

NEW AUSTRALIAN FISHES. PART 13.
TWO NEW SPECIES OF PLATYCEPHALIDAE

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Abstract

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Two new species of Platycephalidae from Australian waters are described: *Platycephalus aurimaculatus* sp. nov., a species of the subgenus *Neoplatycephalus* Castelnau which lacks a swim bladder and has more than 80 pored scales in the lateral line; and *Rogadius patriciae*, which lacks an antrorse preopercular spine and has 12 soft dorsal fin rays.

Introduction

There are about 36 described species of flatheads (Platycephalidae) in Australian waters and others awaiting description. The two brief descriptions given here will be expanded upon in future publications of the family.

Platycephalus Bloch

Platycephalus Bloch, 1795: 96 (type species *Platycephalus spathula* Bloch = *Callionymus indicus* Linnaeus by original designation).

Neoplatycephalus Castelnau, 1872: 87 (type species *Neoplatycephalus grandis* Castelnau by original designation).

Platycephalus (*Neoplatycephalus*)
aurimaculatus sp. nov.

Platycephalus sp. Last et al., 1983: 334-335, fig. 28.23.

Material examined. Holotype: Tas. Bass Strait, east of King Island (39°56.41'S, 144°48.054'E), 49 m, trawled, RV "Hai-Kung", 3 Feb 1981, NMV (Museum of Victoria) A1404 (290 mm SL).

Paratypes: Vic. Bass Strait, off Cape Otway (39°06.5'S, 143°31.432'E), 83 m, trawled, FRV "Hai-Kung", 31 Jan 1981, AMS (Australian Museum, Sydney) I.26328-001, formerly NMV A1389 (333 mm SL) Port Phillip Bay, about 3.2 km W. of Sandringham (37°57'S, 145°E.), 30 Mar 1971, NMV A3733 (232 and 215 mm SL) Bass Strait, trawled, RV "Hai-Kung", Feb 1981, USNM (U.S. National Museum of Natural History) 280181 (318 mm SL).

Platycephalus conatus: Western Australia, off Point Culver, AMS I.18710-007 (160 and 174 mm SL). South Australia, Investigator Strait, AMS I.12393-94 (224 and 234 mm SL).

Platycephalus richardsoni: Victoria, Lakes Entrance, AMS 1B.21166 (245 mm SL). Tasmania, Wineglass Bay, AMS I.B507 (440 mm SL).

Diagnosis. *Platycephalus* with enlarged canine teeth on the palatine, dentary, vomer and premaxillary symphysis. More than 80 pored scales in the lateral line, a gill raker count of 1 + 5-7 and lacking a swim bladder.

Description. Dorsal fin rays usually I, VII, I, 14; anal fin rays 14; pectoral fin rays 18-20 (20 in holotype); branched caudal fin rays 12. Pored scales in the lateral line 81-85 (84); number of oblique scale rows slanting backward above the lateral line 88-100 (91); scale pores elongate with a single tube to the exterior. Iris lappet of eye a simple lobe; greatest diameter of orbit about half of snout length. Interopercular flap and swim bladder lacking. Attains a length of at least 550 mm (Last et al., 1983: 335).

Body light grey or brown; dorsal surface of head and back covered with small golden spots; larger gold to orange spots on pelvic and caudal fins; pectoral fin dusky with dark bands on upper half.

Distribution. Bass Strait and South Australia, 49-90 m.

Etymology. From the latin *aureus* (golden) and *macula* (spot), referring to the distinctive golden spots on the body and fins.

Remarks. *Platycephalus aurimaculatus*, *P. richardsoni* Castelnau and *P. conatus* Waite & McCulloch constitute the subgenus *Neoplatycephalus* and are separated from all other species of *Platycephalidae* by the presence of large canine teeth. Characters separating the three species are given in Table 1.

Rogadius Jordan & Richardson

Rogadius Jordan & Richardson, 1908: 630 (type species *Platycephalus asper* Cuvier by original designation).

Rogadius patriciae sp. nov.

Suggrundus sp. 2 Gloerfelt-Tarp et al., 1984: 125, fig.—Sainsbury et al., 1984: 120, fig.

Material examined. Holotype: Western Australia, North-West Shelf. (20°03'-04'S, 116°09'-10'E), 64 m, trawled, RV "Soela" (stn 36), 4 Dec 1979, AMS 1.26330-001, (160 mm SL).

Paratypes: Type locality, USNM 280182 (158 mm SL). North-West Shelf (19°14'S, 118°22'E), 88-90 m, trawled, RV "Courageous", 27 May 1978, WAM (Western Australian Museum) P26212-004 (179 mm SL).

Rogadius asper: Hong Kong, off Lema Island, CAS (California Academy of Sciences) 60896 (3, 91-106 mm SL) China, near Swatow, CAS 29058 (101 mm SL).

Rogadius pristiger: Northern Territory, Arafura Sea, (109 and 120 mm SL), Philippines, Mindanao, Nasipit, CAS 29411 (7, 59-122 mm SL).

Rogadius serratus: Indonesia, Lombok, Tanjung Luar, BPBM (Bernice P. Bishop Museum) 30022 (3, 137-153 mm SL).

Diagnosis. Vomerine teeth in 2 separate patches; dorsal soft rays 12; iris lappet bilobed; interopercular flap absent. Number of oblique scale rows

slanting backward above the lateral line about equal to number of pored scales; pored scales about 52, anteriormost 1-15 bearing small spine; scale pores short, with 2 tubes to exterior. Suborbital and infraorbital ridges with fine serrations; preorbital spine lacking; antorbital margin bearing 5-10 denticulations; single stout preopercular spine; usually 3 preopercular spines, antrorse spine lacking. Gill rakers 1/5-7, usually 6.

Description. Dorsal fin rays 1X-12; anal fin rays 11; pectoral fin rays 21-23 (22 in holotype); branched caudal fin rays 11-12 (12). Pored scales in lateral line 51-53 (53), the anteriormost 7-9 (9) scales bearing small spines; greatest diameter of orbit 1.2-1.4 (1.2) times in snout length; upper preopercular spine somewhat flattened, about 3 times longer than next. Attains at least 191 mm SL.

Body brown above, venter white anteriorly with dark streaking posteriorly; pelvic fins black with outer edge and ray tips white; pectoral fin rays bearing numerous small brown spots on upper part of fin, lower part black except lowest 3 rays which are white; spinous dorsal fin with black marginal band; soft dorsal fin with small black spots on rays; anal fin whitish with dark basal band becoming black posteriorly; caudal fin white with 4 or 5 dark blotches on upper edge and 2 or 3 elongate black bars posteriorly.

Distribution. Western Australia, North-West Shelf, 65-100 m.

Etymology. Named in honour of Patricia J. Kailola in recognition of her many contributions to the knowledge of the fishes of north-western Australia and southern Indonesia.

Table 1. Comparison of the three species of *Platycephalus* (*Neoplatycephalus*)

Character	<i>P. conatus</i>	<i>P. richardsoni</i>	<i>P. aurimaculatus</i>
Pored lateral line scales	72-78	64-74	81-85
Oblique scale rows	76-83	82-85	88-100
Gill raker count	1-2+7-9	3+10-12	1+5-7
Swim bladder	Present	Present	Absent

Remarks. Four species are here provisionally assigned to the genus *Rogadius* Jordan & Richardson. *Rogadius patriciae* sp. nov. is separated from *R. pristiger* (Cuvier, 1829) and *R. asper* (Cuvier, 1829) by lacking an antrorse preopercular spine. It is separated from *R. serratus* (Cuvier, 1829) by having 12 rather than 11 soft dorsal fin rays.

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