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COLLECTION OF POSTLARVAL AND JUVENILE *HOPLIAS MALABARICUS* (CHARACOIDEI: ERYTHRINIDAE) IN FLORIDA[1]

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ABSTRACT: *Twenty-four postlarval and juvenile specimens of* Hoplias malabaricus *were collected in the Little Manatee River drainage, Hillsborough County, Florida. This collection confirms that* H. malabaricus *has become established in Florida.*

OCCURRENCE of the South American erythrinid *Hoplias malabaricus* in Florida has been documented by Hensley and Moody (1975). They presented strong evidence that the species has reproduced in the drainage of the Little Manatee River. A large number of specimens (126-325 mm SL) was collected in one pond in this drainage system, and histological examination of the gonads has shown that they can become reproductively active in Florida. Because of research priorities, only a small section of the Little Manatee River drainage was sampled extensively. *H. malabaricus* was found in only one pond. Water levels at that time were low and the pond was isolated. In hopes that this was the only locality where *H. malabaricus* was found, they treated the pond with an ichthyocide. This effort failed to eradicate the species. The present paper verifies the establishment of this species in Florida.

During August and September 1975, 24 postlarval and juvenile specimens of *H. malabaricus* were collected by seine in the same small system of drainage ditches and ponds where Hensley and Moody originally collected them. Due to recent rains, water levels in the area were high, forming a system of interconnected swamps and weed-choked ditches and ponds. Aerial surveillance indicated that during periods of high water levels, this system has extensive connections with the remainder of the Little Manatee River drainage (Vernon Ogilvie, personal communication). Two water temperature readings of 27 and 29°C were taken on two separate days in the area where the specimens were collected. Seventeen of these specimens are at the Exotic Fish Research Laboratory, Florida Game and Fresh Water Fish Commission, Boca Raton. The smallest specimens (18.7-43.3 mm SL) are deposited at the Florida Department of Natural Resources Marine Research Laboratory, St. Petersburg, and were the only ones available to me for examination.

An 18.7 mm SL specimen is illustrated in Fig. 1. With the exception of the pectoral fins this specimen resembles the adult. The pectoral fins are the "larval" type with a fleshy base and a fan-shaped membrane bearing only actinotrichia.

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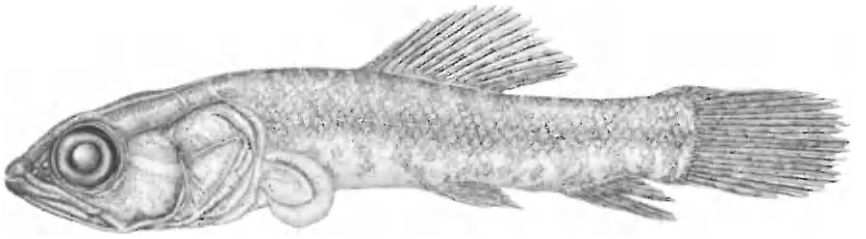

Fig. 1 Postlarval *Hoplias malabaricus*, 18.7 mm SL.

Pectoral lepidotrichia appear to begin to develop between 22 and 30 mm SL (Table 1). With development of the lepidotrichia, the fleshy fin base becomes reduced. Since none of the specimens available to me had developed the adult complement of pectoral lepidotrichia (14-15 total), I have called them postlarvae (Hubbs, 1943). The canine teeth were well developed in all specimens examined. The gut of a 30.6 mm SL specimen was found to contain two fishes which could not be positively identified due to the state of digestion; one cyprinodontiform (16.5 mm SL), probably *Gambusia affinis*, and one small unidentifiable specimen.

TABLE 1. Number of pectoral lepidotrichia for postlarval *Hoplias malabaricus*.

SL (mm)	Number of pectoral lepidotrichia
18.7	0
21.0	0
22.6	0
30.6	9
36.0	12
41.5	13
43.3	13

Due to the great amount of interconnection between localities where this species has been collected and the remainder of the Little Manatee River drainage during periods of high water levels, *H. malabaricus* is probably widely distributed within this drainage system. Thus, efforts to eradicate this species seem futile. However, due to its great potential for causing damage to native freshwater fish populations (Hensley and Moody, 1975), its dispersal should be rigorously monitored. It may be possible to contain this species to some extent or to prevent its dispersal into particular areas.

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