## SYSTEMATIC POSITION OF THE SCIAENID CORVINA CAROUNA CUVIER 1830

## R. S. LAL MOHAN\* Central Marine Fisheries Research Institute, Cochin.

Cuvier (1830) described Corvina carouna based on the specimens collected by Mr. Dussumier from the Malabar coast. Later, Day (1878) and Weber and de Beaufort (1936) synonymised it with Johinus carutta. Trewavas (1977) has considered it to be the synonym of Corvina belangeri Cuvier 1830, a species which has many common characters of Johnius carouna (Cuvier). But when the type specimen of Corvina carouna Cuvier from Museum Nationale d' Histoire Naturelle, Paris, was examined, it was found to be a valid species, occurring commonly in the Cochin backwaters and estuaries.

Day (1878) was inclined to consider it as a synonym of Johnius carutta due to the presence of an indistinct white streak along the lateral line. But he was not sure of his judgment, because, unlike J. carutta, the scales of Johnius carouna were strongly ctenoid and the anal spine was less strong. Trewavas (1977) treated it as synonym of J. belangeri as it was found to have ctenoid scales on the head and anterior part of the body, a strong anal spine and less number of gill rakers. Though J. carouna (Cuvier) shares with J. belangeri a few characters such as broad villiform teeth, inferior mouth, strong second anal spine and strongly ctenoid scales on nape and body, it differs from J. belangeri in having 10 dorsal spines (usually 9 dorsal spines in J. belangeri), less number of lateral line scales (5|1|9-12 in J. carouna and 8-9|1|10-14 in J. belangeri) and more number of gill rakers in the lower arm of the gill arch. (Table 1). They differ in the colouration also. The ventral part of J. carouna is yellowish with golden tinge, where as in J. belangeri it is deep grey and the ventral fins and the tip of anal fin are black or deep grey. However, J. carouna can be easily distinguished from J. carutta as it does not have the characteristic white streak present along the lateral line of J. carutta.

Notes 375

## Iolnius carouna (Cuvier)

(Fig. 1)

Corvina caronna Cavier, 1830, Hist, Nat. Poiss., 5; 125.

Johniav carouna Fischer and Whitehead, 1974, F.A.O. identification sheets, 3 Sciencid 6 (Name only); Mohan, 1977 Ph.D., thesis, Madurai University, (Unpublished)

Corvina carutta Day, 1878. Fishes of India: 192-193.

Corvina belangere (nec. Cuvier) Trewayas, 1977. Trans. zoot. Soc. Lond., 33: 253-541.

D. X. J. 27-29; P. [5-17; A R. 7; L1., 46-49; Ltr. 5][1]19-12; Gr. 4-5]1]10-14.

In standard length, head length 27.1-30.6; eye diameter 5.5-7.0; should length 5.6-8.1; upper jaw 8.5-10.4; lower jaw 5.4-7.5; pectoral fin 15.1-17.3 second anal spine 11.7-14.2 (Table 1) (Measurements in %).

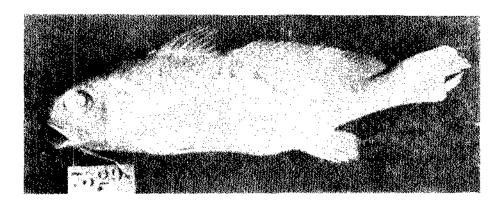


FIG. 1. Type specimen of Cocrina caronna Cuvier, Not. Hist. Mus. Paris. No. 7529. Type locality: Malabar: collector: Dussumier; Total length: 150 mm.

Month inferior, shout projects beyond upper jaw. Outer row of feeth of upper jaw enlarged, inner row villiform; lower jaw with a band of villiform teeth; preopercie serrated; tip of shout with 3 rostral pores, marginal pores well-developed; shout margin deeply lobulated; lower jaw with five mental pores. Swim bladder hammer shaped with 15 lateral arborecent tubules, the first branch extends to head through the transverse septum dividing it into two, the inner tubule branching under the skall and the outer one extending laterally to end in a palmate tip under the skin of the branchial wall covering the supracleithrum Otoliths (Sagitta) enlarged anteriorly with an obliquely truncated 'head' and the 'tail' with a deep hollow cone connected to the 'bead' by a shallow groove

TABLE 1. Morphometric and meristic characters of Corvina carouna cuvier and Johnius belangeri Cuvier.

	Corvina carouna Cuvier												Johnius belangeri Cuvier				
	1	2	3	4	5	6	Range	Mean %	1	2	3	4	5	6	7	Range in	Mean %
Standard length (in mm)	129	145	124	99	106	104			155	113	140	162	112	111	116		
Head length	35	43	38	27	30	30	27.1-30.6	28.6	49	34	39	52	32	34	31	26.7-32.0	29.5
Eye diameter	9	8	7	7	6	6	5.5- 7.0	6.1	12	10	11	11	8	9	9	6.8- 8.8	7.9
Interorbital length	8	11	10	7	9	8	6.2- 8.5	7.4	12	8	10	13	8	7	9	7.0- 8.0	7.3
Snout length	10	10	10	7	6	6	5.6- 8.1	6.8	10	7	8	11	8	8	9	6.2- 7.7	6.7
Upper Jaw length	11	15	13	10	10	10	8.5-10.4	9.7	17	12	14	18	11	11	13.	9.9-11.2	10.5
Lower jaw length	7	11	9	7	7	7	5.4- 7.5	6.1	12	8	11	13	7	7	9	6.2- 7.8	7.2
Pectoral fin length	20	24	20	15	18	18	15.1-17.3	16.3	30	23	25	31	20	22	24	17.8-20.6	19.2
2nd anal spine length	16	17	18	14	14	13	11.7-14.2	13.0	19	14	15	13	13	15	13	8.0-13.5	11.3
2nd dorsal fin length	22	24	20	17	17	20	16.0-19.2	16.9	26	20	23	26	20	17	16	13.8-17.7	16.2
Hist Dorsal fin spines (no)	10	10	10	10	10	10	10	10	9	9	9	10	9	9	9	9-10	9.1
Dorsal fin rays	28	29	27	28	29	27	27.0-29.0	28	28	27	29	30	30 1	30	30	27-30	29.1
Lateral transverse scales																	
Upper	3	5	5	5	5	5	5	5	8	9	8	8	8	8	9	8-9	8.2
Lower	9	10	10	12	10	9	9.0-12.0	10	14	13	13	12	13	13	13	12-14	13.2
Gill rakers																	
Upper	5	4	5	5	5	5	4.0- 5.0	4.8	4	4	4	4	4	4	4	4	4
Lower	10	11	11	14	11	11	10- 14	11.3	9	9	9	8	8	9	9	8-9	8.7
Specimen No.	MNHN Paris CMFRI Clt. Fish No.									CMFRI No. 315 F 89 655							
	_	lo. 7:		1	2	3	4		1	2	3	4	5	6	7		

NOTES 377

Scales on opercle, pre-opercle, nape and body ctenoid; cheeks with cycloid scales; Lateral line originates above the opercle and terminates at the caudal tip; 1st dorsal spine minute, 3rd and 4th longest, dorsal fin deeply notched, spines strong, membrane tough; second anal spine strong, 2/3 of first anal ray and 1.75 of eye diameter; first ray of pelvic fin filliform. Gill-rakers weak, dentate on one side.

Body grey dorsally and hyaline to yellow ventrally. First and second dorsal fins light grey. Opercle with a grey blotch; pelvic and anal fins with a yellowish tinge.

Occurs in backwaters, estuaries and shallow costal areas along the southwest coast of India and southeast coast of India.

I am thankful to Dr. Marie-Louise Bouchot, Curator, Museum Nationale d' Historie Naturelle, Paris for lending the type specimen of *Corvina carouna* Cuvier for examination.

## REFERENCES

CUVIER, G. 1830. In: Historie naturelle des Poisson. 5, Paris.

DAY, F. 1878. The Fishes of India; London.

- FISCHER, W. AND P. WHITEHEAD. 1974. F.A.O. identification sheets for fishery purposes: 33, Sciaenids 6.
- MOHAN, R. S. LAL. 1977. Studies on the fishes of the family Sciaenidae of India. Ph.D. Thesis, Madurai University, Madurai (Unpublished).
- Trewaves, E. T. 1977. The sciaenid fishes (Croakers or Drums) of Indo-West Pacific. Trans. Zool. Soo, London 33: 253-541.
- WEBER, M. AND DE BEAUFORT, L. F. 1936. The fishes of Indo-Australian Archpelago. 7: 481-547; Brill, Leiden.