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A New Species of Eel of the Genus *Moringua* (Pisces) from
Manihiki Atoll, Northern Cook Islands

by CHARLES McCANN

Abstract

A NEW species of *Moringua* is described from Manihiki. It differs from *M. abbreviata* in the dental pattern and from *M. javanica* in having the posterior nostril smaller than the eye, and from both in the green colour.

INTRODUCTION

WHILE sorting the material collected at Manihiki Atoll, in the late summer of 1960, I came upon a curious little greenish eel belonging to the genus *Moringua*. In *Moringua* the anus is closer to the end of the tail; this distinguishes the genus from the closely allied *Uropterygius* in which the anus is nearer to the centre of the body.

Genus MORINGUA Gray

1831. *Moringua* Gray, Illus. Ind. Zool., 1(5), pl. 95.

1831. *Rataboura* Gray, Zool. Misc., pt. 1, p. 9 (February).

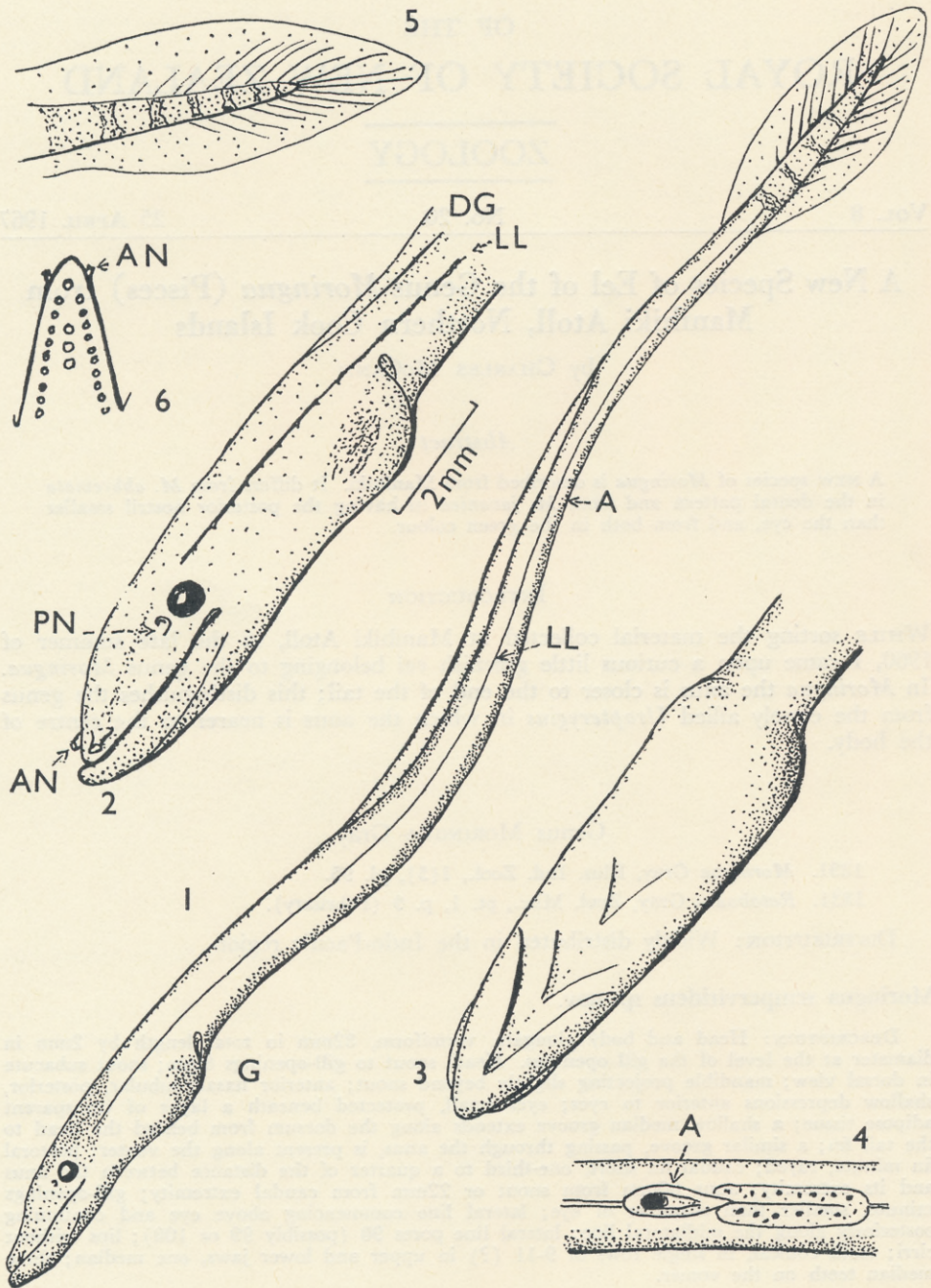
DISTRIBUTION: Widely distributed in the Indo-Pacific region.

Moringua semperviridens sp. nov.

DESCRIPTION: Head and body elongate, vermiform, 82mm in total length by 2mm in diameter at the level of the gill openings. Head, snout to gill-openings 8mm; snout subacute in dorsal view; mandible projecting slightly beyond snout; anterior nasals tubular, posterior, shallow depressions anterior to eyes; eyes small, protected beneath a layer of transparent adipose tissue; a shallow median groove extends along the dorsum from behind the head to the tail fin; a similar groove, passing through the anus, is present along the venter; pectoral fin minute, rayed; caudal fin short, one-third to a quarter of the distance between the anus and its extremity; anus 60mm from snout or 22mm from caudal extremity; gill-openings minute, smaller than diameter of eye; lateral line commencing above eye and continuing posteriorly along the midlateral line; lateral line pores 98 (possibly 99 or 100); lips without cirri; teeth conical, in single rows of 9-11 (?) in upper and lower jaws, one median; three median teeth on the vomer.

COLOUR: The entire specimen is a very pale translucent bottle green throughout, with the contents of the viscera showing through; the eyes are black. This colouration still persists after five years in formalin.

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del. McCann

FIG. 1.—*Moringua sempervirens* sp. nov., entire animal. FIG. 2.—Head, lateral aspect. FIG. 3.—Head, underside. FIG. 4.—Anus. FIG. 5.—Caudal fin. FIG. 6.—Arrangement of dentition of upper jaw.

A = anus; AN = anterior nasal tube; DG = dorsal groove; LL = lateral line; PN = posterior nares.

LOCALITY: Type locality: Sta. A 958, South end of Tauhunu, edge of reef flat, Northern Cook Islands, 10 August 1960. Collected by J. S. Bullivant. New Zealand Oceanographic Institute Type No. 20.

REMARKS: *Moringua semperviridens* has the lower jaw slightly longer than the upper, and the dorsal and anal fins only vestigially represented by shallow grooves. Schultz's key (Schultz, 1953) identifies it as either *M. abbreviata* (Bleeker) or *M. javanica* (Kaup). The dental pattern of *M. semperviridens* is similar to, although not precisely identical with, that of *M. javanica*, and excludes it from *M. abbreviata* (see Schultz, 1953, Figs. 19b, c). However, Schultz describes *M. javanica* as having "eye much smaller than posterior nostril" and the reverse is true of the Manihiki specimen. It also differs from other described immature and mature specimens in its green colouring—a crab and a reef coral associated with it were of similar colour. It has several V-shaped gular grooves.

Gosline and Strasburg (1956), in discussing Hawaiian specimens of *Moringua*, raise several fundamental questions regarding the classification of *Moringua* and conclude, on the basis of United States National Museum material, "that all the Central Pacific moringuids with the lower jaw protruding and with pore counts from 84 to 110 belong to *M. macrochir*". Their data indicate that a number of species recognised by Schultz may be synonyms of *macrochir* and that the Manihiki specimen could also be *macrochir*. While it might appear unwise, in view of their work, to describe the Manihiki specimen as a new species, it seems to the author equally unwise to extrapolate their findings too far in the present state of knowledge. Their paper raises problems rather than solves them. Also there are minor differences unaccounted for; for example, the lanceolate tail of the Manihiki specimen which is unlike either form figured for the Hawaiian material (Gosline and Strasburg, 1956, Fig. 2).

Until the limits of variability of *Moringua* species have been better defined, it is considered wiser to adopt the conservative viewpoint, accepting Schultz's 1953 revision of the genus and arguing from there. This ensures the recording of *Moringua* from Manihiki with an appropriate description.

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CHARLES McCANN,
New Zealand Oceanographic Institute,
D.S.I.R.,
Wellington.