

commences a little behind the posterior half of the pectoral, and the length of its base is two and one-fifth in the total length; the anterior rays are short and gradually increase in length to the twelfth which, with the thirteenth and fourteenth, is the longest in the fin, and about one-seventh longer than the snout; behind these the rays become abruptly shorter, so that the outer margin of the fin is concave behind them, and the posterior two or three rays appear to be distinctly elongated, the last being about equal to the eighteenth: the anal commences beneath the middle dorsal ray, and its shape is similar to that of the dorsal, the base of which is exactly twice the length of its base; the fifth ray is the longest, and is but a fraction shorter than the longest dorsal ray, while the distance between the base of the first ray and the origin of the caudal is contained one and one-fourth times in that between the same point and the extremity of the snout: the pectoral is small and rather pointed, the fourth to seventh rays the longest, two and one-seventh in the length of the head: ventrals small, equal in length to the snout: caudal deeply emarginate. Scales very small, each one pierced by a small, central, circular pore; opercle, sub- and inter-opercle scaly, the scales being of equal size to those on the body; rest of the head naked, covered with a thick and densely porous skin; vertical fins scaly over about two-thirds of their height. Lateral line forming a long curve to beneath the longest dorsal rays.

*Colors.*—Uniform brown, darkest above; the sides of the head washed with dull blue; the fins and opercles with gold.

*Type.*—In the Australian Museum.

The Australian Museum also possesses a specimen of *Pteraclis velifer*, a species previously unrecorded from New Zealand.

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REVIEW OF THE GENUS *SCHEDOPHILUS*, COCCO,  
AND ITS ALLIES.

BY J. DOUGLAS OGILBY.

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The present paper was suggested by the occurrence on the coast of New South Wales of a specimen of *Schedophilus maculatus*, this being the first record for the genus from Australian waters, and the time has been deemed opportune to review the history, such as it is, of the various species, the more especially that these pelagic forms are liable to occur at any time upon any part of the

Australian coast, and, where so little is known of them, it is advisable that no opportunity should be lost of recording any fresh facts in connection with their distribution and mode of life.

The genus *Schedophilus* was originally placed by Günther among the *Coryphænina*, at that time considered to be a Group of the *Scombridæ*, but subsequently accorded family rank. The discovery, however, off the Pacific coast of North America of two closely allied forms, induced Professors Jordan and Gilbert to remove these fishes, respectively known as *Icosteus enigmaticus* and *Icichthys lockingtoni* to a separate family, for which they proposed the name *Icosteidæ*, and in which was included the *Bathymaster* of Cope, a genus which differs in a much greater degree from the typical *Icosteus* than does *Icosteus* from a typical *Schedophilus*, which latter genus is apparently omitted entirely from the family; the words of those authors, after diagnosing the *Icosteidæ*, being: "This group, as at present constituted, is composed of three very diverse genera, each of a single species, inhabiting the deeper waters of the North Pacific. It is probably most nearly related to the *Malacanthidæ*, from which it is distinguished by the presence of pyloric cæca, and by the non-labrid dentition."\*

The formation of a new family for these fishes, and the consequent disruption of his *Coryphænidæ*, does not meet with Dr. Günther's approval, and he further holds that the splitting up of Cocco's genus is distinctly untenable; he remarks: "I fail to find in the description (of *S. lockingtoni*) characters which would warrant a generic separation from *Schedophilus*, or the creation of a distinct family *Icosteidæ*."† With the latter part of this opinion we are entirely in accord, for we cannot consider that such characters as the dentition and the absence of pseudobranchiæ, however useful in separating genera, can with propriety be applied to the differentiation of families.

With reference to the generic distinctions pointed out by Lockington, Jordan, and Gilbert, we cannot, however, so readily give in our adherence to Dr. Günther's views; such characters as the presence or absence of scales, of groups of epidermal spines, and of an airbladder‡ being of sufficient importance to make us hesitate before declining to accept the genera *Icosteus* and *Icichthys* proposed by the American ichthyologists. In this communication we shall, however, include all the known species under the common term *Schedophilus*, using the other names as signifying

\* Synopsis, p. 619.

† Voy. Challenger, xxii. p. 46.

‡ This is apparently of less importance, and is of course well known in the true Mackerels.