

CYNOGLOSSUS ITINUS (SNYDER) (PISCES :
CYNOGLOSSIDAE) A NEW RECORD FROM INDIAN
WATERS (BAY OF BENGAL, OFF VISAKHAPATNAM)

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(With 1 Text-figure)

INTRODUCTION

Menon (1977) synonymised several of the *Cynoglossus* species described from Indian waters and considered thirteen of them as valid. More recent collections of flat fishes from Visakhapatnam revealed the availability in Indian waters of some species described from adjoining waters. During the period 1-4-81 to 5-2-83, 30 stray specimens (93.0 to 129.0 mm. SL), which did not fit into the described species of *Cynoglossus* from Indian waters were collected from the trawl catches at Visakhapatnam and Kakinada fish landing centres. Closer examination of the specimens revealed close resemblance with *Cynoglossus itinus* (Snyder), which were reported earlier from the waters off Japan and Hong Kong (Ochiai, 1963 and Menon, 1977). Since their occurrence in the Indian waters and particularly in the Bay of Bengal off the east coast of India is a new record, a detailed description of *C. itinus* (Text-fig. 1) is given and the range of their morphometric and meristic characters (Table 1) is compared with those of specimens from waters off Japan and Hong Kong (Ochiai, 1963 and Menon, 1977).

Diagnosis : It is easily distinguished by (1) the absence of posterior nostril on ocular side, (2) the presence of 8 caudal rays, and (3) the interlinear scale count which is 12-14.

Description : Body slender, deepest at anterior one third of body : Depth of body 23.00-29.12 ($M^*=27.17$), length of head 18.86-23.30 ($M=20.97$) percent of SL. Eye diameter 8.69-16.66 ($M=13.36$), interorbital space 1.92-4.54 ($M=3.35$) percent of length of head. Single tubular nostril (anterior) on ocular side in front of lower eye. Posterior nostril absent. Snout rounded, 28.84-37.50 ($M=33.35$) percent of length of head ; rostral hook short, not extending to below anterior margin of upper eye. Maxillary extending to below posterior half of

* M = mean of the range.

fixed eye ; angle of mouth extending to below vertical from middle of fixed eye, much nearer to tip of snout than to branchial opening. Tip of snout to angle of mouth 38.88-50.00 (M=44.58). Angle of mouth to branchial opening 53.84-61.11 (M=57.14) percent of length of head.



Text-fig. 1. Ocular side of *Cynoglossus itinus* (Snyder). 125.0 mm SL

Scales : Ctenoid on ocular side including those on lateral lines ; cycloid or weakly ctenoid on blind side of head and ctenoid behind head.

Lateral-Line System : Three lateral lines on ocular side, dorsolateral line slightly undulated, runs backward along dorsal contour of body entering dorsal fin usually between the 18th and 20th dorsal ray counted from the rear ; mid lateral-line with 70-79 (M=74) scales ; 12-14 (M=13) scales transversely between dorsal and midlateral lines : ventrolateral line present. No lateral line on blind side.

Fins : Dorsal with 105-114 (M=108), anal with 82-88 (M=86)

rays : Caudal rays 8 (in 8 alizarine stained specimens).

Vertebrae : 52-54 (M=53.5), comprising 9 abdominal and 43-45 caudal elements in 8 specimens (alizarine stained).

Colouration : Ocular side light brown with blackish brown spots and blotches ; median fins with blackish brown streaks ; blind side yellowish white in preserved specimens.

TABLE 1. Comparison of morphometric and meristic characters of specimens of *C. itinus*, off Visakhapatnam and Kakinada with the description given by Ochiai (1963) and Menon (1977).

Sl. No.	Character	Region		
		Bay of Bengal (Present collections) No. of specimens : 30	Japan (Ochiai)* No. of specimens : 58	Japan and Hong Kong (Menon) No. of specimens : 8.
1.	Depth of body (% of SL)	23.00-29.12(M = 27.17)	25.64-30.30(M = 27.77)	25.40-28.64(M = 27.07)
2.	Length of head (% of SL)	18.86-23.30(M = 20.97)	17.85-21.73(M = 19.60)	19.44-21.61(M = 20.56)
3.	Diameter of eye (% of HL)	8.69-16.66(M = 13.36)	9.09-20.00(M = 15.62)	10.87-15.38(M = 13.22)
4.	Interorbital width (% of HL)	1.92- 4.54(M = 3.35)	—**	2.08- 7.14(M = 4.35)
5.	Snout length (% of HL)	28.84-37.50(M = 33.35)	26.31-38.46(M = 31.25)	25.00-30.43(M = 27.24)
6.	Snout to angle of mouth (% of HL)	38.88-50.00(M = 44.58)	—**	36.54-45.24(M = 40.55)
7.	Angle of mouth to branchial opening (% of HL)	53.84-61.11(M = 57.14)	—**	55.77-69.05(M = 61.94)
8.	Mid lateral line scales on ocular side	70-79(M = 74)	68-77(M = 72.8)	71-78(M = 74)
9.	Interlinear scale rows	12-14(M = 13)	12	12-14(M = 13)
10.	Dorsal fin rays	105-114(M = 108)	100-114(M = 105.4)	102-103(M = 102)
11.	Anal fin rays	82-88(M = 86)	79-87(M = 84.2)	83-86(M = 84)
12.	Caudal fin rays	8	8-10	8
13.	Vertebrae	52-54	50-54	50-52

* The body dimensions given in fractions are converted to percentages.

**Data not given.

Remarks : The present specimens agree with the description of *C. itinus* given by Ochiai in all respects (Table I). However, it differs from the description given by Menon in having higher number of dorsal rays (105-114 instead of 102-103) and in having a longer snout (mean length 33.35 instead of 27.24 percent of length of head). These differences may be attributed to geographic variation.

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REFERENCES

- MENON, A. G. K. 1977. A systematic Monograph of the Tongue Soles of the Genus *Cynoglossus* Hamilton Buchanan (Pisces, Cynoglossidae). *Smithsonian Contributions to Zoology*, no. 238, 129, pp, 48 figs., 21 plates.
- OCHIAI, A. 1963. *Soleina Fauna Japonica*, 79-82 : Pl.XVII.