

NEW AUSTRALIAN FISHES. PART 9.
A NEW SPECIES OF *KATHETOSTOMA* (URANOSCOPIDAE).

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Abstract

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A new species of stargazer, *Kathetostoma canaster*, is described from the southern coast of Australia. It has been confused with the sympatric *K. laevis* and the New Zealand *K. giganteum*, but differs from both in details of colour pattern and meristic values.

Introduction

Scott (1974, 1980) recorded *Kathetostoma giganteum* Haast, 1873, until then regarded as a strictly New Zealand stargazer, from Tasmanian waters. A comparison of southern Australian specimens which match Scott's accounts with examples of *K. giganteum* from New Zealand indicates that the populations inhabiting the two countries are not conspecific. A description of this new Australian species is presented below, bringing the number of Australian representatives of the genus to three. All are Australian endemics. This treatment stems from an ongoing study of temperate Australasian taxa of the family Uranoscopidae. Type specimens are deposited in the Australian Museum, Sydney (AMS), CSIRO Division of Fisheries Research, Hobart (CSIRO) and Museum of Victoria, Melbourne (NMV).

Kathetostoma

Kathetostoma Günther, 1860: 274.

Type species. Uranoscopus laevis Bloch & Schneider, 1801 (by monotypy.)

Discussion. Although Australasian representatives of this genus have been considerably confused in the literature (see Mees, 1960: 55), the species are distinctive and can be diagnosed. Variable characters include numbers of rays in the dorsal and anal fins, configuration of the bony

ornamentation on the head, colouration, and relative proportions of the body, such as eye size, length of teeth, body width and body length. Members of the genus are confined to subtropical and temperate waters.

***Kathetostoma canaster* sp. nov.**

Figure 1

Kathetostoma sp. Last et al., 1983: 423, fig. 30.92.

Material examined. Holotype: Victoria, Bass Strait, south-east of Cape Conran (37°55.27'-55.43'S, 149°10.32'-15.05'S), 114-119 m (62.5-65 fms), FRV "Hai Kung", BSS-T-147, M. Gomon et al., 9 Feb 1981, NMV A1594 (166 mm SL).

Paratypes: Victoria. Bass Strait, off Lakes Entrance, Danish seine trawl, R. Slack-Smith, NMV A217 (185 mm SL).

Tasmania. Bass Strait, south of Flinders Island (40°43.79'-43.82'S, 148°32.68'-34.41'E), 54.9-58.6 m, FRV "Hai Kung", BSS-T-139, M. Gomon et al., 7 Feb 1981, NMV A1550 (154 mm SL); south-south-east of Flinders Island (40°48.85'-43.38'S, 148°37.46'-38.55'E), 69.5 m, FRV "Hai Kung", BSS-T-140, M. Gomon et al., 7 Feb 1981, NMV A1563 (2 specs., 150-156 mm SL); off south-eastern tip of King Island (40°00.00'-59.98'S, 144°20.90'-23.64'E), 46-48 m (25-26 fms), FRV "Hai Kung", BSS-T-127, M. Gomon et al., 2 Feb 1981, NMV A1401 (215 mm SL); off north-west tip of Tasmania (40°48.31'-49.71'S, 144°17.06'-14.38'E), 99-102 m (54-56 fms), FRV "Hai Kung", BSS-T-125, M. Gomon et al., 2 Feb 1981, NMV A1400 (186 mm SL); off north-west tip of Tasmania, (40°32'S, 145°23'E), 44 m (24 fms), FRV "Sarda", BSS-T-116, M. Gomon et al., 4 Nov 1980, NMV A1222 (165 mm SL); east of Hippolytes Island, AMS I.21304-001 (2 specs., 111-195 mm SL); Storm Bay, 85 m, J. Koerbin, 16 Aug 1981, CSIRO H654-01 (165 mm SL); same locality, 30 m, CSIRO



Figure 1. *Kathetostoma canaster* sp. nov., paratype, Tasmania, East of Hippolytes Island, AMS I.21304-001, 195 mm SL.

11655-01 (102 mm SL).

South Australia, south-west of Beachport (37°51'-45'S, 139°48'-39'E), 370-400 m, FV "Halcyon", MFG 109, collected by R. Wilson et al., 24 Oct 1981, NMV A2166 (2 specs., 121-128 mm SL); south-west of Beachport (37°42'-45'S, 139°42'-38'E), 380-420 m, FV "Halcyon", MFG 107, R. Wilson et al., 23 Oct 1981, NMV A2153 (2 specs., 201-255 mm SL); Great Australian Bight, 640-823 m, FRV "Endeavour", AMS E.3354 (158 mm SL).

Description. Dorsal-fin rays 16-18 (17 in holotype); anal-fin rays 15-16 (16 in holotype); pectoral-fin rays 19-21 (19 in holotype); vertebrae 31-33 (32 in holotype). Body of moderate length; greatest head width 35.3-39.3 (36.1 in holotype) % SL; head length 27.2-30.1 (30.1 in holotype) %. Unossified space between orbits moderately broad, 42.0-59.1 (51.8 in holotype) % interorbital distance; lateral edges of space usually parallel, posterior edge straight to slightly concave. Eyes moderately small, 17.7-23.8 (17.7 in holotype) % head length. Ossified dorsal surface of head with very low, fine, radiating ridges in juveniles, ridges nearly indistinct in adults; posterior edge of dorsal bony surface usually slightly concave, sometimes bulging slightly on each side. Lower jaw with row of moderately small canines, pair adjacent symphysis (and often one or more other pairs laterally) considerably larger than rest; upper jaw with broad band of smaller teeth and row of larger depressible canines on inner edge. Reaches at least 650 mm total length.

Body whitish below, speckled greyish brown above, with two more-or-less distinct broad bands dorsally on sides, first above pectoral fin and second below posterior half to two-thirds of dorsal fin, bands most distinct in small specimens;

dorsal surface of head variably mottled and speckled with dusky and dark pigment. Dorsal and caudal fins and lateral surfaces of pectoral fins dark with distinct pale margins; anal fin and lateral surfaces of pelvic fins pale or slightly dusky with pale margins.

Etymology. From the Latin *canaster* (grizzled), in reference to the distinctive colour pattern of this species.

Distribution. Restricted to southern Australia, including Tasmania, from about Sydney, New South Wales to the Great Australia Bight, in depths of 30 to over 370 m. The depth of the paratype (AMS E.3354) recorded early this century from 640-823 m is somewhat doubtful based on recent collecting efforts.

Comparisons. *Kathetostoma canaster* is most easily distinguished from the other Australian congeners by colour pattern, both *K. laeve* (Bloch & Schneider, 1801) and *K. nigrofasciatum* Waite & McCulloch, 1915, having distinctively contrasting dark bands against a uniformly paler background dorsally, instead of the more speckled pattern of the new species. In comparison with the new species, *K. nigrofasciatum* has fewer dorsal-fin rays (14-15), anal-fin rays (13-14) and vertebrae (27-29), a narrower head and more pronounced bulges along the posterior edge of the dorsal bony surface of the head. *Kathetostoma laeve* has on an average fewer anal-fin rays (13-15), fewer vertebrae (28-30), a smaller eye (15.7-19.3% head length) and lacks noticeably enlarged canines in the outer row of teeth of the lower jaw. A New Zealand species, *K. giganteum* Haast, 1873, differs in usually having

more dorsal-fin rays (18-20, rarely 20), more anal-fin rays (17-20, rarely 17 or 20) and a much rougher ornamentation on the bony dorsal surface of the head, especially in juveniles. The juvenile colour pattern of *K. giganteum* is distinctly different, consisting of a series of broader pale and dark vermiculations on the dorsal surface, those at the base of the dorsal fin forming interrupted longitudinal stripes.

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