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G. IOANNOU, N. MICHAILIDIS, A. LOUCAIDES, I.  
MANITARAS

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## First occurrence of *Scarus ghobban* (Actinopterygii: Scaridae) in the coastal waters of Cyprus (Eastern Mediterranean Sea)

G. IOANNOU<sup>1</sup>, N. MICHAELIDIS<sup>1</sup>, A. LOUCAIDES<sup>2</sup> and I. MANITARAS<sup>1</sup>

<sup>1</sup> Department of Fisheries and Marine Research, Nicosia, Cyprus

<sup>2</sup> Marine & Environmental Research (MER) Lab Ltd, Nicosia, Cyprus

Corresponding author: [gioannou@dfmr.moa.gov.cy](mailto:gioannou@dfmr.moa.gov.cy)

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### Abstract

The first occurrence of the Indo-Pacific blue-barred parrotfish (*Scarus ghobban*) in the coastal waters of Cyprus is reported. The finding corroborates the establishment of this Lessepsian immigrant along the Levantine coasts.

**Keywords:** *Scarus ghobban*; Lessepsian migration; Mediterranean Sea; Cyprus.

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### Introduction

A total of 28 alien fish species has been reported so far in Cyprus, of which 26 have an Indo-Pacific or Indian Ocean origin (including the Red Sea) and have been introduced from the Red Sea to the Mediterranean Sea via the Suez Canal (GOLANI *et al.*, 2002 (update: 2009); KATSANEVAKIS *et al.*, 2009).

This paper reports the first occurrence of the Lessepsian immigrant blue-barred parrotfish *Scarus ghobban* Forsskål, 1775 in the coastal waters of Cyprus. It is a wide-ranging species found from the eastern Pacific to the Red Sea and south to Algoa Bay in South Africa (RANDALL, 1986). The blue-barred parrotfish inhabits a wide variety of habitats and feeds by scraping algae

from rocks and corals. It lives solitary or in small groups and can reach up to 90 cm in length (FROESE & PAULY, 2010).

A single specimen of *S. ghobban* (Fig. 1) was caught in the area of Zygi, Cyprus (Fig. 2) on February 7, 2010, by trammel nets (60 mm of mesh size) at a depth of 20 m. It was an immature female 505 mm in total length and 1970 g in weight. Meristic formula of the specimen is the following: D, IX+10; A, III+9; P, 16; V, I+5; LL, 20+7; GR, 48. Morphometric measurements, taken according to FROESE & PAULY (2010) (Table 1) and counts are in agreement RANDALL (1986).

This is the fourth specimen of *S. ghobban* collected along the coasts of the eastern Mediterranean, showing a further distribution extension of the species in the re-



Fig. 1: The specimen of *Scarus ghobban* from Zygi, Cyprus (Photo: G. Ioannou).

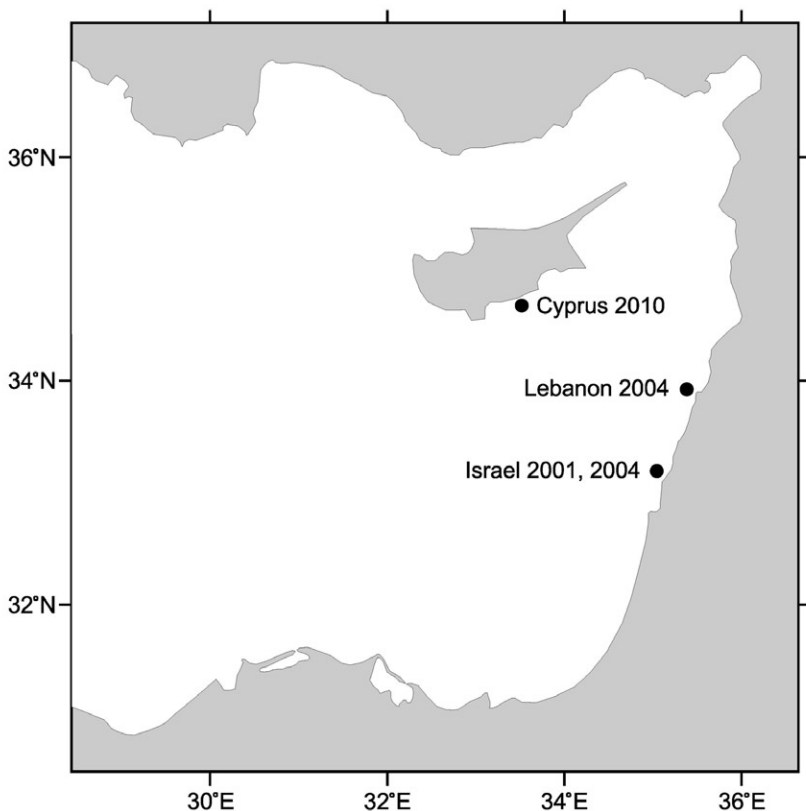
**Table 1**  
**Morphometric measurements of *Scarus ghobban* specimen from Cyprus.**

Measurements	Absolute Value (mm)	%
Total length (TL)	505	-
Standard length	397	78,6 TL
Fork length	449	88,9 TL
Pre-anal length	248	49,1 TL
Pre-dorsal length	134	26,5 TL
Pre-pelvic length	126	24,9 TL
Pre-pectoral length	117	23,2 TL
Body depth	144	28,5 TL
Caudal peduncle depth	55	10,9 TL
Head length (HL)	108	21,4 TL
Eye diameter	16	14,8 HL
Snout length	43	39,8 HL

gion. The first specimen was caught in October 2001 off the coast of Shiqmona in Israel (GOREN & ARONOV, 2002), where a second one was also captured in September 2004 (GOLANI & LEVY, 2005). In November 2004, another sample was collected from Beirut in Lebanon (BARICHE & SAAD, 2005) (Fig. 2).

Taking into account the above men-

tioned records and the present finding from Cyprus, the species should be classified as established in the Eastern Mediterranean Sea in the sense of the CIESM atlas series (fish species with at least three records in an area spread over time and space) (GOLANI *et al.*, 2002; KATSANEVAKIS *et al.* 2009). The establishment of a self-maintaining population of *S. ghobban* in the



**Fig. 2:** The specimen of *Scarus ghobban* from Zygi, Cyprus (Photo: G. Ioannou).

area is furthermore supported by several other sightings from Lebanon since at least 1999 (BARICHE & SAAD, 2005; CARPENTIERI *et al.*, 2009) and from Israel (GOLANI & LEVY, 2005).

The present finding, when added to recent reports in Cyprus of *Sepioteuthis lessoniana* and *Aquilonastra* (ex *Asterina*) *burtoni* (TZOMOS *et al.*, 2010), *Gambierdiscus* spp. (ALIGIZAKI *et al.*, 2010), *Chama aspersa* (DELONGUEVILLE & SCAILLET, 2010), *Paradella diana*e (KIRKIM *et al.*, 2010) and possibly the cryptogenic *Gobius couchi* (KOVACIC & GOLANI, 2007), increases the number of alien marine species in Cyprus to 133.

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