

First documented occurrence of *Selene vomer* (Carangidae) in Mar Chiquita coastal lagoon, Argentina

by

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RÉSUMÉ. - Premier signalement de *Selene vomer* (Carangidae) dans la lagune côtière Mar Chiquita (Argentine).

Un jeune spécimen de *Selene vomer* a été capturé dans la lagune côtière Mar Chiquita (Argentine). Il s'agit du premier signalement de ce Carangidae dans cette lagune. Les données morphométriques et méristiques relatives au spécimen sont incluses dans la diagnose. La présence d'espèces d'origines tropicales est fréquente dans les eaux côtières du nord de l'Argentine, probablement due à un apport d'eau subtropicale à l'ouest du courant de Malvinas.

Key words. - Carangidae - *Selene vomer* - ASW - Argentina - Mar Chiquita - Coastal lagoon - First record.

On 17 April 2004, a juvenile specimen of Lookdown *Selene vomer* (Linnaeus, 1758) (Fig. 1), was caught with a 18 m long, 1.8 m wide nylon beach seine-net with a 12 mm stretch mesh size and 4 m cod-end at Mar Chiquita coastal lagoon, Argentina (Fig. 2). Mar Chiquita is a temperate shallow coastal lagoon located in Buenos Aires province, at 37°45'S, 57°30'W, and is considered a World Reserve of Biosphere by the Coordination Council of the Man and Biosphere Program (MAB) of the Unesco. This lagoon has an area of approximately 46 km² and communicates with the sea through a channel at its southern end. Salinity fluctuates over a wide range between 0-36‰, depending upon the tidal stage and force and direction of the wind. Water temperature seasonally ranges between 3-25°C. Mean water temperature for April (the month of capture of the specimen) is 20.4°C (SD = 2.1°C).

Selene vomer is a shallow-water subtropical fish. It occurs in the western Atlantic from Maine, to Florida (USA), along coasts of Central and South America to Uruguay, including Bermuda and Gulf of Mexico (Cervigón, 1993). In the southwestern Atlantic, this species is known only from Rio Grande do Sul (Menezes and Figueredo, 1980), and Uruguay (Cousseau *et al.*, 1998); it was only once recorded in Argentine waters off Mar del Plata (Bordalé and Pozzi, 1933). *Selene vomer* is usually found over hard or sandy bottoms singly or in small groups. Adults are pelagic and epibenthic, and juveniles are found in estuaries or swimming freely along sandy beaches (Cervigón, 1993). The Lookdown is a roving predator of small fishes but also feeds on small crabs, shrimps, and worms. The maximum size thus far reported for this species is 48.3 cm total length (TL) (Cervigón, 1993).

Specimen identification was based on Berry and Smith-Vaniz

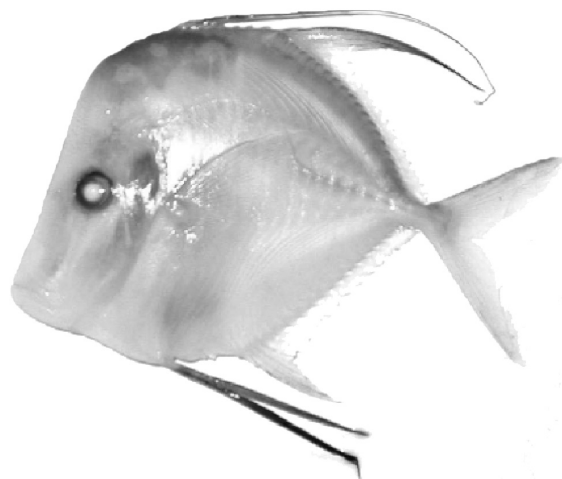


Figure 1 - *Selene vomer* caught in Mar Chiquita coastal lagoon, INIDEP 760, 100 mm TL. [*S. vomer* capturé dans la lagune Mar Chiquita.]

(1978), Menezes and Figueredo (1980) and Cervigón (1993). The following morphometric characteristics were registered (measurements in mm): total length 100; standard length 78; head length 25; body depth 65; ocular diameter 8; upper jaws length 11; pectoral fin length 32; pelvic fin length 47; dorsal lobe height 42 and anal lobe height 20. Meristic data are as follows: fin rays: 1st dorsal = VII; 2nd dorsal = I, 23; anal = III, 18; pectoral = 20; total gillrakers = 31. In fresh the specimen was grayish blue dorsally and silvery white ventrally, with vertical fringe of pale greenish yellowish color in both sides of the body. The specimen is preserved in ethanol and deposited in the fish collection of the Instituto Nacional de Investigación y Desarrollo Pesquero (identification code INIDEP 760).

The occurrence of *Selene vomer* in Mar Chiquita coastal lagoon is a probable consequence of the complex, dynamic nature of the Brazil and Malvinas Currents, that influences the dispersal of fish species that utilize these systems for long distance transport (Seeliger and Odebrecht, 1997). Three tropical affinity fish species have been previously recorded in Mar Chiquita coastal lagoon as occasional reports: *Trachinotus carolinus* (Linnaeus, 1766) (Díaz de Astarloa *et al.*, 2000), *Diplectrum radiale* (Quoy & Gaimard, 1824)

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Figure 2 - Mar Chiquita coastal lagoon (Argentina). The star (★) is the place where *Selene vomer* was caught [Lagune Mar Chiquita (Argentine) avec le lieu de capture de *S. vomer* (★)].

(Figueroa *et al.*, 2000), and *Mugil curema* Valenciennes, 1836 (González Castro *et al.*, 2006).

The presence of other tropical species has also been reported occasionally in coastal waters off northern Argentina (Díaz de Astarloa, *et al.*, 2000). The sporadic occurrences of fish species with tropical affinities in the Buenos Aires region is indicative of seasonal increases in water temperature influenced by oceanic currents.

Dispersal of fishes with tropical affinities has also been reported for other regions. Fish species originated in the tropical waters of the northeast Atlantic which occasionally extend to the north into temperate waters are also well documented (Quéro *et al.*, 1997). Quéro *et al.* (1997) recorded many tropical and subtropical fish unknown before 1950 in the European Atlantic to the north of Portugal. These unexpected occurrences could be due to recent climatic changes, particularly thermal increases, recorded in the European Atlantic (Bañón *et al.*, 2002).

Acknowledgements. - We would like to thank anonymous reviewers for offering helpful comments that substantially improved early draft of the manuscript. This work was partially supported by CONICET PIP 5009 grant.

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Reçu le 19 mars 2007

Accepté pour publication le 20 mars 2008.