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Chiasmodontidae: Swallowers.

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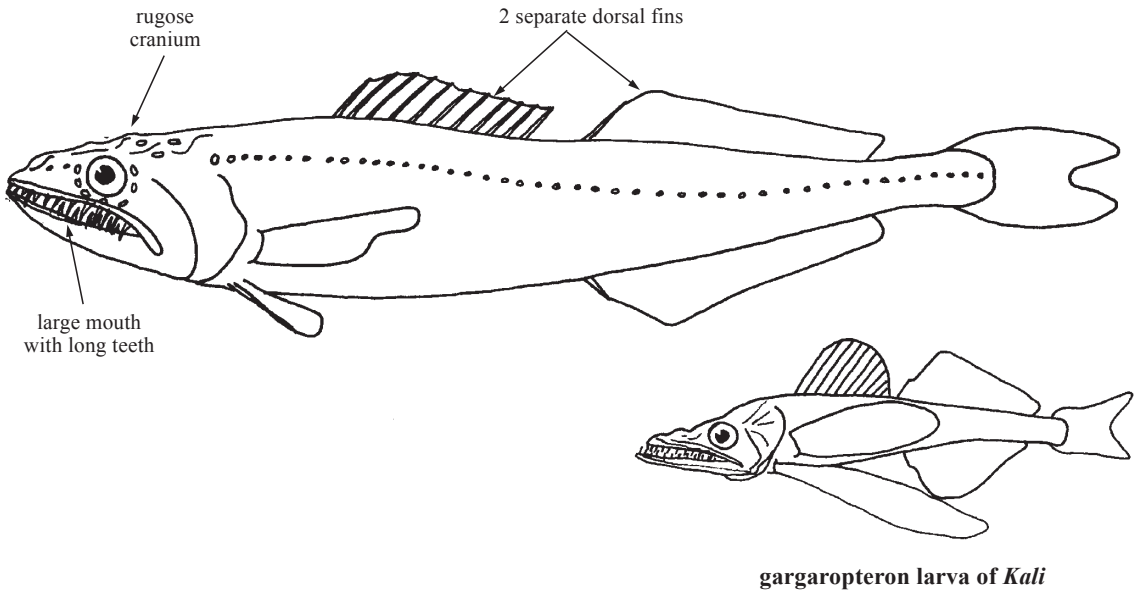
Suborder TRACHINOIDEI

CHIASMODONTIDAE

Swallowers

by J.D. McEachran, Texas A & M University, USA and T. Sutton, University of South Florida, USA

Diagnostic characters: Small to moderate-sized (to about 26 cm total length). Body elongate and moderately compressed. Snout acute or rounded, longer than eye diameter; **dorsal surface of head rugose and pitted by sensory pores**; nostrils paired, anterior and posterior openings close set and pore-like; mouth terminal, large, and nearly horizontal; **premaxilla and maxilla slender, non-protractile, firmly joined distally**, and maxilla extending posterior to eye. Jaw teeth long and slender, arranged in 1 or 2 rows or in 3 to 5 bands. Teeth present in palatine and present or absent in vomer. **Gill rakers absent or replaced by gill teeth fused to bony plates**. Branchiostegal rays 6 or 7. Gill membranes separate and free of isthmus. **Separate dorsal fins**, first short with 7 or 8 flexible spines, second 0 or 1 flexible spine(s) and 18 to 29 segmented rays. Anal fin with 0 or 1 flexible spine and 17 to 29 soft rays; pectoral fins with 9 to 15 soft rays. Body naked (most adults), covered with small projecting spinules (most larvae or juveniles), or with 2 or more rows of stout, projecting prickles. Lateral line a series of distinct pores along side of body. Photophores present (*Pseudoscopelus*) or absent. **Right and left sections of pelvic girdle separate from each other and free of pectoral girdles; total vertebrae 33 to 48. Gut very distensible and capable of holding large prey. Colour:** uniformly dark brown to black.



Habitat, biology, and fisheries: Oceanic worldwide at mesopelagic and bathypelagic depths; juveniles at shallower depths; many species distributed in more than 1 ocean. Species of *Kali* have distinctive juvenile stage (gargaropteron) with relatively long snout, pectoral, and pelvic fins compared to adults. Adult food consists of ray-finned fishes that approach or exceed the size of the predator. Rarely taken in deep midwater trawls. Of no commercial importance.

Remarks: There are about 17 nominal species and a number of undescribed ones in 4 genera. No recent synopsis of the family is available, and the genera *Pseudoscopelus* and *Chiasmodon* require revision; some of the listed species of the former may be synonyms. Two of the genera were revised by Johnson and Cohen (1974).

Similar families occurring in the area

None, no other mesopelagic or bathypelagic fishes have separate dorsal fins containing true spines and rugose head.

List of species occurring in the area

Note: all sizes in standard length.

Chiasmodon niger Johnson, 1884. To 25 cm. Tropical and subtropical Atlantic, Pacific, and Indian Oceans.

Chiasmodon subniger Garman, 1899. To 49 cm. E and W Atlantic.

Dysalotus alcocki MacGilchrist, 1905. To 22.5 cm. Tropical and subtropical Atlantic, Pacific, and Indian Oceans.

Dysalotus oligoscolus Johnson and Cohen, 1974. To 22.7 cm. Tropical and subtropical Atlantic, Pacific, and Indian Oceans.

Kali indica Lloyd, 1909. To 26.2 cm. Tropical and subtropical Atlantic, Pacific, and Indian Oceans.

Kali macrodon (Norman, 1929). To 26 cm. Tropical and subtropical Atlantic, Pacific, and Indian Oceans.

Kali macrura (Parr, 1933). To 12.3 cm. Tropical and subtropical Atlantic, Pacific, and Indian Oceans.

Kali normani (Parr, 1931). To 20.1 cm. Worldwide tropical.

Kali parri Johnson and Cohen, 1974. To 22.2 cm. Tropical and subtropical Atlantic Ocean, questionable from area.

Pseudoscopelus altipinnis Parr, 1933. To 10.1 cm. Temperate to tropical, W Atlantic and W Pacific.

Pseudoscopelus obtusifrons (Fowler, 1934). To 11.5 cm. Tropical W Atlantic and W Pacific.

Pseudoscopelus scriptus Lütken, 1892. To 13.4 cm. Tropical Atlantic and W central Pacific Oceans.

Pseudoscopelus scutatus Krefft, 1971. Maximum size unknown. Central Atlantic, questionable from area.

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