

NOTE

**The Indo-Pacific striped eel catfish, *Plotosus lineatus*
(Thunberg, 1787), (Osteichthyes: Siluriformes)
a new record from the Mediterranean***

DANIEL GOLANI

Department of Evolution, Systematics and Ecology, The Hebrew University of Jerusalem, 91904 Jerusalem, Israel.
E-mail: dgolani@cc.huji.ac.il

SUMMARY: The striped eel catfish, *Plotosus lineatus* (Thunberg, 1787), is recorded for the first time from the eastern Mediterranean coast of Israel. Seventeen specimens of this highly-venomous fish were caught by a commercial trawler at depths of 20 m. This species' occurrence in the Mediterranean is the result of migration from the Red Sea via the Suez Canal ("Lessepsian migration").

Key words: *Plotosus lineatus*, Lessepsian migration, eastern Mediterranean.

RESUMEN: LA PATUNA RAYADA DEL INDOPACÍFICO, *PLOTOSUS LINEATUS* (THUNBERG, 1787) (OSTEICHTYES: SILURIFORMES), UNA NUEVA CITA PARA EL MEDITERRÁNEO. – La Patuna Rayada, *Plotosus lineatus* (Thunberg, 1787), especie altamente venenosa, se cita por primera vez en el Mediterráneo en base a diecisiete especímenes capturados en la costa de Israel (Mediterráneo oriental) por un arrastrero comercial a una profundidad de 20 m. La aparición de esta especie en el Mediterráneo es el resultado de una migración desde el mar Rojo via el canal de Suez ("migración Lessepiana").

Palabras clave: *Plotosus lineatus*, migración Lessepiana, Mediterráneo oriental.

The opening of the Suez Canal in 1869 connected the tropical Red Sea with the eastern Mediterranean, known for its primarily temperate fauna. This man-made connection allowed the introduction of Red Sea biota into the Mediterranean, a phenomenon termed "Lessepsian migration" (Por, 1978; Boudouresque, 1999). Among the influx of species, 56 Lessepsian fish species have been recorded to date (Golani, 1998).

On 11 November 2001, seventeen specimens of *Plotosus lineatus* (Thunberg, 1791) (152-177 mm TL) were captured on a single trawl haul between 18:00 to 24:00 in the Mediterranean, at a depth of 20

m, on course between Ashdod and Ashqelon, Israel. The captain of the trawler S/D "Motti" was Capt. L. Ornoy. According to the fishermen on board, several specimens of *P. lineatus* were captured a week earlier but not preserved. The specimens captured on 11 November were deposited in the Hebrew University Fish Collection and received the catalogue number: HUJ 18665.

Description of the Mediterranean specimens

D₁ I, 4; D₂ 80-96; A 65-71; P I, 10-11; V 11-12. Body elongated, becoming compressed after the anus. Head large and broad (18.4-20.4%), predorsal

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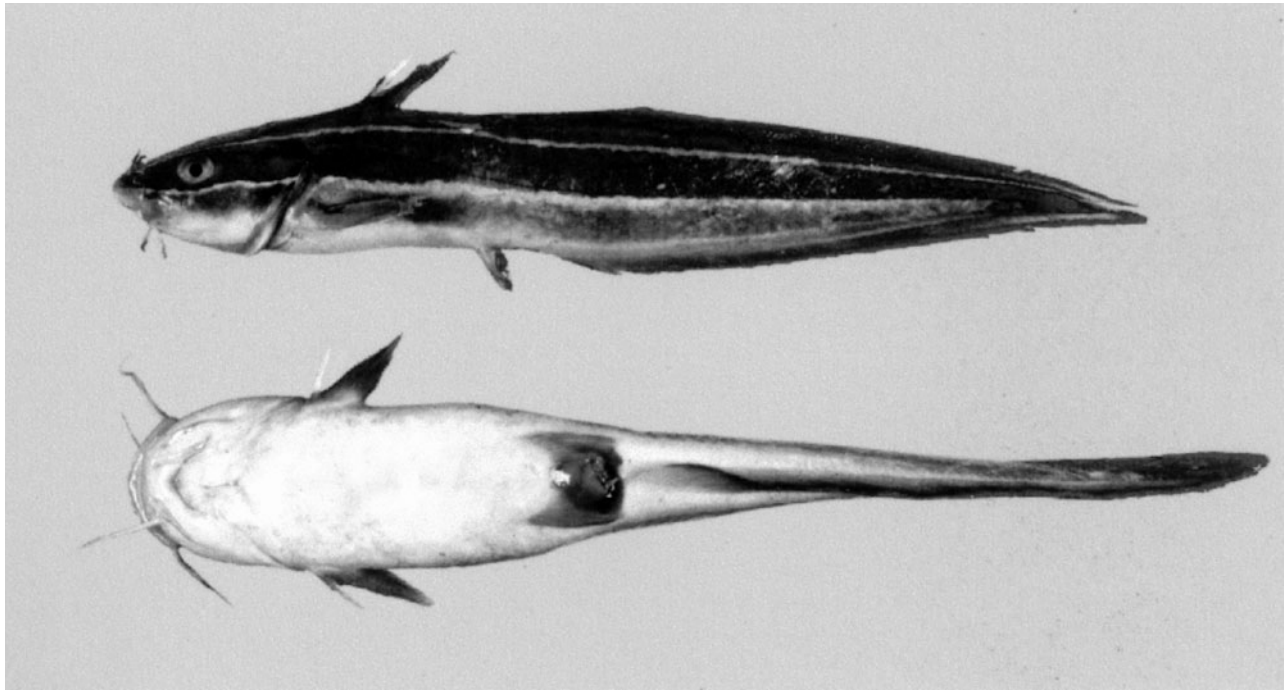


FIG. 1. – *Plotosus lineatus* (HUJ 18665) from the Mediterranean coast of Israel. Lateral view of 155 mm (TL) specimen (top) and ventral view of 173 mm specimen (bottom).

(34.7-39.5%), preanus (24.4-25.6%), all percentages of TL. Moderately large eye (17.4-21.3% of head length). Upper jaw overhanging; lips distinct. Conical teeth in upper jaw visible when mouth closed. Two irregular rows of teeth in the lower jaw, the anterior conical, becoming granular. Triangular vomerine patch of granular teeth. Four pairs of barbels; the nasal and the maxillary barbels reach the posterior edge of eye or slightly beyond. The inner mental barbel slightly shorter than the outer one. Gill rakers on first gill arch 5-7 + 16-17. First dorsal spine stout (its length 32.4-40.9% of head length) with anterior and posterior serration. Second dorsal fin long and confluent with anal fin. The pectoral-fin spine (its length 26.2-39.8 of head length) has upper and lower serration; it is easily detached from the rest of the fin. Smooth body without scales. A distinct dendritic organ made of folded tissue located behind anus.

Color: body brown with two narrow white stripes; both originating at the snout, one crossing above the eye, the other below. Second dorsal and anal fins paler than the rest of the body with a black margin. Ventral surface white, with brownish red dendritic organ. The color of the larger specimens is paler than that of the smaller specimens. All counts, measurements and color patterns agree with Gomon (1984), Randall (1995) and others.

Remarks

Plotosus lineatus, also known in older literature under its junior synonyms, *P. anguillaris* and *P. arab*, has a wide Indo-Pacific distribution. It occurs from the Red Sea and East Africa to Japan and Samoa. It is the only representative of Plotosidae in the Red Sea (Goren and Dor, 1994). Like most of the Lessepsian migrants, it has been recorded in the Gulf of Suez (Rüppell, 1837) and in the Suez Canal (Chabanaud, 1932).

Plotosus lineatus is the second marine catfish recorded from the Mediterranean. Golani and Sonin (1996) reported a single specimen of Atlantic *Arius parkii* Günther, 1864 (family Ariidae) from the coast of Israel.

Plotosus lineatus is an inshore species, inhabiting a variety of habitats, such as lagoons, sandy substrate and coral reefs. It is known as an euryhaline species entering estuaries and even fresh water. Golani (1993) showed that this type of habitat serves as a launching pad for many Lessepsian colonizers, since it constitutes preadaptation to the conditions in the Mediterranean.

Feeding habits of *P. lineatus* include crustaceans, mollusks and small fish. The author examined the gut contents of seven specimens from the Mediterranean; all were filled with remnants of macruran decapods

and a single brachyuran crab. In addition, several nematods were among the gut contents but it is unclear whether they were food items or parasitic worms.

The juveniles of *P. lineatus* form densely packed aggregations and move together, resembling a large object or animal. *P. lineatus* is notorious for being highly venomous and should be handled with great caution. The venom glands are located along the dorsal and pectoral spines. When the spines penetrate a foreign body, the venom is injected and causes great pain (Randall, 1983).

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