LIST OF FISHES NOW IN THE U. S. NATIONAL MUSEUM, COLLECTED IN NICARAGUA BY DR. LOUIS F. H. BIRT.

BY DAVID STARR JORDAN.

A small collection of fishes has been made in Nicaragua by Dr. Louis F. H. Birt. These were sent to the U. S. National Museum, where they were received December 14, 1888. Of these specimens those numbered from 39907 to 39912 are said to be from (Lake?) Nicaragua; the others (39913 to 39920) from a point 40 miles above the mouth of the Rio San Juan, which is the outlet of Lake Nicaragua. This would be about half-way between the lake and Greytown, at the mouth of the river.

39907, 39908. Allurichthys filamentosus (Swainson). (Felichthys filamentosus Swainson; Galeichthys blochi Cuv. & Val.)

This species greatly resembles Allurichthys marinus, with which it has hitherto been usually confounded. It is probable that the latter is chiefly or wholly confined to the coast of the United States, and the tropical representatives of the species belong to the present type, for which filamentosus is the oldest specific name.

The chief difference is in the much greater development of the occipital process or buckler in A. filamentosus as compared with A. marinus. The anal rays in our specimens of A. marinus are 23; in A. filamentosus, 26; shield on top of head much more extensively rough than in A. marinus, the granulations extending on each side of the fontanelle to before it; granulated area before occipital process broader than long, its width more than half head; occipital process triangular, emarginate behind, its width at base about 1½ in its length and highly granular; basal bone of dorsal spine short, but extending down for a considerable distance saddlewise, its prolongations visible through the skin. (In A. marinus the occipital process is small and oblong, of nearly the same width behind as before.) Dorsal spine a little shorter than head, little longer than pectoral spine; dorsal filament reaching to or beyond adipose fin; pectoral filament to just beyond front of anal; maxillary barbels to end of pectoral spine; color of A. marinus.

39909. Chalcinopsis dentex Günther.

A large specimen.

39910, 39911. Rhamdia guatemalensis (Günther).

These specimens agree fairly well with Günther's account, except that the tip of the anal does not reach nearly to the end of the adipose fin, when laid backward. One has 12 anal rays, the other 13.

39912. Heros motaguensis Günther.

Two specimens; no distinct dark spot on subopercle; otherwise agreeing fairly with descriptions.
39913. Eulamia nicaraguensis Gill.
   A good specimen of this interesting fresh-water shark, agreeing well
   with Gill's description; both dorsals and caudal edged with black.

39914. Philypnus dormitor (Lacépède).  (Elocotris longiceps Günther.)

39915. Heros dovii Günther.

39916. Heros basilaris Gill and Bransford.
   Four specimens.

41001. Heros aureus Günther.
   Small specimens, numbered as young of the preceding.

39917. Heros nigrofasciatus Günther.
   Two specimens.

39918. Tetragonopterus fasciatus (Cuvier).

39919. Heros nicaraguensis Günther.
   Head less elevated above than in Günther's figure; lateral spot very
   distinct; other bands very obscure.

39920. Heros friedrichsthali Heckel.
   No distinct dark cross bands.

39958. Anacyrtus guatemalensis Günther.
   This specimen was with the others, but it is not included with the
   memoranda of Dr. Birt's collection.

   Of the fourteen species here enumerated none are new. The follow-
   ing do not seem to have been previously recorded from the basin of
   Lake Nicaragua:

   Ailurichthys filamentosus.  |  Heros aureus.
   Rhamdia guatemalensis.    |  Heros nigrofasciatus.
   Tetragonopterus fasciatus. |  Heros motaguensis.
   Chalcinopsis dentex.       |  Heros friedrichsthali.

   INDANA UNIVERSITY, March 14, 1889.