

**ASERAGGODES STEINITZI, A NEW SOLE FROM THE RED SEA**

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DURING study of the soleid fishes in the collections of Zoological Survey of India, I came across three specimens of *Aseraggodes* Kaup from the Red Sea obtained by Dr. A. G. K. Menon through the courtesy of Dr. Heinz Steinitz, Professor of Zoology at the Hebrew University of Jerusalem. These specimens were labelled as *Aseraggodes sinus arabici* Chabanaud, which also occurs in the same locality. However, none of the specimens belongs to this species, nor do they conform to the description of any of the other known species of *Aseraggodes*. I therefore describe them herewith as a new species in honour of Prof. Steinitz. The specimens are deposited in the collections of the Zoological Survey of India, one of the paratypes is deposited in the U.S. National Museum.

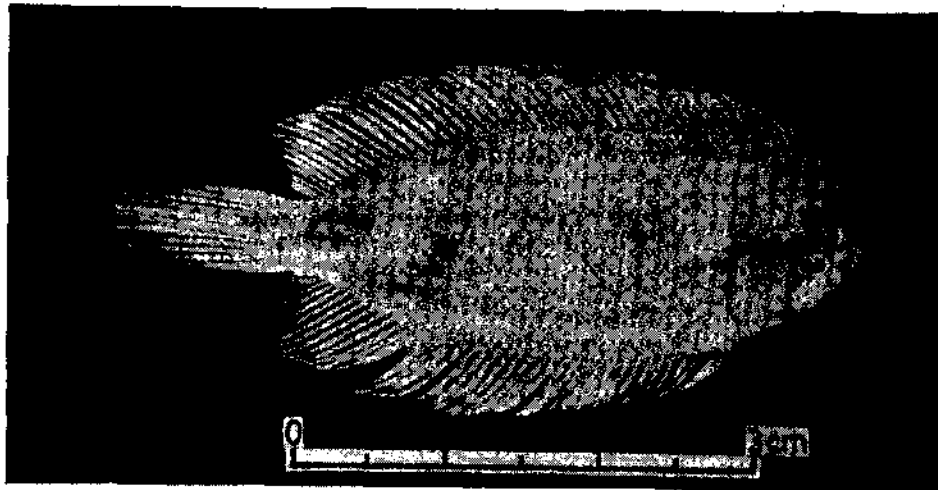


FIG. 1. *Aseraggodes steinitzi* sp. nov.

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(Fig. 1)

*Holotype*: 36 mm. in S.L., from Cundabilu Red Sea 15° 44'N./39° 53'E. 25th March 1962, obtained through Dr. H. Steinitz. Z.S.I. (F 6280).

*Paratypes*: 33 mm. S.L., obtained with the holotype U.S.N.M. (F——),

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24 mm. S.L., from Entedebir 15° 43'N./39° 54'E. in Red Sea, 7th April 1962, Z.S.I. (F——).

*Description*—Based on holotype and two paratypes. In counts and measurements, values of holotypes are followed in parentheses by the range of values of paratypes. D. 61 (58-62); A. 40 (39-41); V. 5(5); C. 14(16); L. L. 64(51-59). (From gill opening to Caudal base); L. tr. 19/26 (18-21/23-27).

Depth of body 41.7 (40.9-41.6); length of head 27.7 (24.2-27.0) (percentage of standard length). Snout 35.0 (36.5-43.7); eye 12.0 (12.2-15.0); interorbital distance 5 (3.0-6.2); postorbital distance 50 (53.9-56.2); distance from snout to angle of mouth 35.0 (37.5-38.5); distance from angle of mouth to gill opening 55 (53.8-56.2) (percentage of head length).

Body oblong, equally arched on both contours. Head blunt, snout overhanging mouth, which is subterminal, eyes close-set, separated by a short interorbital space. Maxilla reaches anterior 1/4th of the eye; lips not fleshy, neither ciliated; upper lip covers the lower, more so on blind side. Teeth minute, on blind side only. Anterior nostril tubular long; posterior nostril short, near the anterior margin of lower eye. Nostrils on blind side inconspicuous.

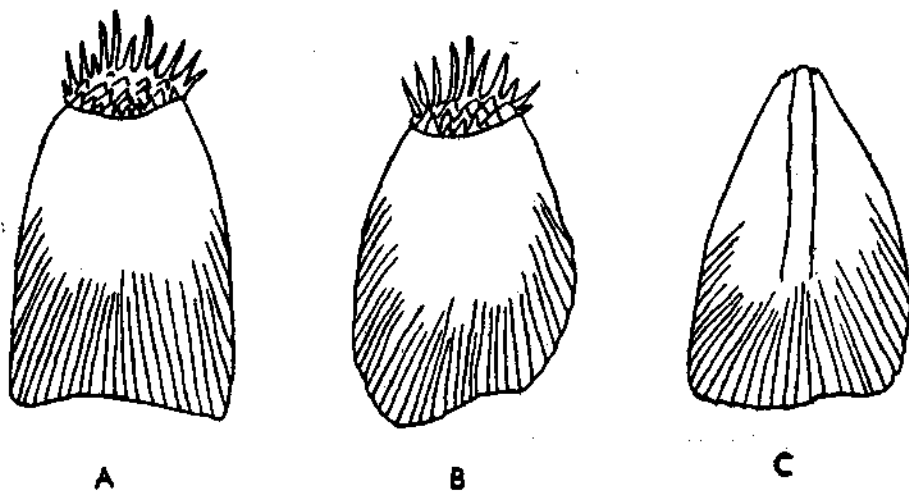


FIG. 2. Structure of scales of *A. steinitzi*  
 A. Scale on ocular side  
 B. Scale on Blind side.  
 C. Lateral line scale.

*Scales* (Fig. 2): Scales ctenoid on both sides with 10-15 marginal spinules and numerous grooves at their basal and lateral areas. Lateral line scales cycloid with numerous grooves at basal and lateral areas. Fins not scaled except caudal, which is scaled to its basal half.

*Sensory canal system* (Fig. 3): On ocular side, mediolateral line and a short supra orbital line are present. On blind side, in addition, there are cephalodorsal line and preopercular line, all well developed. Bunches of cilia present around the snout and beneath the lower jaw on blind side. No sensory pore at the base of vertical fin rays.

**Fins:** Dorsal fin inserted perpendicular to the dorsal edge of upper eye and reaches to the base of caudal peduncle. Rays of dorsal, anal and ventral fins unbranched. Those of caudal branched excluding first two rays on each side. Pectorals wanting. Ventrals separate, asymmetrical, that of the ocular side longer. Ventral rays long reaching the 4th ray of anal. Anus situated at the base of first anal ray, with urinary papilla above it.

**Colour in alcohol:** Light, with irregularly arranged brownish blotches (occasionally faint). Fins transparent with faint minute spots. Blind side pale brownish.

**Distribution:** Red Sea. (Dahlak Archipelago).

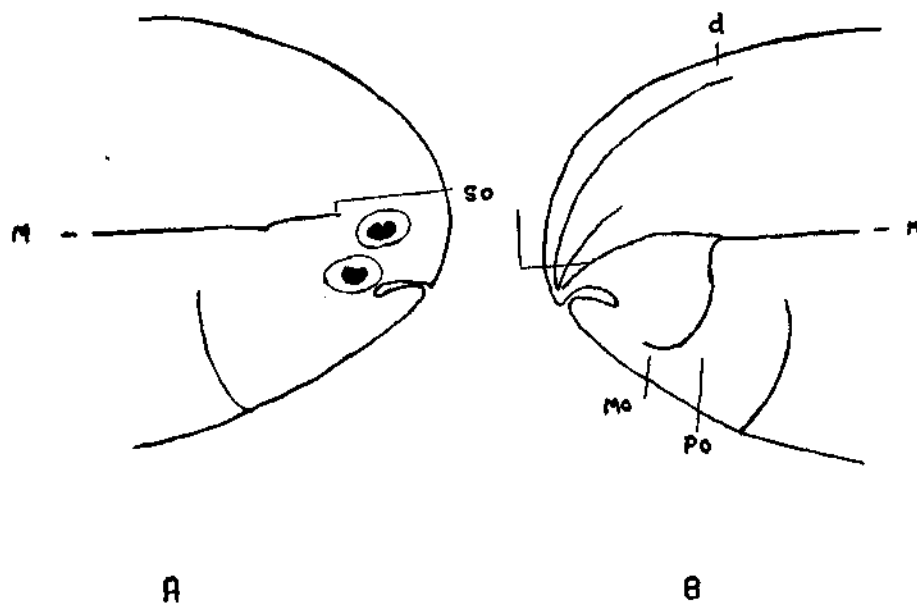


FIG. 3. Sensory canal system of ocular (A) and Blind side (B), in *A. steinitzi*.

d—Cephalo-dorsal line  
 M—Medio-lateral line  
 MO—Mandibulo-opercular line  
 PO—Pre-opercular line  
 SO—Supra-orbital line.

**Affinities:** *Aseraggodes steinitzi* resembles *Aseraggodes haackeanus* (Steindachner) in general characters but differs from it in the lesser number of caudal fin rays *i.e.* 14-16 vs. 18 (Waite, 1921) and the greater number of marginal spinules on the scales *i.e.*, 10-15 vs. 5 (Chabanaud 1931). It can be easily separated from *A. sinus arabici* Chabanaud, by its short trapezoidal scales (long and sub-rectangular on *sinus arabici*), the number of marginal spinules *i.e.* 10-15 vs. numerous and caudal fin rays 14-16 vs. 18.

A key for the identification of the species of *Aseraggodes* based on that of the Chabanaud (1931) is given below.

KEY TO THE SPECIES OF *Aseraggodes*

- 1a. Ventral fins united posteriorly and widely separated from anal fin.
- 2a. Head more than 30% of length.
- 3a. Depth 40% of length. Scales short, D.62-76  
*A. cyaneus* (Alcock)
- 3b. Depth more than 40% of length. Scales moderate D. 77.  
*A. herrei* Seale
- 2b. Head less than 30% of head.
- 4a. L. L. Scales more than 90.
- 5a. Eye 14% in length of head L. I. 94. Scales oval.  
Ventrols symmetrical. Many dark round blotches on ocular side.  
*A. morrowi* Chabanaud
- 5b. Eye 17% of head. L.I. 92. Scales rectangular.  
Ventral asymmetrical. Body with maroon or brown spots.  
*A. microlepidotus* Weber
- 4b. L.I. Scales less than 90.
- 6a. Depth more than 40% of body length. Scales oval.  
*A. kobensis* (Steindachner)
- 6b. Depth less than 40% of body length. Scales rectangular.
- 7a. Dorsal with more than 72 rays (72-80).  
*A. beauforti* Chabanaud
- 7b. Dorsal with less than 72 rays.
- 8a. Ventrols symmetrical.
- 9a. Dermal Keels associated with lateral line on blind side of head. Light brown, fins and body reticulated with brown.  
*A. kainus* (Gunther)
- 9b. No dermal Keels associated with lateral line on blind side (instead a row of tentacles).  
Greyish brown. *A. dubius* Weber
- 8b. Ventrols asymmetrical.
- 10a. Anal rays 53.  
*A. texturatus* Weber
- 10b. Anal rays 44.  
*A. Smithi* Woods
- 1b. Ventral fins separate from each other and narrowly separated from anal fin.
- 11a. Caudal with more than 17 rays.
- 12a. Eye more than 20% of head.  
*A. whitakeri* Woods
- 12b. Eye less than 20% (10-15%) of head.
- 13a. Marginal spinules of scales numerous and fine.

- 14a. Scales long, subrectangular. Dorsal 60-68; Anal 40-45. Pale with dark brown spots,  
*A. sinus arabici* Chabanaud
- 14b. Scales short trapezoidal. Dorsal 66-72; Anal 45-52. Reddish brown with yellowish spots or dark brown crosses.  
*A. guttulatus* Kaup
- 13b. Marginal spinules of scales few (5) and blunt (Scales trapezoidal. Dorsal 57-71; Anal 43-53. Faint yellow, with dark spots often confluent).  
*A. haackeanus* (Steindachner)
- 11b. Caudal with less than 17 rays (14-16) (Marginal spinules of scales not fine. Scales trapezoidal. Dorsal 58-62; Anal 39-41. Light brown with irregular brownish blotches).  
*A. steinitzi* sp. nov.

## SUMMARY

A new species of *Aseraggodes* Kaup viz., *A. steinitzi* from Red Sea is described and its affinities are discussed. A key for the identification of species of *Aseraggodes* is also given.

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