

**OTOLITHOIDES BRUNNEUS (DAY) 1873, AS A JUNIOR SYNONYM OF
OTOLITHOIDES BIAURITUS (CANTOR) 1850 (PISCES : SCIAENIDAE),
WITH NOTES ON THE IDENTITY OF O. BRUNNEUS DUTT AND
THANKAM (1968)**

ABSTRACT

An examination of the syntypes of *Otolithoides biauritus* Cantor and *O. brunneus* Day, 1873 has shown that they are conspecific and that the latter is to be considered a junior synonym of *Otolithoides biauritus*. It is also known that *Chrysochir aureus* (Richardson) has been misidentified by Dutt and Thankam (1968) as *O. brunneus* Day. This note clarifies the taxonomic status and validity of these species.

THREE species of *Otolithoides* Fowler namely *O. biauritus* (Cantor), *O. brunneus* (Day), *O. pama* (Hamilton) are known from India. Cantor (1850) described *O. biauritus* from the sea of Penang and it has been subsequently recorded from Sea of Penang, Calcutta and Malay Peninsula (Gunther, 1860); Penang, Singapore and Borneo (Bleeker, 1874, 1877); and India (Day, 1878, 1889). Fowler (1933), Weber and de Beaufort (1936), and Chu, Lo and Wu (1963) have compiled the description of this species from other sources.

Day (1873) described *brunneus* from Bombay coast. Later it was described by Fowler (1928, 1933) from Bombay, Nanking and Shanghai and by Hardenberg (1931) from Sumatra. Karandikar and Thakur (1959), Kutty (1961) and Bhatt *et al.* (1967) studied aspects of the biology of this species from Bombay coast. Weber and de Beaufort (1936), Chu, Lo and Wu (1963) among others have compiled the description of *O. brunneus* from other sources.

While studying the taxonomy of the sciaenid fishes based on the structure of gas bladder and other internal characters the similarity between *Otolithoides biauritus* (Cantor) and *Otolithoides brunneus* (Day) became evident. The syntypes of *O. brunneus* (Day) from the Zoological Survey of India (examined by the author) and that of *O. biauritus* (Cantor) in British Museum London (examined by Dr. E. Trewavas) have identical gas bladder contrary to the observation made by Day (1878, p. 195) in *O. biauritus* and by Dutt and Thankam (1968) in *O. brunneus* (Day). Gas bladders of the syntypes of *O. brunneus* and *O. biauritus* are simple without lateral arborescent tubules, broad anteriorly, narrow posteriorly with a pair of branches originating at the posterior end extending anteriorly on each side and ramifying into ear ossicles, and floor of cranium with a 'knob' present at the posterior end (Fig. 1b).

Examination of many specimens from along the coasts of Bombay and Bengal did not show any differences to consider the material from the two areas as belonging to two species. The difference in the number of transverse scales as reported by the earlier authors may be due to variations in the manner of counting them by different individuals. The oblique rows give higher counts than vertical rows. (Vertical transverse rows 13+1+8-10 and Oblique rows 20-22+1+15-16).

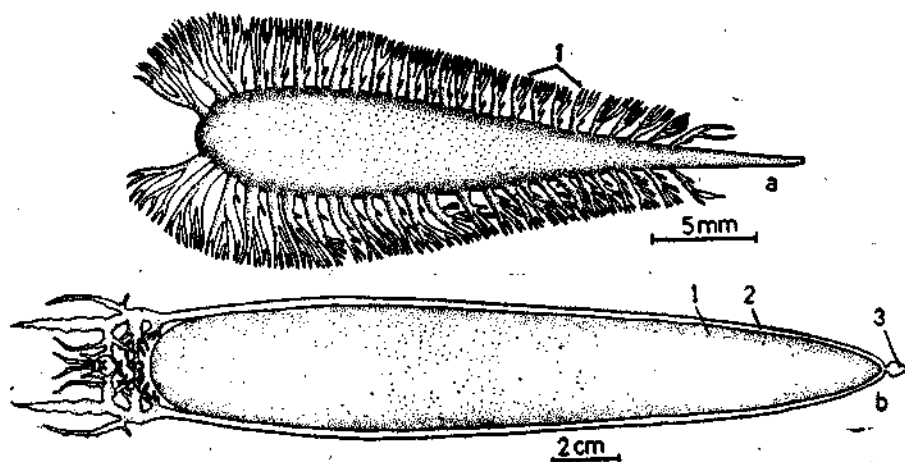


Fig. 1 a. Gas bladder of *Chrysochir aureus* (Richardson), 1. Arborescent tubules; and b. Gas bladder of *Otolithoides biauritus* (Cantor), 1. Bladder, 2. Posterior tubules, 3. Posterior knob.

From Table 1 it is obvious that the meristic and morphometric characters of *O. biauritus* and *O. brunneus* are identical and according to the Law of Priority *Otolithoides brunneus* (Day) 1873 (= *Otolithus brunneus* Day, 1873) becomes the junior synonym of *Otolithoides biauritus* Cantor, 1850 (= *Otolithus biauritus* Cantor 1850). Some confusion is apparent in the structure of the gas bladder as Day (1878) attributed twenty-five lateral processes and a single long projection on either side from the anterior extremity reaching the posterior end of gas bladder, a condition not observed in any of the sciaenid fishes of India. Dutt and Thankam (1968) while describing the gas bladder of *O. brunneus* (Day) observes 'caecal out growth 25-26; like width of air bladder, length of caecae also decreases gradually towards posterior end. Anteriorly air bladder is oval and caecae are longer than width of air bladder, posterior end is bluntly pointed . . .'. They give the dorsal fin formula as X, 1+26 and colour as brownish above with golden reflection below. The gas bladder of *Chrysochir aureus* (Richardson) has 25-26 lateral arborescent tubules (Fig. 1a) and its dorsal fin formula X, 1+26 and colouration brownish above with golden reflection below. The structure of the gas bladder of *O. brunneus* (Day) as confirmed by examining the syntypes, does not have the lateral arborescent tubules or bluntly pointed posterior end, and its dorsal fin formula is IX, 1+27-29 and the colour is dark grey. Moreover, Dutt and Thankam have not recorded *Chrysochir aureus* in their list of sciaenid fishes from Waltair coast though it is a common species there. It is evident that Dutt and Thankam (1968) wrongly identified *Chrysochir aureus* Richardson as *Otolithoides brunneus* (Day).

TABLE 1. *Meristic and Morphometric characters of the syntypes of O. bauritus (Cantor) and O. brunneus (Day) (Measurements in mm)*

Character	<i>O. bauritus</i> Br.	<i>O. brunneus</i> Day	<i>O. brunneus</i> Day	<i>O. brunneus</i> Day
	Mus. No. 1860 3.19.171 (Syntype)	Z.S.I. No. 1024 (Syntype)	Z.S.I. No. 1025 (Syntype)	Z.S.I. No. 1026 (Syntype)
Total length	459	385	390	455
Standard length	399	320	330	385
Head	105.5	90	95	110
Eye	13.5	12	12	13
Snout	22	19	19	23
Depth at anal origin	47.5	48	40	54
Dorsal fin formula	IX, 1, 27	IX, 1, 27	IX, 1, 29	IX, 1, 28
Lateral line scale	50-60	62	60	53
Lateral transverse scale	13-14/8-10	12/1/8	15/1/10	12/1/10
In standard length, head	29.2%	28.1-28.7%		
In head, eye	12.8%	10.8-13.3%		
Snout	21.7%	20.0-21.2%		
Depth at anal origin	44.9%	42.1-53.3%		

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