

There can be no doubt as to the validity of this species, as it widely differs in the number of its rays from all except one otherspecies of *Priacanthus*, and especially from the formerly known American ones. The only species which resembles it in the number of the rays of the fins is a Japanese species—the *Priacanthus nipponius* of Cuvier and Valenciennes, and the Fauna Japonica. In other respects also the Japanese and North American species are closely related. The form is nearly similar but the height even greater in ours than in the *Priacanthus nipponius*, and consequently exceeding that of any other known species of the genus; the scales of the body and head are very rough; the ventral fins in the young, at least, entirely blackish; the spinous portion of the anal fin is also very dark. It is probable that the species undergoes a change of color somewhat similar to the *Priacanthus nipponius*.

The discovery of three new species of fishes on the coast of Rhode Island, all representing forms almost entirely confined to warmer seas, in such rapid succession, is an event of no little interest and importance. The specimens obtained were all young; single examples only were found of the *Sarothrodus* (*Chetodon* anct.) *maculo-cinctus* and the *Priacanthus*, and two of the *Hyporhodus flavicauda*. They were all doubtless brought to the New England shores by the Gulf Stream, which runs near the Rhode Island coast, and in which the traveller often finds small fishes, as well as other animals, of which the Isopod Crustacean, described below by Dr. Stimpson, is an example. None of the three species of fishes previously mentioned have yet been seen in the West Indian seas, where they will undoubtedly be hereafter found. It is important also to compare the discovery of these fishes on our own northern shores with the discovery on the Scandinavian and Greenland coasts of forms equally characteristic of the tropics. In another article I will allude to the analogy between the denizens of the Carribean and Japanese seas.

On an oceanic ISOPOD found near the south-eastern shores of Massachusetts.

BY WM. STIMPSON.

In the summer of 1859, while cruising among the south-eastern islands of Massachusetts in company with my friends Dr. Slack and Mr. Ordway, we approached the shores of the beautiful island of Martha's Vineyard—the Isle of Wight of New England. When becalmed in the Vineyard Sound north of Gay Head, we were occupied in observing the small medusæ and other pelagic animals which appeared near the surface of the water. Among them we noticed some pretty blue isopods quite new to our shores, which reminded me of forms which I had met with in the temperate parts of both great oceans. They were swimming at the surface and could be easily distinguished from the deck of our boat, even at some distance, by the ripple they made in their progress. Several of them were caught, and found to be *Idothea* of that oceanic type which has the habits of the miniature sailors *Physalia*, *Verella* and *Janthina*, which are occasionally cast upon our south-eastern shores. It proves to be

IDOTHEA ROBUSTA KR.

Body strongly convex, two and two-thirds as long as broad, and broadest at the fifth thoracic segment; lateral outline convex at the thorax, but somewhat concave at the abdomen. Surface pubescent. Inner antennæ reaching to the penultimate joint of the peduncle of the outer ones, which are less than one-half the length of the body. Thoracic segments protuberant, and laterally somewhat rugose; their epimera large, distinct and rather sharply projecting. Abdomen strongly three-jointed, with partial separation of a
1862.]

fourth joint, as in other species of the group. Extremity of the abdomen truncated, or slightly excavated. Color in life deep blue beneath the silvery or pearly pubescence.

Length 0·8; greatest breadth 0·29 inch.

Its nearest ally is *I. margaritacea* Dana, found in the ocean between Australia and New Zealand, in which the abdomen is regularly rounded at the extremity, while in our species there is a well-marked angle on either side.

On the West African genus *HEMICHROMIS* and descriptions of new species in the Museums of the Academy and Smithsonian Institution.

BY THEODORE GILL.

Mr. P. DuChaillu, the African traveller, obtained among other objects of natural history, specimens of several species of fishes, one of which is a new form of Peters' genus *Hemichromis*.

The genus *Hemichromis* was proposed, in 1857, by Dr. Peters for Chromoids, having the habit of *Chromis* or *Tilapia*, and with a row of conic, brown tipped teeth in each jaw, the two median of which in the upper were considerably larger, and also with an interior row of smaller teeth in the upper jaw. The only species was obtained in Guinea by Pel.

Recently, M. August Duméril has described and figured a species as a new generic type under the name of *Chromichthys elongatus* Guichenot. It agrees in every respect with *Hemichromis*, except in the presence of only one row of teeth in the upper jaw. As, however, the inner row of *Hemichromis* is formed by very small teeth, it is probable that it has been overlooked by Guichenot and Duméril, and that their species is therefore a genuine *Hemichromis*. That genus will then embrace four species, which may be distinguished as follows:

HEMICHROMIS FASCIATUS Peters.

Hemichromis fasciatus Peters, Monatsberichte der Königlich Preuss. Akademie die Wissenschaften zu Berlin, 1857, p. 403.

"Fasciis transversis fuscis sex, macula operculari nigra; pinna dorsali et anali oblique fasciatis, albo marginatis; pinna caudali supra infraque albo marginata; pinnis ventralibus externe fuscis."

D. XIV. 11—12. A. III. 9—10.

Habitat. Guinea. (Peters.)

HEMICHROMIS ACRITUS Gill.

Fasciis quinque, latere medio expansis, macula operculari nigra, margaritacea supra infraque marginata; pinnis ventralibus externe fusco-purpureis.

D. XIV. 11. A. III. 8.

Habitat. Gaboon River?

HEMICHROMIS BIMACULATUS Gill.

Unicolor, macula corporis latere unica et operculi apice nigris.

D. XIV. 1. $8\frac{1}{1}$. A. III. $6\frac{1}{1}$. Squam. ser. $25\frac{3}{9}$.

HEMICHROMIS ELONGATUS Gill.

Chromichthys elongatus (Guich.,) Dum., Archives du Museum, tome x. p. 257, pl. xxii. fig. 3.

Fasciis quinque (macula operculi iri nulla): squamis buccis quinqueseriatis.

D. XIII. 9. A. III. 8.

Habitat. Gaboon River.

[March,