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VALIDITY OF *ANABAS OLIGOLEPIS* BLEEKER , 1855 AND *COIUS COBOJIUS* HAMILTON-BUCHANAN, 1822 A JUNIOR SYNONYM OF *A. TESTUDINEUS* (BLOCH,1795) (OSTEICHTYES : ANABANTIDAE).

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Key words : *Anabas testudineus, A. oligolepis* , Taxonomy .

Abstract :

Two closely related species of *Anabas* occur in India . among them one species is recognised as *Anabas testudineus*. Confusion arose regarding the nomenclature of the second species. The present contribution is aimed at resolving the confusion .

Introduction :

Science Day (1878) , Ichthyologists believed that a single species of genus *Anabas* (Cuvier, 1816), *A. testudineus* (Bloch,1795), occurred in the oriental region . A second species, *A. oligolepis* Bleeker , 1855, was described in 1968 from Bhimavaram , Andhara pradesh . However, the second species was thought to be *Coius cobojius* Hamilton–Buchanan , 1822 by Talwar and Jhingran (1991). The confusion surrounding the nomenclature of the second species has been examined in detail in the present contribution .

Material and methods :

One specimen each of *Anabas testudineus* 113.0 S.L. and *A. oligolepis* 113.0 S.L. deposited in the Zoology Museum , D.N.R College (Autonomous) were re-examined . A total of 29 specimens of *Anabas* present in the collection of Zoological Survey of India (ZSI) were examined earlier .

Results and discussion :

Two species of *Anabas* : *A. testudineus and A. oligolepis* were recorded and described from Bhimavaram , Andhara pradesh , India by Seshagiri Rao (1968) . He distinguished the two species basing on body depth , length of snout and pectoral fins. *A. testudineus* has a relatively slender body than *A. oligolepis*. Ramaseshaiah (1978) conducted detailed investigations on the two species and found differences in body depth, labyrinthine organ, number of chromosomes , dorsal fin rays, gill rackers on the outer edge of the first gill arch, number of scales below lateral line, lateral line scales, content of ninhydrin – positive compounds in the body surface mucus, content of aspartic acid in the eye lens, protein of eye lens, skeletal muscle, heart muscle, the esterase pattern of serum, liver, kidney, skeletal muscle, heart muscle and eggs and mobility of LDH fraction of eye lens. He also found the fecundity of *A. oligolepis* to be higher than that of *testudineus* .

Earlier, Kaur and Srivastava (1965) recorded 48 diploid chromosomes while Manna and Prasad (1974) reported 46 diploid chromosomes in *A . testudineus*. Dutt and Ramaseshaiah (1980) recognized these as two species : *A .testudineus* (2 n = 48) and *A.oligolepis* (2 n =46). Hughes and Munshi (1973) observed differences in thickness of the water /blood barrier of the gills between "wide bodied"and "narrow bodied" varieties of *A.testudineus*. It is presumed that their sample included both *testudineus* (narrow bodied) and *oligolepis* (wide bodied). A. *oligolepis* Bleeker , is a valid species (Seshagiri Rao (1968, 1971); Seshagiri Rao *et al.* (1992); Dutt and Ramaseshaiah (1980, 1983); Ramaseshaiah and Dutt (1984); Jhingran (1991) and Jayaraman (1999). But, Talwar and Jhingran (1991) admitting that there are two species of *Anabas* , surprisingly treated *A. oligolepis* is treated as a junior synonym of *Coius cobojius* Hamilton Buchanan, 1822 without assigning any reasons, although the latter species was treated as a junior synonym of *A. testudineus* by Day (1978), Venkateswarulu and Menon (1979) and Thakur and Das (1986).

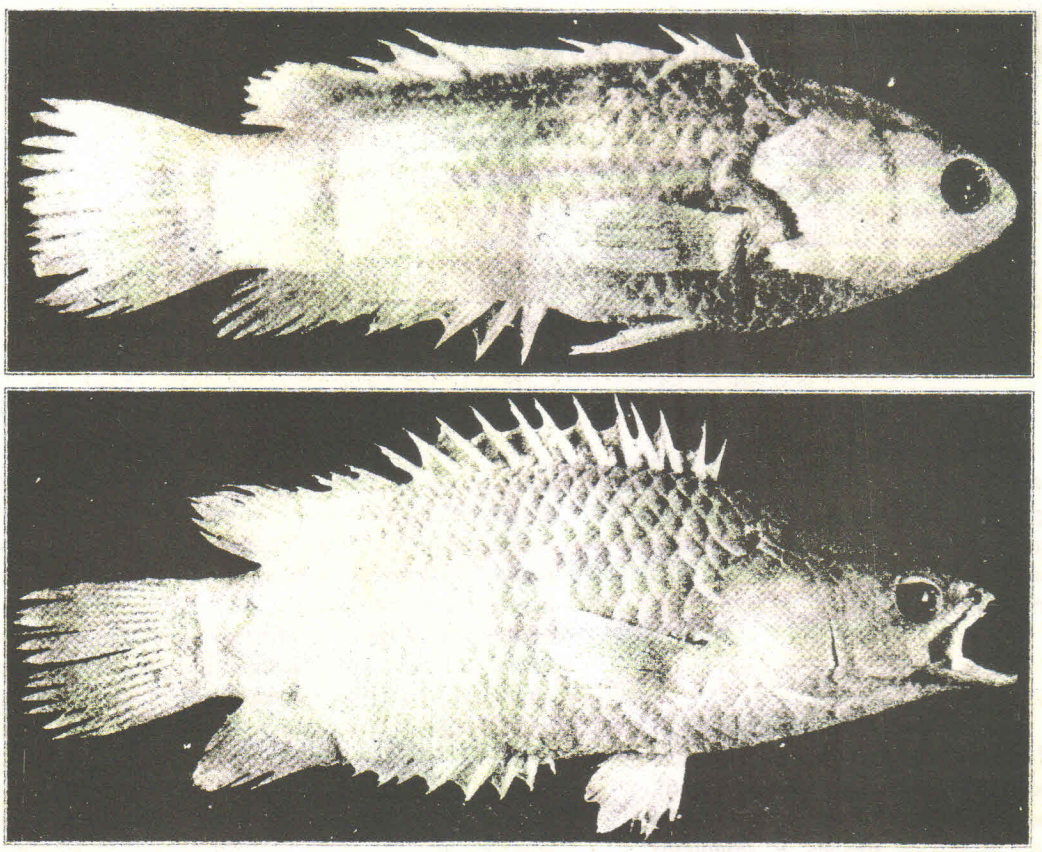

Plate 1. ***Anabas testudineus*** **(Bloch, 1795) 113.0 mm S.L. (Above)**
Anabas oligolepis **Bleeker, 1855, 113.0 mm S.L. (Below), Bhimavaram, Andhra Pradesh.**

Hamilton – Buchanan (1822) did not leave any specimens and his description and figure showing a slender bodied fish (Plate xiii. Fig. 33) is *testudineus*. Further, Talwar and Jhingran (1991) also described *A. testudineus* but the figure (No. 283 p 997) closely resembles *Oligolepis* . However , recently , Jayaram (1999) recognized and distinguished *A. oligolepis* and *A. testudineus* but added a foot note (p .435). "Talwar and Jhingran (1991, p 996) considered this species as the same as *Anabas cobojius* (Hamilton Buchanan)".

C. cobojius Ham. Buch .(= A. cobojius) was never considered a valid species by any author or treated as a senior synonym for over sixteen decades (1822 to 1991) and is a forghtten name in Ichthyology (nomen oblitum, Article 23 (b) ICZN) . Resurrecting such a name of nominal species leads to confusion in the identification of species. In the absence of any other evidence, based on critical examination of the fighure and description of *cobojius* (Ham - Buch), *Coius cobojius* should be treated as a junior synonym of *Anabas testudineus* (Bloch, 1795).

In view of the stability and universality of nomenclature, it is concluded that *Anabas oligolepis* should be retained as a valid name for the second species of *Anabas*.

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