

face; (5) the development of some eels for the first fifteen days and that the resulting creature is different both from the adult eel into which it will develop, and from the larva of the eel; (6) the *Leptocephalus* of the eel and the process of its metamorphosis through a *Hemichthys* stage into the young eel as it is found entering the streams; (7) the young eels enter the streams during spring about two years after their parents have entered the sea. †

Whether they ever do, or do not breed in fresh water is a question still unsolved: and in this connection Eigenmann says:—

The question whether or not the eel ever breeds in fresh water has been answered in the affirmative by several observers. There is nothing that would indicate the adherent impossibility of eels becoming land-locked and breeding in fresh water. The evidence is, however, so far inconclusive. No one has yet taken eel eggs or larval eels, or younger eels than those that ordinarily ascend streams from the ocean in any fresh water. The statement that they must breed, because we know of no other way in which the supply of eels is being maintained in land-locked basins is not conclusive evidence that they do breed in these basins. ‡

It would seem, at first thought, incredible that eels from far inland lakes should ever make their way to the sea, (and in the case of the young, *vice versa*, from the sea to the lakes), but their instincts lead them that way at the approach of the spawning time; and doubtless thousands perish in the attempt; but we must bear in mind their serpentine form, their wriggling movements, and the fact that they can live for a considerable time out of water, so that they are enabled to make their way through obstacles utterly insurmountable to other fishes.

They go to the sea when about four years old and are said never to return; the young ones taking their places by ascending the streams in incalculable millions, a comparatively few ever reaching the upland lakes and rivers, but the overcomers make use of swollen tributaries, flood-gates, and even moist places between shut off waters, in getting to the limits of their extensive geographical range.

BRILLIANT HUES OF FISHES OF THE CORAL REEFS.

Naturalists are well acquainted with a phenomenon known as protective coloration in animals. In other words various animals

† Carl H. Eigenmann: *Ibid*: p. 16.

‡ Carl H. Eigenmann: *Ibid*: p. 17.