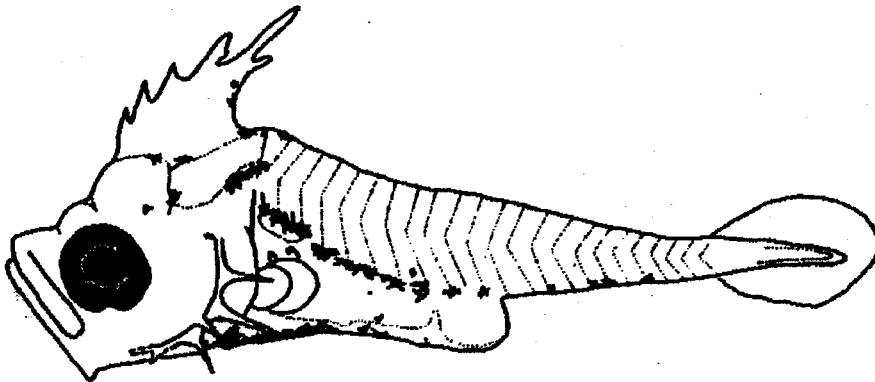




PRELIMINARY GUIDE TO THE IDENTIFICATION OF THE EARLY LIFE HISTORY STAGES OF LOBOTID
FISHES OF THE WESTERN CENTRAL ATLANTIC

BY

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**U.S. DEPARTMENT OF COMMERCE
Donald L. Evans, Secretary**

**National Oceanic and Atmospheric Administration
Scott B. Gudes, Acting Under Secretary for Oceans and Atmosphere**

**National Marine Fisheries Service
William T. Hogarth, Acting Assistant Administrator for Fisheries**

July 2001

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W. J. Richards, Editor. NOAA Fisheries, 75 Virginia Beach Drive, Miami, FL

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Springfield, VA 22161
(800) 553-6847 or (703) 605-6000
<<http://www.ntis.gov/numbers.htm>>

LOBOTIDAE

MERISTICS

Vertebrae:	
Precaudal	11
Caudal	13
Total	24
Number of Fin Spines and Rays:	
First Dorsal	XII
Second Dorsal	15-16
Total	27-28
Anal	III, 11-12
Total Anal Elements	27-28
Pectoral	16
Pelvic	1,5
Caudal	
Dorsal Secondary	3-5
Principal	9+8
Ventral Secondary	3-5
Total	23-27

LIFE HISTORY

Range: throughout area

Habitat: epipelagic, shelf & oceanic, may enter bays & estuaries

ELH Pattern: oviparous, pelagic eggs & larvae

Spawning:

 Season: May-September

 Area: outer shelf & oceanic waters

 Migration: north-south

 Age at first maturity: 1

LITERATURE

Uchida et al 1958, Merriner & Foster 1974, Johnson 1984, Gilhen & McAllister 1985, Ditty & Shaw 1994

Lobotes surinamensis (Bloch)

EARLY LIFE HISTORY DESCRIPTION

EGGS: Unknown

LARVAE:

Length at Flexion: 4-5 mm SL

Length at transformation: 9.0-9.5 mm SL

Sequence of fin development: P₂, D₁, D₂, A, P₁, C

Pigmentation: heavy, mottled at larger sizes

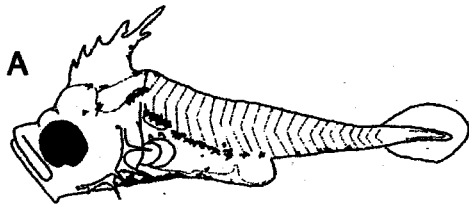
Diagnostic Characters: median, vaulted, serrate supraoccipital crest with spines along leading edge; precocious pelvic fins. Separate from *Chaetodipterus faber* by fin ray counts; from other similar larvae by placement of pelvic fin origin posterior to pectorals & lack of serrate dorsal, anal, & pelvic spines.

ILLUSTRATIONS

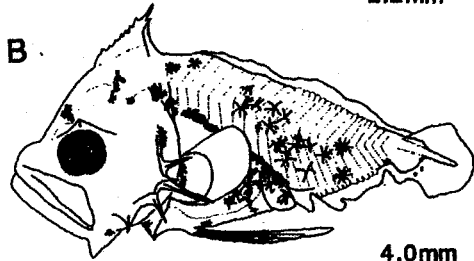
From Ditty & Shaw 1994. A: 2.2 mm NL, B: 4.0 mm NL, C: 6.0 mm SL, D: 6.3 mm SL, E: 7.6 mm, F: 8.5 mm SL, G: 10.8 mm SL

Lobotes surinamensis

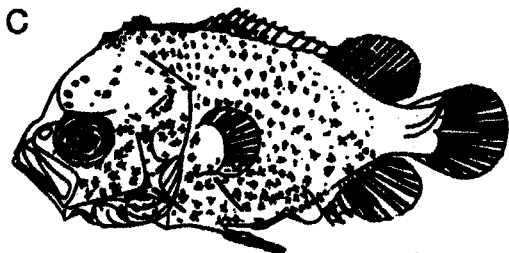
LOBOTIDAE



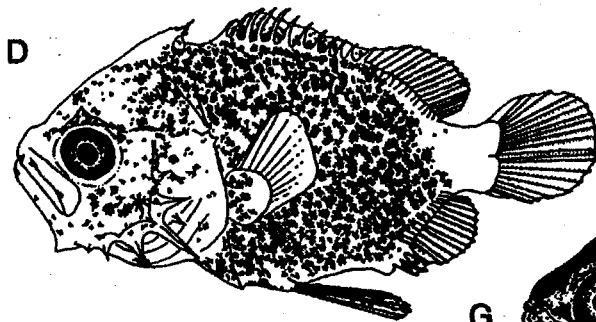
2.2mm



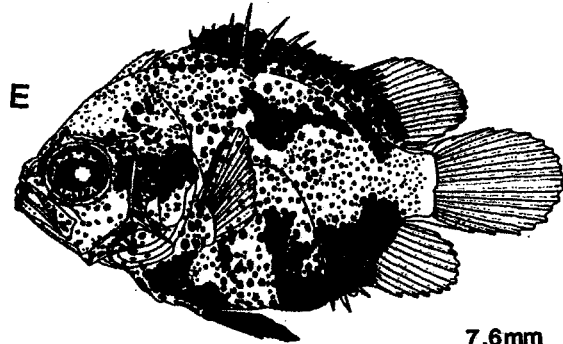
4.0mm



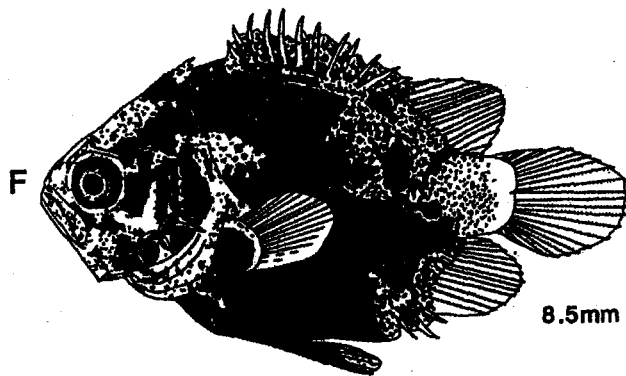
6.0mm



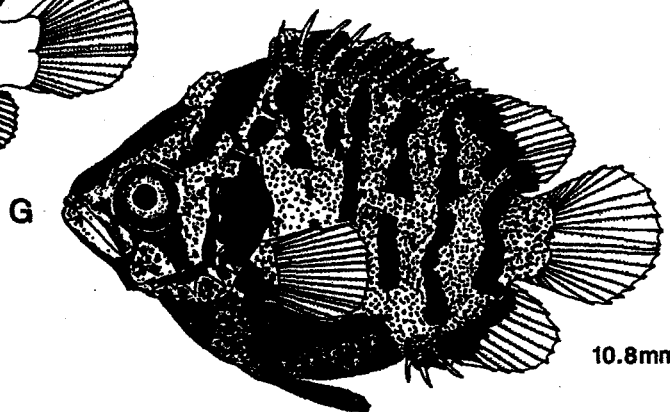
6.3mm



7.6mm



8.5mm



10.8mm

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