGURE 2. *Parapercis punctulata* (Cuiver, 1829), female, USNM 276016, 80 mm SL, off Aldabra, Seychelles, preserved. A. Lateral view. B. Dorsal view. Photo by S. Raredon.

Remarks. Some variations were observed among the four specimens examined. The black spots on the holotype of *P. punctata* were moderately faded. The spots on the head between the interorbital space and origin of the dorsal fin are generally arranged in 3 rows, but 4 rows in the non-type specimen. The holotype of *P. guezeti* and the non-type have a small spot on upper pectoral-fin base, which is absent in the paratype of *P. guezeti*. The holotype of *P. guezeti* has one additional small spot below the 2nd lateral mark and the paratype of *P. guezeti* has one below the interspace of 1st and 2nd lateral marks and 1 between 3rd and 4th lateral marks. The non-type has several additional smaller spots on the side of the head and above the pectoral fin. The holotype of *P. guezeti* and the non-type have 16 rows of scales between the lateral line and origin of the anal fin, but the other two specimens have 14 rows; the holotype of *P. punctata* has weakly ctenoid scales on the chest, whereas the other three specimens have all scales cycloid. The 2nd tooth on the outer row of the upper jaw is more strongly enlarged in specimens other than the holotype of *P. punctata*.

The free margin of the subopercle of the holotype of *P. punctata* has a row of 10 or 11 close-set spines on the upper portion and is smooth or slightly serrated on the lower portion, however there are 5–7 strong blunt spines loosely arranged along the entire margin in the holotype of *P. guezeti*, and it is smooth, except for 3 or 4 close-set spines, in the paratype of *P. guezeti* and the non-type. Without examining a larger series of specimens, it is difficult to evaluate that these difference can be attributed to individual variation or other possibility, such as sexual dimorphism.

Fricke (1999) mentioned there is another specimen (USNM 276016, 80 mm SL, Figs. 2A–B) collected from off Aldabra, Seychelles, at a depth of less than 10 m, however this specimen is identified here as *Parapercis punctulata* (Cuvier, 1829), based on a series of photos taken by staff in the collection (D. Smith, S. Raredon, pers. comm., 2013). Although *P. punctata* shares similar fin formulae and squamation with *P. punctulata*, it can be easily separated by the distribution and size of spots on body.



FIGURE 3. Holotype of *Neosillago marmorata* Castelnau, 1875 (= *Parapercis nebulosa*), MNHN A-3524, 111.3 mm SL, preserved.

Status of *Neosillago* Castelnau, 1875 and *N. marmorata* Castelnau, 1875

The holotype of *Neosillago marmorata* Castelnau, 1875 was found in the fish collection of Muséum national d'Histoire naturelle, Paris (MNHN A-3524, Fig. 3), together with many other specimens sent from Australia by Count F. de Castelnau who was Consul-General for France in Melbourne from 1863–1877. Castelnau was a prolific ichthyologist who published 10 papers on Australian fishes and described some 275 new species from Australia, including *N. marmorata* (Russell *et al.*, 2010; B. Russell, pers. comm., 2013).

The holotype specimen is partly damaged and is in poor condition. Selected data are provided in Table 2. Castelnau (1875) gave the size of the fish as “*little more than 5 inches*” which agrees with the size measured (126.5 mm [= 5 inches] total length, with the caudal fin partly broken). The locality (Port Walcott, Western Australia) is also confirmed on the label.

Castelnau (1875:16) defined *Neosillago* as: “*cleft of the mouth horizontal, with the lower jaw rather prominent; two dorsals, the first with five spines; ventrals rather in advance of the pectorals; palatine teeth; canines very long; preopercule entire; opercula with two strong spines; pectorals formed of simple rays; body elongate, covered with moderately small scales; snout elongate.*” He suggested that it is close to *Sillago*. However, all sillaginids have the pelvic-fin origin below or slightly behind the origin of pectoral fin, lower jaw slightly inferior and lacking enlarged canines (Kaga, 2013; pers. obs.). The other characters provided by Castelnau (1875) are non-diagnostic and can be assigned to many fish genera, except for some doubtful characters (see below).

TABLE 2. Morphometric and meristic data of holotype of *Neosillago marmorata* and non-type specimens of *Parapercis nebulosa*.

	<i>N. marmorata</i>	<i>P. nebulosa</i>
	MNHN A-3524	MNHN A-3104, MNHN 1981-57
SL (mm)	111.3	127.3–186.1 (n = 5)
% SL		
Head length	26.4	27.0 (25.2–28.5)
Body depth	13.5	17.9 (16.9–18.9)
Body width	14.4	18.1 (17.2–18.5)
Snout length	7.6	9.3 (8.9–9.7)
Orbital diameter	7.2	6.1 (5.2–6.7)
Interorbital width	–	5.0 (4.6–6.1)
Upper-jaw length	9.7	10.4 (9.5–11.9)
Pre-dorsal length	27.6	27.9 (27.0–28.5)
Pre-pelvic length	23.2	23.9 (21.6–25.9)
Pre-anal length	45.6	45.5 (43.9–48.3)
Dorsal-fin base	63.9	64.3 (60.7–66.6)
1st dorsal-fin spine	4.7	4.2 (3.5–5.3)
2nd dorsal-fin spine	6.8	5.2 (4.4–6.3)
3rd dorsal-fin spine	7.3	6.6 (5.7–8.1)
4th dorsal-fin spine	6.5	5.9 (4.8–7.5)
5th dorsal-fin spine	4.9	4.3 (3.6–4.9)
Longest dorsal-fin ray	–	11.7 (10.9–12.6)
Anal-fin base	44.7	46.2 (44.0–46.4)
Anal-fin spine	5.3	4.0 (2.9–5.1)
Longest anal-fin ray	–	10.3 (9.5–11.3)
Pectoral-fin length	–	19.9 (19.2–20.8)
Pelvic-fin length	20.2	20.5 (19.7–22.8)
Pelvic-fin spine	8.5	4.6 (2.9–7.6)
Caudal-fin length 1	–	14.7 (13.2–16.4)
Caudal-fin length 2	–	21.9 (19.1–27.6)
Caudal-fin length 3	–	20.7 (18.9–24.0)
Meristics		
Dorsal-fin rays	V, 21	V, 22
Anal-fin rays	I, 17	I, 18
Pectoral-fin rays	17/17	16 or 17
Pored lateral-line scales	ca. 69/70	69–76
Pre-dorsal scales	ca. 13	12 or 13
Scale rows above lateral-line	ca. 9.5	9.5–11.5
Scale rows below lateral-line	ca. 24	24–26
Circumpeduncular scales rows	36	34–38
Pseudobranchial filaments	ca. 23	23
Gill rakers	6 + 11 = 17	6–7 + 9–12 = 15–19

By combining both the definition of the genus and the description of the species provided by Castelnau (1875), the following characters place it in *Parapercis*: (1) 5 spines on first dorsal fin; (2) 21 rays on second dorsal fin (3) an external series of canines on upper jaw with the front teeth large and arched; (4) 6 very large arched canines in front, 3 on each side, of lower jaw; (5) teeth present on the vomer and palatines (but apparently a mistake, see below); (6) cheeks scaly; (7) second dorsal fin inserted near the first dorsal fin; and (8) ventral fin in front of the pectoral fin, below the spines of the operculae.

The following characters provided by Castelnau (1875) more specifically indicate the similarity of *Neosillago marmorata* to *Parapercis nebulosa* (Quoy & Gaimard, 1825): (1) caudal fin bilobed; (2) 75 scales on the lateral line (assuming he included those on the caudal-fin base); (3) 6 large obscure rounded blotches extending on each side of the lateral line; (4) spinous dorsal-fin membrane black; (5) teeth present on the vomer and palatines; (6) 6 canines in front of lower jaw; (7) 5 dorsal-fin spines and the fourth spine longest; and (8) all other fins are immaculate and white (in preservation).

On the other hand, some characters provided by Castelnau (1875) are problematic. He mentioned that the holotype has 2 spines on the opercle, but this is not strictly consistent with *Parapercis*. The holotype has one additional, smaller spine above the larger principal spine, but it is entirely covered by skin. This condition has also been observed in other congeners (pers. obs.). It is also very possible that Castelnau meant one opercular spine plus one subopercular spine, because the holotype has a strong blunt spine on the subopercle.

Castelnau (1875) also described his specimen as having 12 pectoral-fin rays (all simple), 21 dorsal-fin rays and 17 anal-fin rays. I counted 17 pectoral-fin rays (all but the uppermost ray branched), 21 rays in the dorsal fin and 1 spine plus 17 rays in the anal fin for the holotype. The status of simple rays in the pectoral fin is apparently a mistake, because all perch-like fishes (or fishes with similar appearance) usually possess branched rays, except for the uppermost 1 and/or the lowermost 1 or 2 rays (pers. obs.; G.D. Johnson, pers. comm., 2013). It is notable that the 21 dorsal-fin rays and 17 anal-fin rays are rare in *P. nebulosa*, but it still falls within the range of the species (see Cantwell, 1964: tables 2–3).

Castelnau (1875) stated that teeth were present on both vomer and palatine bones. However, species of *Parapercis* with teeth on the palatines have 23 or more dorsal-fin rays (rarely 22) and 20 or more total anal-fin elements (Cantwell, 1964; Randall, 1999), except for those species in *Parapercis cylindrica* complex (*sensu* Randall, 2003), which have a more short and compressed body, more pointed snout, 4–6 predorsal scales and a low lateral-line scale count (38–59 pored scales, not including those on caudal fin base). Thus, the presence of teeth on the palatine was apparently a mistake. Based on my examination, the holotype does not have teeth on palatines.

Castelnau (1875) also described “the head and the anterior half of the body are red and the posterior half of the latter white”. However, no pinguipedids has this coloration (i.e., different major coloration on anterior and posterior body), and I infer he meant that the head and the dorsal half of the body are red and ventral half of body white, which would be consistent for this group.

The caudal fin of the holotype of *N. marmorata* is broken and the shape of the fin cannot be determined. According to Castelnau (1875) *N. marmorata* possesses a bilobed caudal fin, which is not common in *Parapercis*, except for *Parapercis natator* Randall, Senou & Yoshino, 2008, *Parapercis schauinslandii* Steindachner, 1900 and *P. nebulosa*. Other congeners have either only one prolongation on the upper caudal lobe, or lack prolongation on both lobes of the caudal fin. The holotype of *N. marmorata* can be easily distinguished from *P. natator* and *P. schauinslandii* by having 69 or 70 pored lateral-line scales (not including smaller scales on caudal fin base, vs. 59–61 in *P. natator* and 56–58 in *P. schauinslandii*, data from Randall *et al.*, 2008).

Other information based on examination of the holotype of *N. marmorata* is: row of 5 conical teeth on vomer; anterior 8 teeth on outer row of upper jaw large and curved, first 2 distinctly largest; head pores not available; scales on cheek, nape, opercle and caudal fin lost; scales on chest weakly ctenoid, on space in front of pectoral-fin base ctenoid, on pectoral-fin base ctenoid, and on abdomen ctenoid.

In summary, morphology, morphometrics and meristics show that the holotype of *N. marmorata* closely matches *P. nebulosa* based on both the description provided by Castelnau (1875) and examination of the holotype. Hence, *Neosillago* Castelnau 1875 is proposed here as a junior synonym of *Parapercis* Bleeker, 1863, and *N. marmoratus* Castelnau 1875 is proposed as a junior synonym of *P. nebulosa* (Quoy & Gaimard 1825). Detailed morphometrics and meristic data of the holotype compared to those of *P. nebulosa* are provided in Table 2.

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References

- Cantwell, G.E. (1964) A revision of the genus *Parapercis*, family Mugiloididae. *Pacific Science*, 18, 239–280.
- Castelnau, F.L. (1875) Researches on the fishes of Australia. Philadelphia Centennial Expedition of 1876. *Intercolonial Exhibition Essays*, 1875–6 (2), 1–52.
- Cuvier, G. & Valenciennes, A. (1829) Histoire naturelle des poissons. Tome troisième. Suite du Livre troisième. Des percoïdes à dorsale unique à sept rayons branchiaux et à dents en velours ou en cardes. F.G. Levrault, Paris. *Histoire naturelle des poissons*, 3, 1–500.
- Eschmeyer, W.N. (Ed.) (2013) Genera, species references. Available from: <http://research.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (Accessed 3 September 2013)
- Fricke, R. (1999) *Fishes of the Mascarene Islands (Réunion, Mauritius, Rodriguez). An annotated checklist with descriptions of new species*. Koeltz Scientific Books, Koenigstein, pp. 1–759.
- Fourmanoir, P. (1966) Trois espèces nouvelles de poissons perciformes du Viet-Nam et de la Réunion. *Bulletin du Muséum National d'Histoire Naturelle (Série 2)*, 38 (3), 217–222.
- Kaga, K. (2013) Phylogenetic systematics of the family Sillaginidae (Percomorpha: order Perciformes). *Zootaxa*, 3642 (1), 1–105.
<http://dx.doi.org/10.11646/zootaxa.3642.1.1>
- Quoy, J.R.C. & Gaimard, J.P. (1825) Chapter IX. Description des Poissons. In: Freycinet, L. de (Ed.), *Voyage autour du Monde, fait par ordre du Roi, exécuté sur les corvettes de L. M. "L'Uranie" et "La Physicienne," pendant les années 1817, 1818, 1819 et 1820*. Pillet, Aine, Imprimerie royale, Paris, pp. 329–616.
- Randall, J.E. (1984) Two new Indo-Pacific mugiloidid fishes of the genus *Parapercis*. *Freshwater and Marine Aquarium*, 7 (12), 41–49.
- Randall, J.E. (2003) Review of the sandperches of the *Parapercis cylindrica* complex (Perciformes: Pinguipedidae), with description of two new species from the western Pacific. *Bishop Museum Occasional Papers*, 72, 1–19.
- Randall, J.E. & Francis, M.P. (1993) *Parapercis colemani*, a new pinguipedid fish from Norfolk Island, south-western Pacific Ocean. *New Zealand Journal of Marine and Freshwater Research*, 27 (2), 209–214.
<http://dx.doi.org/10.1080/00288330.1993.9516559>
- Randall, J.E., Senou, H. & Yoshino, T. (2008) Three new pinguipedid fishes of the genus *Parapercis* from Japan. *Bulletin of the National Museum of Nature and Science (Ser. A)*, Supplement 2, 69–84.
- Russell, B.C., Fraser, T.H. & Larson, H.K. (2010) Castelnau's collection of Singapore fishes described by Pieter Bleeker. *The Raffles Bulletin of Zoology*, 58 (1), 93–102.
- Steindachner, F. (1900) Fische aus dem Stillen Ocean. Ergebnisse einer Reise nach dem Pacific (Schauinsland, 1896–1897). *Anzeiger der Akademie der Wissenschaften in Wien*, 16, 174–178.
- Sparks, J.S. & Baldwin, Z.H. (2012) A new species of *Parapercis* (Teleostei: Pinguipedidae) from Madagascar. *Zootaxa*, 3204, 31–39.