

# New dextral flounder *Samariscus hexaradiatus* sp. nov. (Samaridae, Pleuronectiformes) from the Solomon Islands, South-West Pacific Ocean

by

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## Key words

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**Abstract.** – A new right eyed flounder, *Samariscus hexaradiatus*, is described on the basis of two specimens collected from the Solomon Islands, southwestern Pacific Ocean, at depths of 135–325 m. The new species is distinguished from other species of the genus by the following characters: 6 pectoral-fin rays; 82 dorsal-fin rays and 60–62 anal-fin rays; 9 abdominal vertebrae and 32 caudal vertebrae; presence of ctenoid scales on the interorbital space and high number (74–75) of lateral-line scales. Ocular side of body light brown with four and three distinguishable horseshoe-shaped spots along margins of both dorsal and ventral profiles, respectively. Two indistinct dusky blotches on the lateral line, one situated before the distal end part of the pectoral fin when flattened posteriorly, the other placed near the last one-third of the body length. Two distinct black spots placed on the upper and lower margins of the caudal peduncle at the posterior end of the dorsal and anal fins, respectively. Pectoral fin with dark pigmentation. Dorsal and anal fins dusky brown near the proximal and distal ends of the fin-rays, respectively, and with distinct series of small dusky spots on the medial parts the fin-rays.

**Résumé.** – Nouvelle espèce de poisson plat dextre, *Samariscus hexaradiatus* sp. nov. (Samaridae, Pleuronectiformes), des îles Salomon, au sud-ouest de l’océan Pacifique.

Une nouvelle espèce de poisson plat dextre, *Samariscus hexaradiatus*, est décrite sur la base de deux spécimens collectés aux îles Salomon, au sud-ouest de l’océan Pacifique, à des profondeurs allant de 135 à 325 m. Elle se distingue des autres espèces du même genre par les caractères suivants : 6 rayons à la nageoire pectorale; 82 rayons à la nageoire dorsale, 60–62 rayons à la nageoire anale; 9 et 32 vertèbres abdominales et caudales, respectivement; présence d’écailles cténoïdes dans l’espace interorbitaire et 74–75 écailles sur la ligne latérale. La face oculée du corps est brun clair avec quatre et trois taches distinctes en forme de fer à cheval le long des nageoires dorsale et ventrale, respectivement. Deux taches sombres indistinctes sont situées le long de la ligne latérale, l’une située en avant de l’extrémité de la nageoire pectorale lorsque celle-ci est rabattue postérieurement sur le corps, l’autre placée vers l’arrière, à mi-longueur du corps. Deux autres taches noires distinctes sont localisées sur les extrémités dorsales et ventrales du pédoncule caudal, juste après les nageoires dorsale et anale, respectivement. Les nageoires pectorales ont une pigmentation très foncée. Les rayons des nageoires dorsale et anale sont brun sombre sur les parties distales et proximales, et montrent des séries distinctes de petites taches sombres sur les parties médianes des rayons.

The dextral flatfish genus *Samariscus* Gilbert, 1905 (Pleuronectiformes; Samaridae *sensu* Cooper and Chapleau, 1998) is characterized by the combination of the following characters: four or five ocular-side pectoral rays, blind-side pectoral fin absent, branched middle caudal-fin rays, lateral line on blind side absent (Norman, 1931, 1934; Quéro *et al.*, 1989; Alfonso, 2001; Amaoka *et al.*, 1997; Kawai *et al.*, 2008, 2011). Nineteen nominal species distributed in tropical and subtropical regions of the Indo-Pacific (Kawai *et al.*, 2008) are currently included in the genus (*S. asanoi* Ochiai & Amaoka, 1962, *S. corallinus* Gilbert, 1905, *S. desoutterae* Quéro *et al.*, 1989, *S. filipectoralis* Shen, 1982, *S. huysmani* Weber, 1913, *S. inornatus* (Lloyd, 1909), *S. japonicus* Kamohara, 1936, *S. latus* Matsubara & Takamuki, 1951,

*S. leopardus* Voronina, 2009, *S. longimanus* Norman, 1927, *S. luzonesis* Fowler, 1934, *S. macrognathus* Fowler, 1934, *S. maculatus* (Günther, 1880), *S. multiradiatus* Kawai *et al.*, 2008, *S. neocaledonia* Kawai *et al.*, 2011, *S. nielseni* Quéro *et al.*, 1989, *S. sumieri* Weber & de Beaufort, 1929, *S. triocellatus* Woods, 1966 and *S. xenicus* Ochiai & Amaoka, 1962).

In 2001, two specimens of an undescribed species of the genus *Samariscus* were collected during the cruise “Salomon 1” from 23 September to 7 October 2001 in the Solomon archipelago (Principal Investigator Bertrand Richer de Forges). The cruise took place on board R/V *Alis* deployed from Nouméa by the Institut de Recherche pour le Développement (IRD). In this study, we describe this new species as *Samariscus hexaradiatus*.

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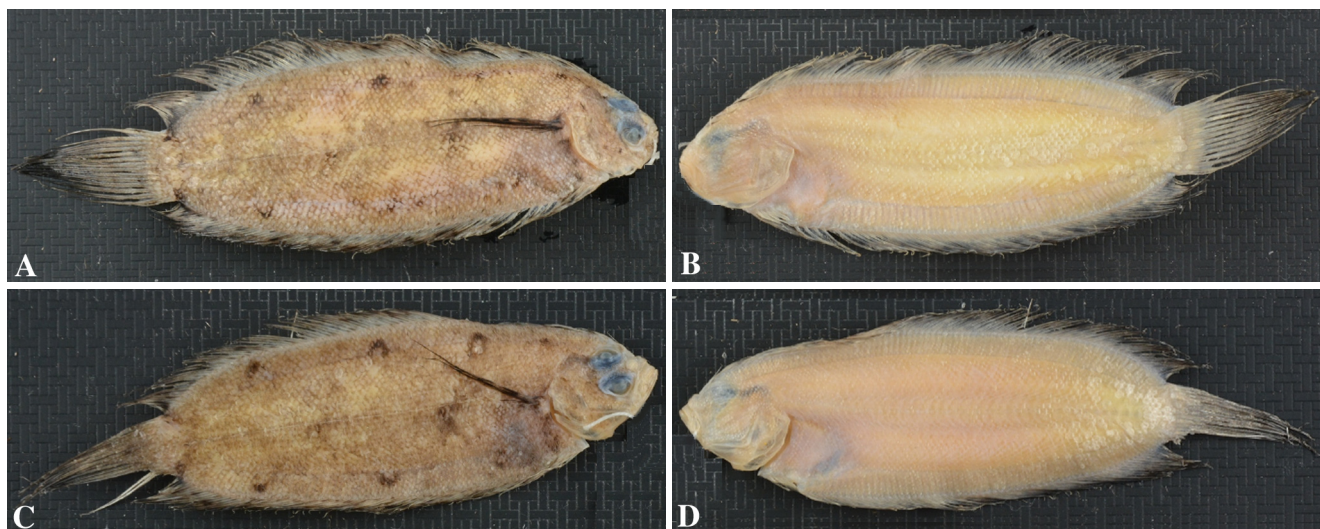


Figure 1. - *Samariscus hexaradiatus* n. sp. Ocular and blind sides. A, B: Holotype, MNHN 2002-3655, 100.3 mm SL. C, D: Paratype, MNHN 2002-3761, 80.9 mm SL.

Table I. - Comparison of morphometric and meristic characters for ten species of *Samariscus* from the Indo-Pacific and Pacific Ocean. Ratios expressed as proportion of standard length (SL) or head length (HL). BD, body depth; PecL, pectoral fin length; PelLO, pelvic fin length ocular side; PectLB, pectoral fin length blind side; CPD, caudal peduncle depth; SNL, snout length; UED, upper eye diameter; LED, lower eye diameter; IW, interorbital width; UJO, length of upper jaw ocular side; UJB, length of upper jaw blind side; LJO, length of lower jaw ocular side; LJB, length of lower jaw blind side; DO, dorsal-fin rays; AN, anal-fin rays; PE, pectoral-fin rays; LL, lateral line scales; GRO, gill-rakers on ocular side; GRB, gill-rakers on blind side; VEA, abdominal vertebrae; VEC, caudal vertebrae.

	<i>S. hexaradiatus</i>		<i>S. filipectoralis</i>	<i>S. huysmani</i> n = 15		<i>S. latus</i> n = 46		<i>S. macrognathus</i> n = 2		<i>S. multiradiatus</i>				
	Holotype	Paratype	Paratype	Range	$\bar{x}$	Range	$\bar{x}$	Range	$\bar{x}$	Holotype	Paratypes n = 5		Other specimens n = 5	
											Range	$\bar{x}$	Range	$\bar{x}$
Measurements														
SL (mm)	100.3	80.9	76.5	55.6-114.5		50.0-98.9		60.3-85.8		59.5	41.9-61.5		37.7-48.8	
HL (mm)	21.6	17.7	17.0	13.3-24.3		12.9-24.9		14.3-19.7		14.0	11.3-14.0		9.4-11.2	
In SL														
BD	3.2	2.9	2.2	(2.6-3.2)	2.9	(2.5-3.2)	2.8	(2.4-2.6)	2.5	2.8	(2.6-3.2)	2.9	(2.6-2.9)	2.7
HL	4.6	4.6	4.5	(3.6-4.8)	4.3	(3.6-4.6)	4.2	(4.2-4.4)	4.3	4.2	(4.0-4.6)	4.3	(4.0-4.5)	4.2
PecL	3.7	3.6	2.6	(3.0-4.9)	4.1	(1.6-3.9)	2.5	(2.3-3.2)	2.8	6.3	(3.2-5.7)	4.6	(3.4-4.6)	3.9
PelLO	5.1	6.3	8.4	(5.6-10.8)	8.9	(6.5-15.4)	9.4	(7.9-8.7)	8.3	6.9	(6.7-11.2)	9.5	(9.8-12.2)	10.8
PelLB	10.4	11.1	15.3	(11.0-18.7)	14.1	(10.9-21.5)	14.1	(12.1-13.0)	12.5	10.6	(9.5-27.6)	18.1	(11.3-18.8)	15.5
CPD	7.5	8.7	6.3	(7.4-8.8)	7.9	(6.6-8.9)	7.8	(6.7-7.6)	7.2	9.0	(8.6-9.8)	9.2	(8.8-9.4)	9.1
In HL														
SNL	5.4	5.2	5.9	(3.9-5.1)	4.5	(4.0-5.4)	4.7	(3.9-4.0)	3.9	4.4	(4.2-5.2)	4.6	(4.2-5.5)	4.9
UED	3.0	3.1	2.9	(2.7-3.3)	3.0	(2.6-3.6)	3.0	(3.4-3.4)	3.4	2.8	(2.4-3.0)	2.7	(2.4-3.0)	2.7
LED	2.9	3.0	3.4	(2.8-3.5)	3.1	(2.8-4.0)	3.2	(3.3-3.6)	3.4	2.6	(2.5-2.9)	2.6	(2.6-3.0)	2.8
IW	30.9	29.5	21.3	(17.3-42)	24.3	(14.6-46.4)	23.5	(17.9-17.9)	17.9	28.0	(26.4-38.3)	34.4	(20.2-28.0)	24.0
UJO	3.3	3.9	2.9	(2.6-3.4)	2.9	(2.8-3.9)	3.1	(2.1-2.2)	2.1	3.7	(3.4-3.8)	3.6	(3.2-3.5)	3.3
UJB	3.6	4.0	3.4	(2.9-3.8)	3.3	(3.0-4.0)	3.4	(2.3-2.5)	2.4	3.7	(3.8-4.1)	3.9	(3.6-4.5)	3.8
LJO	2.1	2.1	2.0	(1.8-2.2)	2.0	(1.9-2.2)	2.0	(1.6-1.6)	1.6	2.2	(2.1)	2.1	(2.1-2.2)	2.1
LJB	2.2	2.4	2.2	(2.0-2.5)	2.2	(2.1-2.4)	2.2	(1.77)	1.77	2.1	(2.2-2.3)	2.2	(2.1-2.3)	2.2
Counts														
DO	82	82	71	(75-80)	77.4	(66-74)	70.4	(71-73)	72.0	85	(86-88)	87.2	(85-89)	87.4
AN	60	62	53	(59-60)	59.5	(49-57)	54.4	(56-58)	57.0	70	(69-72)	70.4	(69-71)	69.8
PE	6	6	5	5	5	5	5	4	5	5	5	5	5	5
LL	74	75	66	(70-88)	75.7	(54-68)	61.9	78	78.0	66	(64-67)	66.0	(63-69)	65.7
GRO	0+5	0+6	0+8	(0+7-9)	7.6	(0+5-8)	6.9	(0+5-6)	5.5	0	0	0	0	0
GRB	0+3	0+5	0-7	(0+7-11)	8.8	(0+6-9)	7.2	(0+5-6)	5.5	0	0	0	0	0
VEA	9	9	9	10	10	10	10	9	9	9	9	9	9	9
VEC	32	32	29	29-31	29.3	29-30	29	29	29	34	(34-35)	34.4	(34-35)	34.2

Table I. Continued.

	<i>S. neocaledonia</i>		<i>S. nielseni</i> n = 1	<i>S. sunieri</i>				<i>S. triocellatus</i> n = 5	
	Holotype	Paratype		Syntypes n = 5		Other specimens n = 11			
				Range	$\bar{x}$	Range	$\bar{x}$	Range	$\bar{x}$
Measurements									
SL (mm)	50.0	34.6	79.7	60.2-98.9		49.1-95.8		33.9-62.7	
HL (mm)	11.8	8.0	22.0	15.2-23.4		11.6-21.9		9.1-13.5	
In SL									
BD	2.6	3.0	2.6	(2.9-3.4)	3.1	(2.6-3.2)	2.9	(2.6-3.1)	2.9
HL	4.2	4.3	3.6	(3.8-4.2)	4.0	(3.9-4.4)	4.2	(3.6-4.6)	4.0
PecL	2.5	3.4	2.7	(1.7-2.2)	2.0	(1.9-3.0)	2.4	(4.4-5.5)	5.1
PeILO	8.3	7.9	8.2	(5.8-8.8)	7.6	(6.1-10.6)	7.8	(6.6-9.3)	7.7
PeILB	10.9	16.0	14.0	(11.0-18.2)	14.8	(10.1-20.1)	14.2	(11.1-20.2)	15.5
CPD	7.5	9.1	7.6	(7.8-9.2)	8.8	(7.1-8.9)	7.9	(7.6-8.9)	8.1
In HL									
SNL	3.8	4.7	3.4	(3.2-4.8)	4.2	(4.3-5.0)	4.7	(3.3-3.6)	3.5
UED	3.4	2.8	4.3	(2.9-3.6)	3.2	(2.7-3.2)	3.0	(3.7-4.4)	4.1
LED	2.9	2.6	4.2	(3.0-3.5)	3.3	(2.7-3.4)	3.1	(3.8-4.4)	4.0
IW	29.5	20.0	16.9	(25.9-46.8)	38.4	(13.7-38.8)	25.6	(15.0-21.4)	17.7
UJO	3.3	3.1	2.7	(2.5-4.1)	3.0	(2.9-3.3)	3.1	(2.6-3.0)	2.8
UJB	3.7	3.3	2.7	(2.9-4.5)	3.3	(3.2-3.7)	3.4	(2.6-2.9)	2.8
LJO	1.9	1.8	2.2	(1.9-2.3)	2.2	(1.9-2.2)	2.0	(1.7-3.3)	2.1
LJB	2.0	2.0	2.2	(2.1-2.7)	2.5	(2.1-2.3)	2.2	(1.8-3.1)	2.1
Counts									
DO	81	77	70	(72-77)	75.0	(74-85)	81.0	(65-71)	68.0
AN	65	62	55	(55-62)	58.6	(61-66)	64.3	(51-57)	54.4
PE	5	5	4	(3-5)	4.0	(4-5)	4.1	4	
LL	61		73	(66-76)	69.2	(65-79)	70.6	79	
GRO	0	0	1+6	(0+5-8)	6.8	(0+5-7)	6.0	(0+0-5)	3.3
GRB	0	0	1+8	(0+6-8)	7.4	(0+5-8)	6.3	(0+0-6)	4.0
VEA	10	10	9			9		9	
VC	31	32	29			31		32	

**MATERIALS AND METHODS**

The two specimens examined are deposited in the fish collection of the Muséum national d’Histoire naturelle (MNHN), Paris.

Counts and measurements follow Hubbs and Lagler (1958), except for both upper and lower eye diameter that were measured considering the ball eye. Interorbital width has been measured between the soft margins of eyes. Upper jaw length was considered premaxilla and maxilla. Lower jaw length was taken considering dentary plus anguloarticular. The length of the rays of both pectoral and pelvic fin rays were measured from the base to the distal tip of the ray. Measurements given in the description are in % of standard length (SL), except for snout, eye diameter, orbital length, jaw length and interorbital width that are given in % of head length (HL). Those in the Table are given in times of either SL or HL. Measurements were taken with a dial calliper to the nearest 0.1 mm. Counts of vertebrae were made from radiographs, dorsal and anal fin rays were made manually and corroborated by radiographs. Institutional abbreviations follow Sabaj Pérez (2012).

***Samariscus hexaradiatus* n. sp.**

(Fig. 1, Tab. I)

*Holotype*. - MNHN 2002-3655, Solomon Islands, Pacific Ocean, 10°12’0’’S, 161°19’1’’E; 135-325 m, Salomon 1 cruise, Sta. cp1831; 5 Oct. 2001, 100.3 mm SL.

*Paratype*. - MNHN 2002-3761, Solomon Islands, Pacific Ocean, Salomon 1 cruise, Sta. cp1831; 5 Oct. 2001, 80.9 mm SL.

**Diagnosis**

A species of *Samariscus* with the following combination of characteristics: six pectoral- fin rays, 82 dorsal-fin rays, 60 to 62 anal-fin rays, 74 to 75 lateral-line scales, and 9 abdominal and 32 caudal vertebrae.

**Description**

Both measurements and meristics of the holotype are listed first, followed by those of the paratype placed within parentheses.

Head small, length 21.5 (21.9); body laterally compressed, elliptical, deepest near midpoint, depth 31.0 (34.4);

snout short, length 18.5 (19.2) in HL, smaller than eye diameters; upper eye diameter 33.3 (32.2); lower-eye diameter 34.2 (32.7); orbital length 35.2 (34.4); interorbital width 3.2 (3.4); upper-jaw length on ocular side 30.1 (25.4), on blind side 27.8 (24.8); lower-jaw length on ocular side 47.2 (46.9), on blind side 44.9 (41.8); caudal peduncle depth 13.3 (11.5); length of longest pectoral fin ray 26.9 (28.1); length of longest pelvic fin ray on ocular side 19.6 (15.9), on blind side 9.6 (9.0).

Dorsal-fin rays 82 (82); anal-fin rays 60 (62); ocular-side pectoral-fin rays 6 (6); pectoral fin absent on blind side; pelvic-fin rays 5 (5) on both ocular-side and blind-side fins; caudal-fin rays 16 (16); lateral-line scales 74 (75); abdominal vertebrae 9 (9), caudal vertebrae 32 (32); total vertebrae 41 (41).

Nostrils of blind side higher than those on ocular side. Both anterior nostrils with flap of skin covering the opening. Ocular-side anterior nostril tubular. The posterior nostril also tubular and placed ventrally relative to anterior nostril. Eyes dextral, separated by a narrow fully scaled bony ridge. Lower eye slightly anterior to upper eye. Ventral margin of upper eye and upper margin of lower eye covered with ctenoid scales. Mouth oblique. Ocular-side upper jaw reaching a vertical through anterior one-fourth of lower eye. Premaxillae and dentaries with three bands of viliform teeth (four in the dentary of the Paratype). Gill rakers on first branchial arch of both sides with rudimentary stout gill rakers on lower limb, 5 (6) on the ocular side and 3 (5) on the blind side. Ocular-side lateral line almost straight, curving slightly upward at half-length of pectoral fin. No lateral line on blind side. Small ctenoid scales on both sides of head and body, except for snout which is scaleless. Dorsal-fin origin on blind side of head, anterior to upper eye. Anal-fin origin just posterior to anus. Dorsal- and anal-fin rays unbranched. Pectoral fin on ocular side longer than head 1.25 (1.3) in HL, with all rays unbranched. Pectoral fin on blind side absent. Pelvic fins subsymmetrical, ocular-side fin 2.0 (1.8) longer than that on blind side. Length of ocular-side pelvic fin 0.9 (0.7) times in HL, length of blind-side pelvic fin 0.4 (0.4) times in HL. Origin of ocular-side fin slightly anterior to that of blind side. Blind-side pelvic-fin origin at level of second ray of ocular side pelvic fin. Dorsal, anal, pectoral, and pelvic fins scaleless. Caudal fin rounded with 16 rays with twelve medial rays branched and uppermost and lowermost two rays unbranched. Anus on midventral line. Cone-shaped urinary papilla on ocular side placed anterior to anal-fin origin.

#### Colour in alcohol

Ocular side of body light brown with four and three distinguishable horseshoe-shaped spots along margins of both dorsal and ventral profiles, respectively. With two ill-defined dusky blotches on lateral line, one situated under the last

one-third of the pectoral fin when flattened posteriorly, the other placed near the last one-third of the body. Two other darkly pigmented distinct spots on upper and lower margins of caudal peduncle just after the posterior end the unpaired fins. Pectoral fin darkly pigmented. Dorsal- and anal-fins rays dusky brown on their proximal and distal regions and with series of small dusky spots on the medial regions.

#### Distribution

Known only from the Solomon Islands, in the South-West Pacific Ocean, at depths of 135-325 m.

#### Etymology

The specific name refers to the six pectoral fin rays, derived from the Greek word hexa (meaning six) and Latin *radius* (rays).

#### Comparisons

The new species described herein *Samariscus hexaradiatus* is unique and easily distinguished from congeners in having six ocular-side pectoral fin rays. All other species of *Samariscus* have either four (*S. asanoi*, *S. corallinus*, *S. desoutterae*, *S. luzonensis*, *S. macrognathus*, *S. nielseni* and *S. xenicus*) or five pectoral-fin rays (*S. filipectoralis*, *S. huysmani*, *S. inornatus*, *S. japonicus*, *S. latus*, *S. leopardus*, *S. longimanus*, *S. maculatus*, *S. multiradiatus*, *S. neocaledonia*, *S. sunieri* and *S. triocellatus* (Norman, 1934; Matsubara and Takamuki, 1951; Quéro *et al.*, 1989; Alfonso, 2001; Kawai *et al.*, 2008, 2011; present study).

The number of dorsal fin rays (82) and anal fin rays (60-62) in *S. hexaradiatus* distinguishes this species from *S. asanoi* (71 and 54: Ochiai and Amaoka, 1962), *S. corallinus* (75-77 and 63-65: Gilbert, 1905), *S. filipectoralis* (71-77 and 53-58: Shen, 1982, Tab. I), *S. huysmani* (75-80 and 59-60: Tab. I), *S. inornatus* (61-70 and 48-53: Lloyd, 1909), *S. japonicus* (62-73 and 47-57: Kamohara, 1936), *S. latus* (66-74 and 49-57: Matsubara and Takamuki, 1951; Shen, 1982; Tab. I), *S. leopardus* (72 and 59: Voronina, 2009), *S. longimanus* (66-71 and 50-54: Norman, 1927), *S. luzonensis* (68 and 54: Fowler, 1934), *S. macrognathus* (71-73 and 56-58: Tab. I), *S. maculatus* (73 and 57: Günther, 1880), *S. multiradiatus* (85-89 and 69-72: Tab. I), *S. nielseni* (70 and 55-56: Quéro *et al.*, 1989, Tab. I), *S. sunieri* (72-85 and 55-66: Tab. I), *S. triocellatus* (65-71 and 51-57: Tab. I) and *S. xenicus* (62-70 and 46-53: Ochiai and Amaoka, 1962). Furthermore, the presence of ctenoid scales on the interorbital space and the higher number of lateral line scales distinguishes the new species from *S. neocaledonia* (Tab. I). In addition, 9 abdominal vertebrae in the new species is lower than 10 in *S. huysmani*, *S. latus*, *S. neocaledonia* (Tab. I) and *S. japonicus* (Kamohara, 1936; Shen, 1982), and 32 caudal vertebrae in the new species is higher than 28 in *S. inornatus* (Lloyd, 1909), 29 in *S. filipectoralis*, *S. nielseni*, *S. macro-*

*gnathus* (Tab. I), *S. japonicus* (Kawai et al., 2008), 29-31 in *S. huysmani* (Tab. I), 29-30 in *S. latus* (Tab. I) and 31 in *S. sunieri* and some specimens of *S. latus* (Tab. I). Although the new species here described has the same number of caudal vertebrae (32) than *S. triocellatus*, the latter could be easily distinguished from *S. hexaradiatus* n. sp. by the presence of three distinct round dark-brown-edged ocelli in a line along the middle of ocular side (Tab. I).

The present species, on the other hand, differs from other species of *Samariscus* in having longer both pelvic fins on ocular and blind sides. It resembles *S. filipectoralis* in having a short snout, but differs from the latter, *S. latus*, *S. macrog-nathus*, *S. neocaledonia*, *S. nielseni* and *S. unieri* in having a much shorter pectoral-fin length (Tab. I).

### Additional material examined

All measurements in standard length.

*Samariscus multiradiatus*. - Holotype: MNHN 2006-1758. New Caledonia. R/V *Vauban*, cruise MUSORSTOM 4, Stn. CP 213, 22°51'0"S, 167°12'0"E, 405-430 m depth, 28 Sep. 1985, beam trawl; male: 59.5 mm. Paratype: HUMZ 197930. New Caledonia (field tag ORS 225), R/V *Vauban*, cruise SMIB 1, Stn. DW 2, 22°51.90'S, 167°13.00'E, 415 m, 5 Feb. 1986, Waren dredge; male: 61.5 mm. Paratype: MNHN 1994-0817. New Caledonia. R/V *Vauban*, cruise MUSORSTOM 4, Stn. CP 213, 22°51'0"S, 167°12'0"E, 405-430 m depth, 28 Sep. 1985, beam trawl; male, 60.8 mm. Paratype: MNHN 1994-0826. New Caledonia. R/V *Coriolis*, cruise Chalcal 2, Stn. CP 26, 23°18'0"S, 168°3'0"E, 296 m depth, 31 Oct. 1986, beam trawl; male: 44.7 mm. Paratype: MNHN 2006-1759. New Caledonia (field tag BAT56.1), R/V *Alis*, cruise Bathus 4, Stn. DW 925, 18°54.85'S, 163°23.75'E, 370-405 m depth, 7 Aug. 1994, Waren dredge; female, 48.1 mm. Paratype: MNHN 2006-1760. New Caledonia (field tag ORS179), R/V *Vauban*, cruise SMIB 1, Stn. DW 2, 22°51.90'S, 167°13.00'E, 415 m, 5 Feb. 1986, Waren dredge; female, 41.9 mm. MNHN 2005-0010. New Caledonia. R/V *Vauban*, cruise Musorstom 4, Stn. Dw 181, 18° 57'0"S, 163°22'1"E, 355 m, 18 Sep. 1985, Waren dredge; 42 mm. MNHN 2005-0015. New Caledonia. R/V *Vauban*, cruise MUSORSTOM 4, Stn. Dw 212, 22°46'59"S, 167°10'1"E, 380 m, 28 Sep. 1985, Waren dredge; 4 spms (37.7-48.8 mm).

*Samariscus sunieri*. - Syntypes: ZMA 109317. Indonesia, Bali, Nicolaas Bay, Gier Expedition 24, Exp. 6, St 1187, 7 Sep. 1909, 108-162 m depth, trawl; 5 spms (60.2-98.9 mm). MNHN 2000-4423. Fiji Islands, Vanua balavu, N.O. *Alis*, Camp. Bordau 1, 1999, Stn CP 1429, 17°16'1"S, 179°1'1"E, 410 m, 1 Mar. 1999, beam trawl; 2 spms (49.1, 95.2 mm). MNHN 2000-4425. Fidji Islands, Vanua balavu, N.O. *Alis*, Camp Bordau 1, 1999, Stn CP 1445, 17°10'1"S, 178°40'59"E, 350 m, 3 Mar. 1999, beam trawl; 9 spms (57.3-87.2 mm). MNHN 2000-4428. Fidji Islands, Ride de lau, Yangasa, N.O. *Alis*, Camp Bordau 1, 1999, Stn CP 1501, 18°40'1"S, 178°30'0"E, 350 m, 12 Mar. 1999, beam trawl; 2 spms (72.9, 95.8 mm)

*Samariscus nielseni*. - MNHN 2006-0196. Salomon islands, 8°36'4"S, 157°23'2"E, 176 m, 6 Nov. 2004, beam trawl, 79.7 mm.

*Samariscus triocellatus*. - MNHN 2008-0088. Chesterfield Is. N.O. *Coriolis*, Camp Chalcal 1, Stn dc 7, 20°50'8"S, 161°36'9"E, 62 m, 14 Jul. 1984, Charcot dredge (drague Charcot), 33.9 mm. MNHN 2008-0089. New Caledonia, N.O. *Vauban*, Camp Lagon 1, St. dw 50, 22°40'8"S, 166°12'0"E, 12 m, 25 May 1984, Waren dredge, 38.3 mm. MNHN 2008-0090. New Caledonia, St. Vincent 22°1'1"S, 165°55'1"E, 8 m, 25 Mar. 1990, 40.5 mm. MNHN 2008-0093. New Caledonia. N.O. *Vauban*, St; 9, 22°46'5"S, 166°47'6"E, 10-12 m, 17 Jun. 1986, 62.7 mm. MNHN 2008-0095. New Caledonia, St. Vincent, 22°1'1"S, 165°55'1"E, 8 m, 25 Mar. 1990, 39 mm.

*Samariscus huysmani*. - MNHN 2005-3375. Vanuatu, N.O. *Alis*; Camp Boa 0, Stn CP 2327, 15°41'2"S, 167°2'49"E, 287-400 m, 17 Nov. 2004, beam trawl, 3 spms (87-114.5 mm). MNHN 2005-3377. Vanuatu, N.O. *Alis*; Camp Boa 0 St. cp 2326, 15°40'59"S, 167°1'59"E, 260-313 m, 18 Nov. 2004, beam trawl, 3 spms (89.8-101.7 mm). MNHN 2005-3380. Vanuatu, N.O. *Alis*; Camp Boa 0 St. cp 2326, 15°40'59"S, 167°1'59" E, 260-313 m, 18 Nov. 2004, beam trawl, 83.3 mm. MNHN 2009-1562. Vanuatu, Santo, N.O. *Alis*; Camp Santo 06, St. at1, 15°33'47"S, 167°19'30"E, 167-367 m, 14 Sep. 2006, beam trawl, 6 spms (55.6-81.5 mm). ZMA 109325. Topotype. Indonesia, Java, Gierexpeditie 4, Experiment 19, 6°26'S, 112°41'E, 14 Dec. 1907, 93.5 mm.

*Samariscus latus*. - MNHN 2002-1981. Philippines, N.O. *Coriolis*; Camp Musorstom 3, St. cp143, 11°42'4"S, 121°45'11"E, 205-214 m, Jun. 1985, Beam trawl, 77.5 mm. MNHN 2004-1980. Philippines, N.O. *Coriolis*; Camp Musorstom 3, St. cp88, 14°0'4"S, 120°17'2"E, 183-187 m, 31 May 1985, beam trawl, 74.9 mm. MNHN 2004-1981, Philippines, N.O. *Coriolis*; Camp. Musorstom 3, St. cp87, 14°0'7"S, 120°19'5"E, 191-197 m, 31 May 1985, 64 mm. MNHN 2004-1982, Philippines, Luzon Is., N.O. *Coriolis*; Camp. Musorstom 3, St. cp108, 14°1'1"S, 120°17'10"E, 188-195 m, 2 Jun. 1985, beam trawl, 3 spms (58.4-83.6 mm). MNHN 2004-1983. Philippines, N.O. *Coriolis*; Camp. Musorstom 3, St. cp145, 11°12'0"S, 124°2'24"E, 246 m, 7 Jun. 1985, beam trawl, 2 spms (92.7, 96.3 mm). MNHN 2004-1984. Philippines, N.O. *Coriolis*; Camp. Musorstom 3, St. cp100, 14°0'0"S, 120°10'48"E, 199 m, 1 Jun. 1985, beam trawl, 2 spms (72.2, 92.1 mm). MNHN 2004-1986. Philippines, N.O. *Coriolis*; Camp. Musorstom 3, St. cp112, 14°0'0"S, 120°11'24"E, 199 m, 2 Jun. 1985, beam trawl, 88.8 mm. MNHN 2004-1988. Philippines, N.O. *Coriolis*; Camp. Musorstom 3, St. cp119, 12°0'0"S, 121°7'48"E, 337 m, 3 Jun. 1985, beam trawl, 95.3 mm. MNHN 2004-1990. Philippines, Lubang Is., N.O. *Coriolis*; Camp. Musorstom 3, St. cp97, 14°0'7"S, 120°18'7"E, 189-194 m, 1 Jun. 1985, beam trawl, 2 spms (83.5, 89.6 mm). MNHN 2004-1991. Philippines, N.O. *Coriolis*; Camp. Musorstom 3, St. cp99, 14°6'0"S, 120°11'24"E, 204 m, 1 Jun. 1985, beam trawl, 15 spms (50.0-84.8 mm). MNHN 2004-1992. Philippines, N.O. *Coriolis*; Camp. Musorstom 3, St. cp98, 14°0'0"S, 120°10'48"E, 205 m, 1 Jun. 1985, beam trawl, 2 spms (68.0, 90.5 mm). MNHN 2004-1993. Philippines, N.O. *Coriolis*; Camp. Musorstom 3, St. cp109,

14°0'0" S, 120°16'59"E, 190-198 m, 2 Jun. 1985, beam trawl, 3 specimens (83.5-98.9 mm). MNHN 2004-1994. Philippines, N.O. *Coriolis*; Camp. Musorstom 3, St. cp101, 14°0'0"S, 120°11'24"E, 196 m, 1 Jun. 1985, beam trawl, 2 spms (73.5, 98.5 mm). MNHN 2004-1995. Philippines, N.O. *Coriolis*; Camp. Musorstom 3, St. cp111, 12°0'0"S, 120°10'12"E, 205 m, 2 Jun. 1985, beam trawl, 86.3 mm.

*Samariscus macrognathus*. - MNHN 2006-0195. Salomon Is., N.O. *Alis*; Camp Salomon 2, St. cp2283, 8°36'4"S, 157°23'2"E, 176 m, 6 1, 25 Dec. 1993, 50 mm. Paratype: HUMZ 212428. New Caledonia, 19°3.67'S, 168°28.05'E, 258 m, beam trawl, 8 Aug. 1994, 34.6 mm.

*Samariscus filipectoralis*. - Paratype: NTUM 05337. Tung-Kang, Pingtung, 26 Oct. 1978. 76.5 mm.

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