*Bull. zool. Surv. India*, 7 (1) : 37-39, 1985

# GENERIC RELATIONSHIP AND STATUS OF THE SCYLIORHINID SHARK, *SCYLIORHINUS (HALAELURUS) SILASI* TALWAR, 1974 (CHONDRICHTHYES : SELACHII, SCYLIORHINIDAE)

L. J. V. COMPAGNO,
*Tiburon Centre for Environmental Studies,*
*San Francisco State University,*
*Tiburon, California 97924*

AND

P. K. TALWAR,
*Zoological Survey of India*
*Calcutta-700 016.*

ABSTRACT

The taxonomic status and generic relationship of the scyliorhinid shark, *Scyliorhinus silasi* Talwar, are discussed, based on re-examination of the type material and some topotypes. This species is now assigned to the genus *Cephaloscyllium* Gill.

## INTRODUCTION

Talwar (1974) described *Scyliorhinus* (*Halaelurus*) *silasi* from four specimens collected off Quilon, Kerala at 300 m depth. The holotype and three paratypes, are in the respository of the Zoological Survey of India, Calcutta. Rama Rao (1975) reported this species as *Scyliorhinus natalensis* (Regan) on the basis of the same study material.

Springer (1979), in his revision of the family Scyliorhinidae, included *S. silasi* under the description of *Halaelurus quagga* (Alcock, 1899) and noted that its status was doubtful pending determination of whether or not the species had a supraorbital crest on its cranium. Smith (1980) evidently followed Springer in listing *silasi* under quagga in her *Catalogue* of the fishes of the Western Indian Ocean.

We have reexamined the type material of *Scyliorhinus silasi* and compared it with the holotype of *Scyllium quagga* Alcock, 1899 (ZSI F 751/1, 273 mm adult male). The two species are neither conspecific nor congeneric. A discussion on the status and generic relationship of *Scyliorhinus* (*Halaelurus*) *silasi* follows.

### Cephaloscyllium silasi (Talwar)

(Fig. 1)

*Scyliorhinus* (*Halaelurus*) *silasi* Talwar, 1974, *J. mar. biol. Ass. India*, **14** (2) : 779, fig. 1 (type-locality : off Quilon, Kerala, 300m).

*Scyliorhinus natalensis* (*nec* Regan) Rama Rao, 1975, *J. Bombay nat. Hist. Soc.*, **72** : 218.

*Halaelurus silasi* : Jhingran, 1982, *Fish and Fisheries of India* : 6 (name only).

*Material examined* : ZSI F 6562/2, ♀, 318 mm, off Quilon, Kerala State, depth about 300 m, 3 March 1971, holotype ; ZSI F 6563/2, ♂, 360 mm, collected along with holotype ; ZSI F/6564/2, ♀, 215 mm, off Quilon, depth about 300 m, 4 March 1971, paratype ; ZSI F 6565/2, ♂, 188 mm, collected along with the second paratype ; ZSI F/7572/2, 5 exs., 151-192 mm, off Quilon (Kerala), depth about 250 mm, 4-6 February 1977.

*Diagnosis* : A scyliorhinid shark with a supraorbital crest on cranium ; no labial furrows along jaws (a vestigial furrow often

present at mouth angle) ; snout very broad, short, wedge-shaped ; nostrils with broad anterior nasal flaps, without barbels but with strong medial keels, reaching mouth but well separated medially ; head and body very broad and stout, head and body about as long or only slightly shorter (young) than tail ; first dorsal fin with origin above pelvic bases ; second dorsal fin about half as large at first, with its base entirely above base of anal fin ; caudal fin without a crest or enlarged denticles on its dorsal and ventral margins ; and colour pattern simple with relatively few, broad, dark dorsal saddle markings on a lighter background ; size at maturity relatively small, male adult at 360 mm.

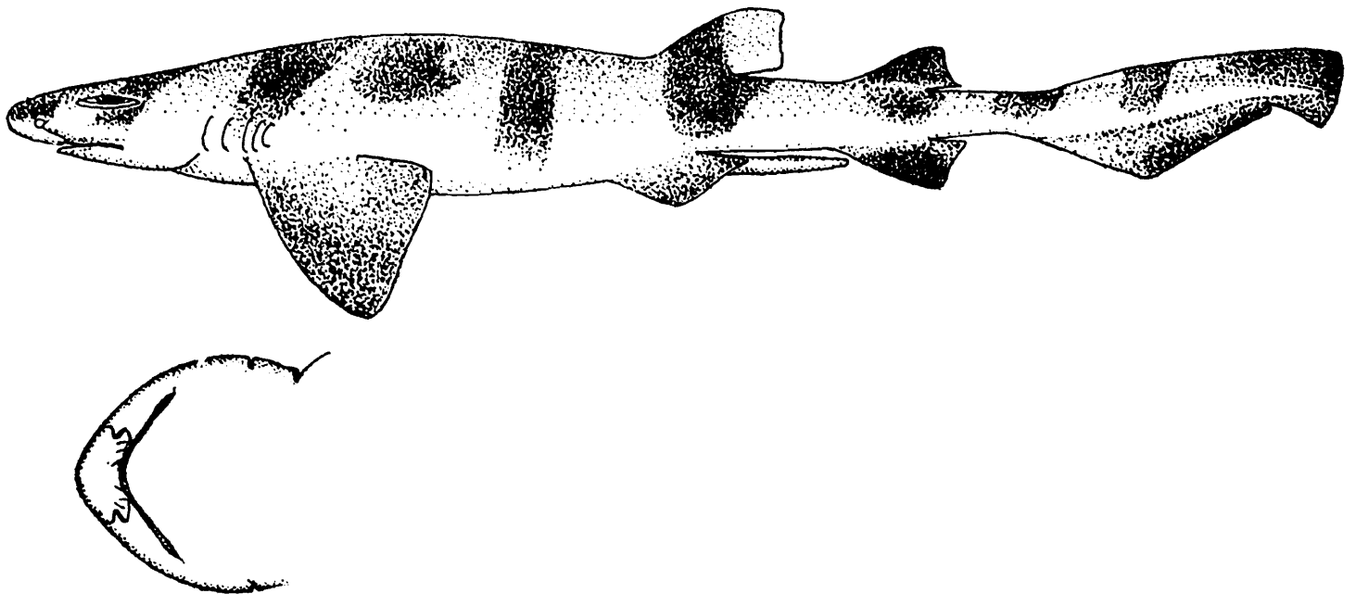

Fig. 1. *Cephaloscyllium silasi* (Talwar), paratype, 360 mm adult male.

## Discussion

*Scyllium quagga* Alcock lacks a supraorbital crest and on this and other characters falls in the genus *Halaelurus* Gill ; it is particularly close to *H. natalensis* (Regan) and *H. lineatus* Bass, D' Aubrey & Kistnasamy, 1975, in its colour pattern, pointed snout, heavy ridges over the eyes (fomed of the pro-longed preorbital and postorbital processes), gill openings dorsolateral and well above pectoral bases, and analfin far anterior to the second dorsal fin. *Scyliorhinus silasi*, on the other hand, has a supraorbital crest on its cranium and falls in the genus *Cephaloscyllium* Gill, 1862 on the following additional characters : labial furrows vestigial, not extending onto lower jaw ; first dorsal fin about twice size of second, with its origin above pelvic bases ; head and body very broad and stout, the length of head and body from snout to vent about equal or slightly less (young) than tail from vent to caudal tip ; snout very short ; anterior nasal flaps well separated medially ; second, dorsal with base entirely above anal base. We have no evidence if this species can inflate its stomach like some other members of the genus.

Within *Cephaloscyllium C. silasi* is a very distinct species, separable from all other species by the combination of its simple colour pattern, with a few broad dark saddle markings and no small spots (see Talwar, 1974, fig. 1), wedge-shaped head in dorso-

ventral view, anterior nasal flaps broad, not attenuated, and reaching mouth, claspers very long and slender, and apparent small size (male mature at 360 mm).

ACKNOWLEDGEMENTS

The authors are thankful to Dr. B. K. Tikader, Director, Zoological Survey of India, Calcutta for facilities.

REFERENCES

RAMA RAO, K. V. 1975. New records of off-shore fishes from the west coast of India. *J. Bombay nat. Hist. Soc.*, **72** : 218.

SMITH, M. M. 1980. A list of fishes recorded or described from the western Indian Ocean. (Unpublished manuscript).

SPRINGER, A. 1979. A revision of the cat-sharks, family Scyliorhinidae. *NOAA Tech. Rep. NMPS Circular* 422 : 1-157.

TALWAR, P. K. 1974. On a new bathypelagic shark, *Scyliorhinus* (*Halaelurus*) *silasi* (Fam. : Scyliorhinidae) from the Arabian Sea. *J. mar. biol. Ass. India*, **14** (2) : 779-783.