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FIRST RECORD OF THE AFRICAN HIND (*CEPHALOPHOLIS TAENIOPS*) (PISCES: SERRANIDAE) IN THE LEVANT

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ABSTRACT

The African hind Cephalopholis taeniops was recorded for the first time in the Levant. This species was known hitherto only from the eastern Atlantic Ocean from Morocco to Angola and southern Mediterranean coast of Libya.

Key words: African hind, *Cephalopholis taeniops*, Mediterranean, Levant, first record

PRIMA SEGNALAZIONE DI CERNIA ATLANTICA (*CEPHALOPHOLIS TAENIOPS*) (PISCES: SERRANIDAE) NEL BACINO LEVANTINO

SINTESI

La presenza della cernia atlantica Cephalopholis taeniops è stata confermata per la prima volta nel Bacino Levantino. Finora la specie era conosciuta solo per la parte orientale dell'oceano Atlantico dal Marocco all'Angola, e per la costa mediterranea meridionale della Libia.

Parole chiave: Cernia atlantica, *Cephalopholis taeniops*, Mediterraneo, Bacino Levantino, prima segnalazione

INTRODUCTION

In the Mediterranean new fish records are continually being discovered and have increased in recent decades. Although the majority of the new arrivals have originated from the Red Sea ("Lessepsian migrants"), there are a number of migrant species of Atlantic origin (Golani *et al.*, 2002, 2004).

Unlike Lessepsian migrants that usually establish sustainable populations in the Mediterranean, whether gradually or immediately upon arrival, most of the recently recorded species of Atlantic origin remain rare or are considered vagrant in their new habitat. However, there are two notable exceptions to this general rule. The puffer fish *Spherooides pachygaster* (Müller and Troschel, 1848) was first recorded in the Mediterranean near Mallorca (Oliver, 1981) and within a decade reached the coast of Israel (Golani, 1996). The other example is the Least Amberjack *Seriola fasciata* (Bloch, 1793) that was first recorded in the Mediterranean from the Balearic Islands (Massutí & Stefanescu, 1993) and a decade later became a successful commercial species in the central Mediterranean (Andaloro *et al.*, 2005); a few years later, it reached the Levant (Sonin *et al.*, 2009).

In this paper, we report the occurrence of the African Hind (*Cephalopholis taeniops*) from the Israeli Mediterranean coast. This constitutes a significant distribution extension of this species in the Mediterranean.

MATERIAL AND METHODS

On 23 June 2009, a 236 mm Standard Length (291 mm Total Length) specimen of *Cephalopholis taeniops* (Valenciennes, 1828) (Fig. 1) was collected using a spear-gun in a rocky habitat at depths of 30 m in the vicinity of Haifa Bay (Fig. 2). The specimen was fixed in

10% formaldehyde, later transferred to 70% alcohol and deposited in the Hebrew University Fish Collection (HUJ) with the catalogue number 19841. Measurements and counts followed Hubbs & Lagler (1947). Gill rakers on the first left arch were counted. The last dorsal and anal rays, which are divided almost to the base, were considered to be one ray.

RESULTS AND DISCUSSION

The body is robust and slightly compressed, the depth at the origin of dorsal fin (35.9%), large head (39.7%), predorsal (40.2%), preanal (67.0%), least caudal peduncle (13.7%); all proportions are given as a percentage of Standard Length. A small eye (14.1%), slightly concaved interorbital (16.5%), jaw (48.6%) reaching back to the posterior third of the eye, the snout (26.0%); all proportions are given as a percentage of Head Length. The dorsal fin is continuous, with 9 spines and 16 soft rays; the anal fin with 3 spines and 8 soft rays; the pectoral fin is round, with 17 rays on both sides; the pelvic fin is also round, with 1 spine and 5 rays; and the caudal fin also round.

The posterior nostril is close to the eye at the level of the upper third, and the anterior nostril is very close and slightly lower, equipped with a small flap.

The mouth is large, lower jaw projected. There are two strong canines at the anterior of each jaw. At the base between the canines of the upper jaw, there is a patch of sharp teeth of different sizes; the inner teeth are the largest. There is also a band of small sharp teeth on the upper jaw becoming narrow posteriorly; a patch of fang-like teeth at the lower jaw becoming smaller towards its posterior end; a small overturned shallow V-shaped vomer patch with small sharp teeth; a pair of palatine teeth patches immediately posterior to the vo-



Fig. 1: *Cephalopholis taeniops*, 236 mm Standard Length, Haifa Bay, Israel, HUI 19841.
Sl. 1: *Cephalopholis taeniops*, 236 mm standardne dolžine, zaliv Haifa, Izrael, HUI 19841.

mer patch, equipped with small sharp teeth. There are 4 knob-like undeveloped and 4 developed gill rakers on the upper arch and 3 knob-like undeveloped and 12 rakers on the lower arch. Three flat spines on the posterior margin of the operculum, the distance between the central spine to the upper spine is almost twice that to the lower spine. The preoperculum is delicately serrated at its lower margin.

Color of the fresh specimen. The body is red-orange, covered with numerous light blue spots surrounded with black margins. The posterior part of all fins is slightly darker; the posterior margin of caudal fin has a faded light blue margin. There is an almost horizontal bluish line surrounded with a black line under the eye. A blue ring with a dot in the center, both surrounded with black at the ventral edge of the operculum slightly behind the posterior end of the premaxilla. The eye is red with a black pupil.

Color of the preserved specimen after one week in formaldehyde. The body is yellowish to beige with black dots.

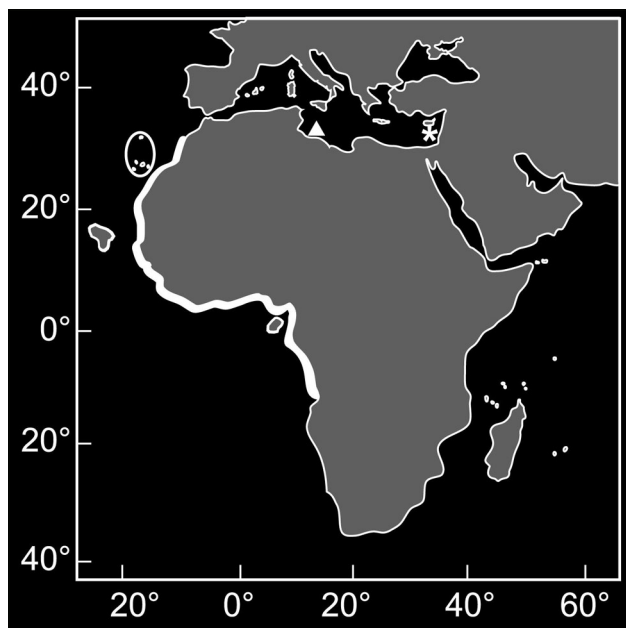


Fig. 2: Map of Africa and the Mediterranean showing the original distribution of *Cephalopholis taeniops* (—), region of previous records in the Mediterranean (▲) and the present study (*).

Sl. 2: Zamljevid Afrike in Sredozemlja, na katerem je označena prvotna razširjenost *Cephalopholis taeniops* (—), področje dosedanjega pojavljanja v Sredozemlju (▲) in pričujoče raziskave (*).

All counts and measurements agree with the description of *C. taeniops* given by Smith (1981), Serret & Opic (1990), Heemstra & Randal (1993) and Ben Abdallah *et al.* (2007).

Originally, *C. taeniops* was known from western Africa, from Morocco to Angola. It was first recorded in the Mediterranean off the coast of Libya by Ben Abdallah *et al.* (2007) reporting two specimens collected from the Gulf of Syrte, one off Tripoli (September 2002) and the second from Missurata, ca. 200 km east of Tripoli (June 2004). In the subsequent years another four specimens were collected in the coastal waters of Libya (A. Ben Abdallah, *pers. comm.*).

This report constitutes the first record of this species from the Levant extending its known distribution significantly eastward by ca 1800 km. The records of several specimens in the Mediterranean over a period of nine years suggest that *C. taeniops* has established a sustainable population in its new region.

C. taeniops can be distinguished from its co-familial species in the Mediterranean by its unique coloration. The color pattern of *C. taeniops* is similar to that of the Indo-Pacific *Cephalopholis miniata* (Forsskål, 1775) which is found also in the Red Sea. However, *C. taeniops* has a clear horizontal line under its eye, as well as a blue ring on the lower part of the operculum, distinguishing it from *C. miniata*.

C. taeniops is a carnivorous fish inhabiting rocky and sandy substrates. It reaches a Total Length of 40 cm. It is considered to be an esteemed commercial species generally caught with long-line and trawl; some of the West African catch is marketed in Europe.

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PRVI PODATEK O POJAVLJANJU KIRNJE VRSTE *CEPHALOPHOLIS TAENIOPS*
(PISCES: SERRANIDAE) V LEVANTSKEM MORJU

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POVZETEK

Prvič je zabeleženo pojavljanje kirnje vrste *Cephalopholis taeniops* v Levantskem morju. Vrsta je bila dosedaj znana samo za vzhodno atlantsko obalo od Maroka do Angole in južno Sredozemlje ob obali Libije.

Ključne besede: kirnja, *Cephalopholis taeniops*, Sredozemlje, Levantsko morje, prvo pojavljanje

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