SYSTEMATIC STUDIES ON ANABAS TESTUDINEUS (BL., 1792) AND A. OLIGOLEPIS BLKR., 1855

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ABSTRACT

Anabas testudineus (Bloch, 1792) and A. oligolepis Blecker, 1855 are described, the latter being recorded for the first time from India. Juveniles and adults were collected from the market at Bhimavaram (W. G. District, Andhra Pradesh). A. testudineus can be distinguished from A. oligolepis by: (a) less deep body; (b) longer pectorals; (c) shorter snout; (d) dark spot at base of caudal fading with age.

INTRODUCTION

The Anabantoid fishes of genus Anabas commonly known as "Indian climbing perch" are well known for their air-breathing habit. There has however, been considerable confusion in regard to the systematics of the genus, because little attention has been paid to intraspecific variation in number of spines and rays in dorsal and anal fins, number of lateral line scales and to body proportions in the different species.

It was felt that a systematic study of the locally available species Anabas should prove useful; it is an economically important fish, much favoured for its taste and nutritive value. Its air-breathing habit and tolerance to pollution are availed of to transport it live over long distances to places like Calcutta. Smith (1945) has made some interesting observations on its habits.

The history of Anabas in this country can be traced back to 1791, when Daldorff saw a fish enjoying itself in the rain water that had collected in the fissure of a palmyrah palm near a pond and described it (1797) as P. scandens; earlier Bloch (1795) had recorded it as Anthias testudineus. Cuvier (1817) brought it under the new genus Anabas. Guenther (1861) described four species, A. scandens (= A. testudineus), A. oligolepis, A. macrocephalus, and A. microcephalus. Day (1878) described Anabas scandens.
Recently Alfred (1966) has recorded *A. testudineus* from Singapore. The present contribution describes *Anabas testudineus* (Bloch) and *Anabas oligolepis* Bleeker, the latter for the first time from India.

**MATERIAL AND METHODS**

Live juveniles and adults of *Anabas testudineus* (89-146 mm. s.l.) and *A. oligolepis* (60-125 mm. s.l.) from neighbouring ponds and paddy fields were collected in the market at Bhimavaram (West Godavari District, Andhra Pradesh) during the years 1966-67. In taking linear measurements total length was measured from tip of snout to longest caudal ray; standard length from tip of snout to mid-base of caudal fin; head length from tip of snout to hindmost point of operculum including spinous portion; depth: maximum depth.

**Order:** PERCIFORMES  
**Sub-order:** ANABANTOIDEI  
**Family:** ANABANTIDAE  

*Anabas testudineus* (Bloch, 1792)

*Anabas testudineus* Bloch, 1792  
*Anabas scandens* : Cantor 1849; Blecker, 1865; Day, 1878.  
*Anabas macrocephalus* : Karoli, 1822; Guenther, 1861.  

Description based on 25 specimens, between 89 mm. and 146 mm. s.l.

D XVI-XVI, I, 8-10 ; A VIII-XI, 9-11 ; P 14-15 ; V I, 5 ; C 16-17 ; scales in lateral line series 11-18+8-13 (total 21 to 29); in transverse series 2-3+1+8-10 (total 11-14).

Depth 3.7-4.3, Head 3.6-4.1, in total length.  
Depth 3.1-3.5, Head 3.0-3.3, in standard length.

In percentage of standard length.—Total length 120.9-127.0; depth 28.1-32.2; head 29.6-33.3; snout 5.7-7.7; eye 5.7-8.0; interorbital space 10.1-12.5; base of spinous dorsal 42.0-48.3; base of soft dorsal 8.3-12.3; base of spinous anal 22.1-29.1; base of soft anal 9.3-12.3; height of spinous dorsal 10.1-13.7; height of soft dorsal 13.6-17.0; length of pectoral 20.3-24.1; length of ventral 13.0-17.0; depth of