

The Hammerhead Sharks in Ceylon Seas (Family Sphyrnidae)

T. P. GOONEWARDENE*

The hammerhead sharks comprising the family *Sphyrnidae* are easily separable from other large sharks by their possession of a flattened head with lateral projections—the “hammer”-or “bonnet” shaped head. Furthermore, the shape of the head alone can be used as the character for distinguishing the different species of this family, present in tropical and temperate seas (Gilbert, 1967).

Four species are captured from the sea surrounding Ceylon. They are identified as *Sphyrna blochii* (Cuvier, 1817), *S. mokarran* (Ruppell, 1835), *S. lewini* (Griffith and Smith, 1834) and *S. zygaena* (Linnaeus, 1758), using the characters noted in the comprehensive taxonomic revision of Sphyrnid sharks by Gilbert (1967). Gilbert had also stated there (p. 36) that *S. zygaena* has an antitropical distribution and therefore does not occur in the intervening warm tropical seas. However, the present study confirmed the previous listing of this species in the tropical seas around Ceylon (Misra 1947, Munro 1955). Photographs of the ventral surface of the head are shown in Fig. 1 and the distinguishing characteristics of the head are noted in the following key to the species :—

Fig. 1

KEY TO SPECIES OF SPHYRNA IN CEYLON SEAS

(Reference is directed to Figure 1)

1. Eyes and nostrils widely separated (the eyes at the end of the lateral head extensions, and the nostrils situated more than half the distance away from the eye to the median or central point of the anterior margin of head)*S. blochii*

Eyes and nostrils close together (near or at the ends of the lateral head extensions)2.

2. Lateral extensions of the head are transverse, and not sloping backwards at ends ; inner narial groove absent ; (in adult specimens, a line joining the ends of the posterior margin of head lateral extensions, lies forwards of the line joining the corners of the mouth) *S. mokarran*

Lateral extensions of the head slope backwards at ends ; inner narial groove present ; (a line joining the ends of the posterior margin of head extensions lies behind a line joining the corners of the mouth, in young and adult specimens)3.

3. Anterior margin of the head with a distinct deep median notch ; inner narial groove extends less than one half the distance from nostril to median or central point of the anterior margin of head (groove not visible in Fig. 1)*S. lewini*

The central part of the anterior margin of head either convex or truncate and without a deep notch ; inner narial groove extending more than one half of the distance from nostrils to the median or central point of the anterior margin of head (groove not visible in Fig. 1)*S. zygaena*

* Fisheries Research Station, P. O. Box 531, Colombo 3, Ceylon.

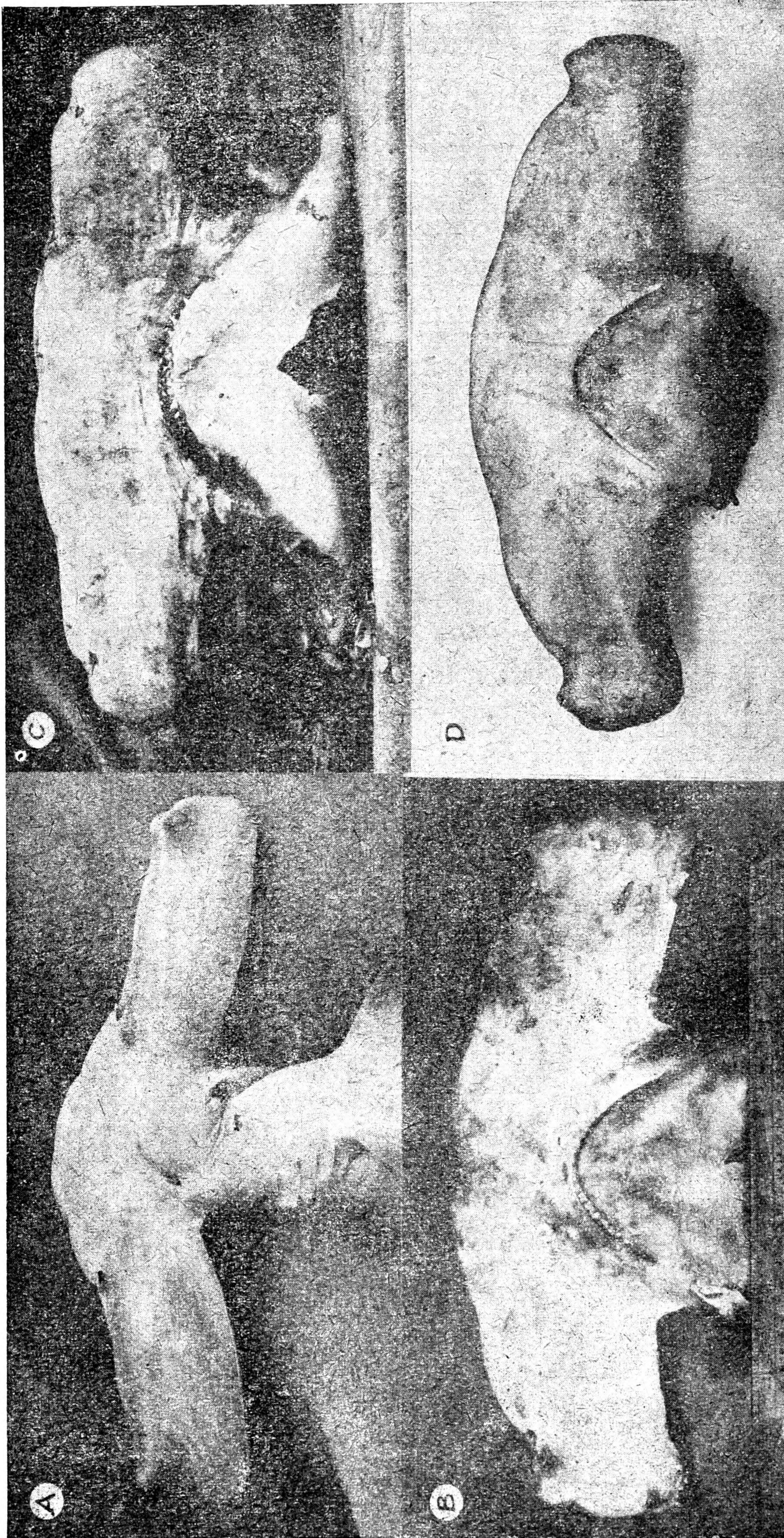


Fig. 1. A. *S. blochi* B. *S. lewini* C. *S. mokarran* D. *S. zygaena*

DISTRIBUTION OF HAMMERHEAD SHARKS IN CEYLON FISHERIES

S. blochii is captured with set lines and drift nets from the shallow sea overlying the wide continental shelf off the northwest coast (Palk Bay and Gulf of Mannar). The larger specimens landed do not exceed five feet in length ; it is the smallest of the four species recorded here.

S. mokarran is taken on set lines from the deep sea. This species is rarely found in fish landings

S. lewini and *S. zygaena* are the commonly obtained hammerhead sharks, with individual specimens often reaching lengths exceeding six feet. They are captured on trolling lines, floating longlines and drift nets (mesh 4 to 6 inches) from the deep sea beyond the relatively narrow continental shelf encircling much of Ceylon's coastline.

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