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THE MARINE FISHERIES INFORMATION SERVICE: Technical and Extension Series envisages the rapid dissemination of information on marine and brackish water fishery resources and allied data available with the National Marine Living Resources Data Centre (NMLRDC) and the Research Divisions of the Institute, results of proven researches for transfer of technology to the fish farmers and industry and of other relevant information needed for Research and Development efforts in the marine fisheries sector.

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**THE BRAMBLE SHARK *ECHINORHINUS BRUCUS* (BONNATERRE)
LANDED AT COCHIN***

Two female sharks having the diagnostic characters of *Echinorhinus brucus* (Bonnaterre) were caught by hooks and line fishermen southwest of Cochin about 60 km from the shore from depths of 120-160 metres on 9 February 1984 (Figs. 1 & 2). The specimens weighing about 100 kg, were auctioned for Rs. 500/- and

were immediately taken to Kuravilangad, an interior market 60 km from Cochin, along with about 350 kg of *Eulamia melanoptera* and 30 kg of *Zygaena tudes* which were together auctioned for Rs. 2,700/-. Since this deep water shark (*Echinorhinus brucus*) is of very rare occurrence and has so far not been reported from commercial fish landings, a brief description of the species is given below.

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Table 1. *The body measurement of Echinorhinus brucus (Bonnatere) (in mm) landed at Cochin Fisheries Harbour*

	Specimen-1		Specimen-2	
	mm	Percentage proportion in total length	mm	percentage Proportion in total length
Total length	2,280	—	1,970	—
Weight (kg)	60	—	40	—
Trunk: at origin of pectoral (depth)	510	22.3	335	17.0
at origin of 1st dorsal	440	19.3	286	14.4
Snout: length in front of mouth	245	10.7	202	10.3
in front of eye	220	9.6	181	9.2
Eye: vertical diameter	35	1.5	30	1.5
interorbital distance	269	11.5	225	11.4
Mouth: width	260	11.4	216	11.2
Distance from snout to: 1st dorsal	1,500	65.7	1,390	70.5
2nd dorsal	1615	70.8	1,500	79.1
pectoral	700	30.7	610	30.9
pelvic	1,480	65.9	1,248	63.3
genital opening	1,690	74.1	1,430	72.5
1st gill opening	465	20.3	430	21.8
First dorsal fin: vertical height	180	7.8	175	8.8
length of base	155	6.8	105	5.3
Second dorsal fin: vertical height	150	6.5	136	6.8
length of base	115	5.0	100	5.0
Caudal fin—upper lobe: vertical height	285	12.5	230	11.6
length of base	448	19.6	350	18.0
Pectoral fin: vertical height	290	12.7	260	13.1
length of base	190	8.3	140	7.1
Pelvic fin: vertical height	260	11.4	195	9.9
length of base	300	13.1	260	13.2
Interspace between 1st and 2nd dorsal	115	5.0	116	5.8
Distance from origin to origin of pectoral and pelvic fins	610	26.7	550	27.9
second dorsal and caudal fin	110	4.8	115	5.8

The colour of the specimens was pale dark dorsally and pale white ventrally. The body was covered with numerous whitish tuberculated scales; each scale with a basal shield of varying size and a sharp pointed spine, which is characteristic of the species. However, some of the spines were blunt. The lateral line ran along

the upper half of the body commencing from the first gill opening to the tip of the upper caudal lobe. The body measurements of the specimens in mm along with the proportional dimensions in percentage of total length are given in Table 1.

The bramble shark *Echinorhinus brucus* (Bonnaterre) usually occurs in the upper continental slope and the deeper neritic waters of the Atlantic, Mediterranean and Indo-Pacific. The presence of the bramble shark along the continental slope of the west coast of India was first brought to light by Silas (*Bull. cent. mar. Fish. Res. Inst.*, 12, 1969) during the exploratory fishing cruises of R. V. *Varuna*. Subsequently Silas *et al.* (*Curr. Sci.*, 38 (5), 1969), Nair and Lal Mohan (*Indian J. Anim. Sci.*, 41 (10), 1971) and Silas and Selvaraj (*J. mar. biol. Ass. India.*, 14 (1), 1972) have reported the



Fig. 1. Dorsal view of the bramble shark *Echinorhinus brucus* (Bonnaterre) landed at Fisheries Harbour, Cochin.

occurrence of the species along the continental slope of the southwest coast of India and Gulf of Mannar from depths of 215 to 405 metres during the cruises of R. V. *Varuna*, M. V. *Blue Fin*, M. V. *Velameen* and M. V. *Klaus Sunnana*.

These deep water sharks were caught when the artisanal fishermen from Colachel were fishing with hooks and line in the hitherto underexploited fishing grounds in deeper waters. The hooks and line fishery is conducted at slightly shallower fishing grounds (40-70 m) for mainly sharks and at deeper waters (80-160 m) for 'kalava.'



Fig. 2. Anterior view of the bramble shark *Echinorhinus brucus* (Bonnaterre) landed at Fisheries Harbour, Cochin.

At present about 8 units are operated from Cochin Fisheries Harbour.

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