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PROOF SHORT PAPER

Occurrence of the Indo-Pacific *Champsodon nudivittis* (Perciformes, Champsodontidae) in the Bay of Gökova (Southern Aegean Sea, Turkey)

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Abstract

A specimen of *Champsodon nudivittis* (Ogilby, 1895) of 130 mm TL, was caught on 22 March 2014 with a trammel net, off the coast of Akyaka in Gökova Bay, Southern Aegean Sea at a depth of 40 m. The fish constitutes also the northernmost extension range of the species in the Aegean Sea.

Keywords: *Champsodon nudivittis*, Lessepsian, new record, dispersion

Gökova Körfezi'nde (Güney Ege Denizi, Türkiye) Indo-Pasifik *Champsodon nudivittis* (Perciformes, Champsodontidae)'in Bulunuşu

Özet

130 mm TL boyda bir *Champsodon nudivittis* (Ogilby, 1895) bireyi, 22 Mart 2014 tarihinde Güney Ege Denizi'nde, Gökova Körfezi'nde Akyaka kıyıları açığında ve 40 m derinlikte bir fanyalı uzatma ağıyla yakalanmıştır. Bu balık aynı zamanda, Ege Denizi'nde türün en kuzey uzantısını da oluşturmaktadır.

Anahtar Kelimeler: *Champsodon nudivittis*, Lesepsiyen, yeni kayıt, dağılım.

Introduction

The Champsodontidae family is known as gapers and it contains only one genus, *Champsodon*, and thirteen species (Nelson, 2006). *Champsodon nudivittis* is known from the Indo-West Pacific, Madagascar, Indonesia, the Philippines and Australia (Froese and Pauly, 2014). It was first recorded from Iskenderun Bay, Turkey in the Mediterranean Sea (Çiçek and Bilecenoğlu, 2009). All successive records of *C. nudivittis* are given in Table 1 and Figure 1.

On 22 March 2014, a 130 mm TL specimen of *C. nudivittis* (Figure 2) was captured by a trammel net (50 mm stretched mesh size) from the Akyaka, Gökova Bay (37°01'N-28°15'E, Figure 1) at a depth of 40 m. The specimen was fixed in 10% formaldehyde solution and stored in the fish collection of the Ege University, Fisheries Faculty (ESFM-PIS/2014-02).

The specimen was measured to the nearest millimetre (Table 2) and it was identified as follows: First gill arch with a single gill raker on upper limb and 9 on lower limb. Body elongate and slightly compressed laterally (Figure 2a). Mouth oblique and maxilla extending to below posterior margin of eye (Figure 2b). A row of five pairs of sensory papillae, not arranged in semicircle, located between parallel bony ridges on upper part of head (Figure 2c). Lacrimal bone with two spines projecting anteroventrally (Figure 2d) and a characteristic posteroventral spine on the preopercle. Scales small and spiny, not overlapping. A small patch of scales on the breast (Figure 2e); bases of dorsal and anal fins scaleless; area between pectoral and pelvic fins naked, chin also completely naked but with distinct small melanophores; no scales on the belly as far as to the anus (Figure 2f). No melanophores along the pectoral fin rays. Pectoral, anal and ventral fins pale; dorsal fins also pale with dark spots in their upper parts, and dark pigmentation at base of the caudal fin. All measurements, counts, and color patterns determined are in accordance with description of Çiçek and Bilecenoğlu (2009), Goren *et al.* (2011), Kalogirou and Corsini-Foka (2012), Filiz *et al.* (2014) and

Table 1. Records of *Champsodon nudivittis* in the Mediterranean

Location	Depth (m)	Fishing Gear*	Record Date	Number collected	Size (mm)	References
Iskenderun Bay, NE Medit.	50	T	18 Jan. 2008	1	114 TL	Çiçek and Bilecenoğlu (2009)
Ekincik Bay, Fethiye	55-72	T	12 Nov. 2010	5	47-133 TL	Filiz *et al.* (2014)
Gulf of Antalya, NE Medit.	140-150	T	23-28 Dec.2010	6	95-130 TL	Gökoğlu *et al.* (2011)
Finike Bay, NE Medit.	180	T	17 Jan. 2011	4	129-140 TL	Ergüden and Turan (2011)
Fethiye Bay, S Aegean Sea	120-190	T	10-13 Mar. 2011	94	47-133 TL	Filiz *et al.* (2014)
Off Ashod, Israel, E Medit.	100	?	31 May 2011	1	89 SL	Goren *et al.* (2011)
W Rhodes, S Aegean Sea	150	SP	12 May 2012	2	83-88 TL	Kalogirou and Corsini-Foka (2012)
Gökova Bay, S Aegean Sea	40	TN	22 March 2014	1	130 TL	This study

*T: Trawl; SP: Shrimp pot; TN: Trammel net

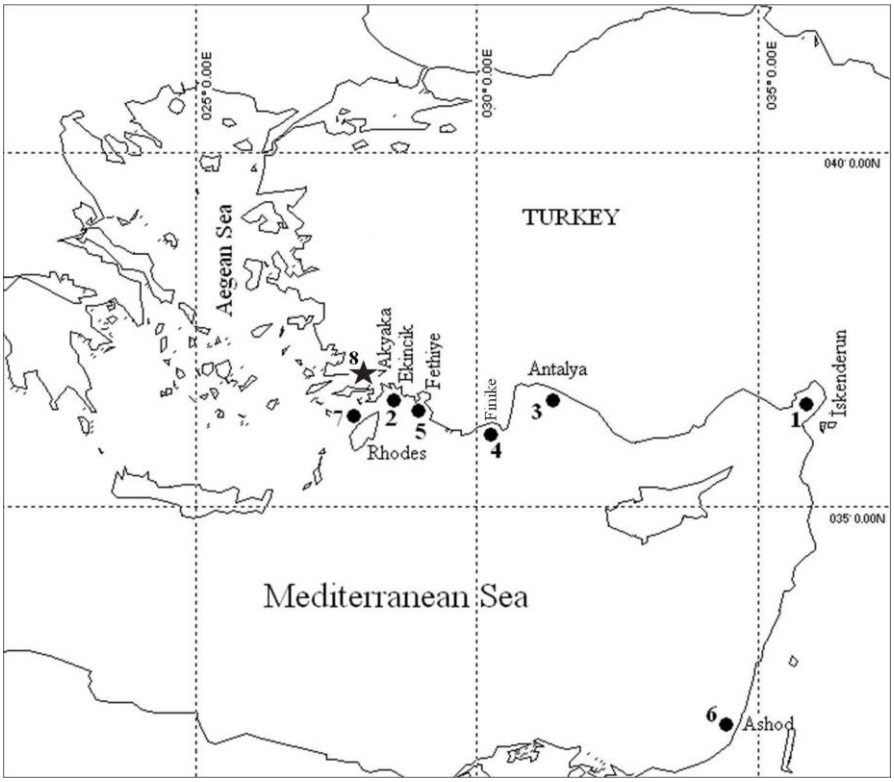

Figure 1. Westward range extension of *Champsodon nudivittis* the coastal areas of the Mediterranean Sea (black dots and star indicate consecutive reports and the last record, respectively): (1) January 2008 Çiçek and Bilecenoğlu (2009); (2) November 2010 Filiz *et al.* (2014); (3) December 2010 Gökoğlu *et al.* (2011); (4) January 2011 Ergüden and Turan (2011); (5) March 2011 Filiz *et al.* (2014); (6) May 2011 Goren *et al.* (2011); (7) May 2012 Kalogirou and Corsini-Foka (2012); (8) March 2014 this study.

Froese and Pauly (2014).

The occurrence of the *C. nudivittis* in the Red Sea was confirmed by Goren *et al.* (2011), whereas Çiçek and Bilecenoğlu (2009) assumed that the mode of introduction into the Mediterranean Sea occurred via ballast tanks of ships. Also, Goren *et al.* (2011) concluded that the occurrence of *C. nudivittis* in Israel and Turkey indicates the presence of a reproducing population in the Mediterranean. We agree with this possibility due to 94 specimens collected from Fethiye Bay during three days with a bottom trawl survey (Filiz *et al.* 2014). Moreover, as seen in Table 1 and Figure 1 in this study involving all successive records of *C. nudivittis* in the Mediterranean, *C. nudivittis* seems to be a rapid invasive species; even than the other Champsodontid two species, *C. vorax* and *C. capensis*, found in the Gulfs of Iskenderun and Antalya. Recently, another two Champsodontid species were also reported in Turkish Mediterranean coasts; *C. capensis* was first reported from the İskenderun Bay in 2010 (Dalyan *et al.*, 2012), and *C. vorax* and *C. capensis* were reported altogether from

Table 2. Morphometric measurements in mm and proportions (%) and counts recorded in *Champsodon nudivittis*, captured from Gökova Bay, Southern Aegean Sea

Reference	ESFM-PIS/2014-002	
Measurements	Size (mm)	Proportion %
Total length (TL)	130	
Standard length (SL)	112	86.2 TL
Fork length (FL)	125	96.2 TL
Maximum body depth	22	16.9 TL
Predorsal fin length	35	26.9 TL
Preanal fin length	60	46.2 TL
Head length (HL)	29	22.3 TL
Preorbitary length	8.2	28.3 HL
Eye diameter	5.8	20.0 HL
Counts		
1st Dorsal fin rays	5	
2nd Dorsal fin rays	20	
Anal fin rays	18	
Pectoral fin rays	14	
Ventral fin rays	5+5	

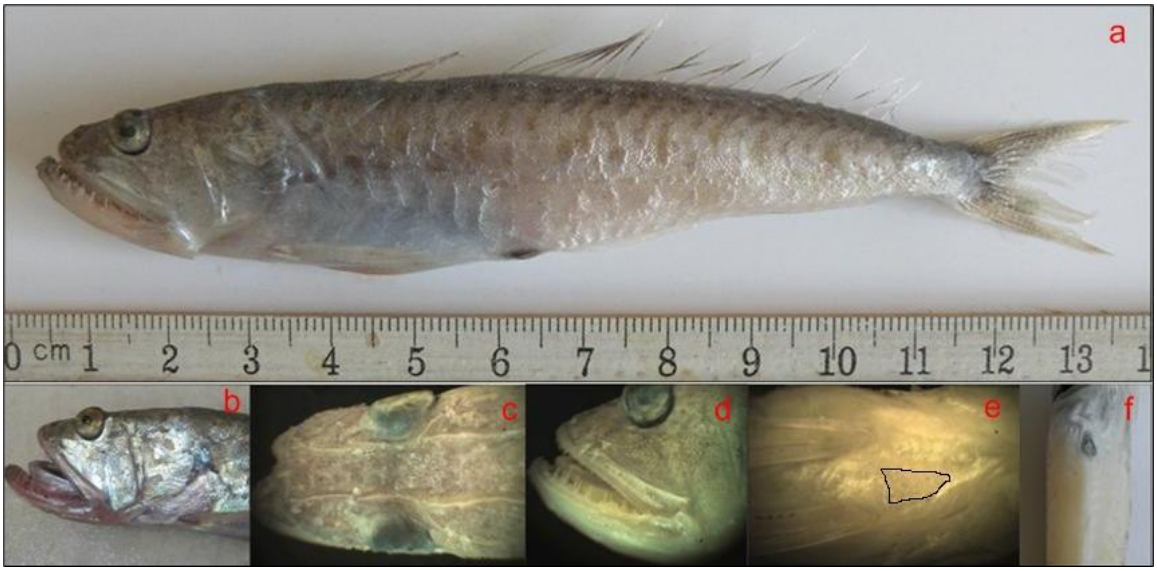

Figure 2. *Champsodon nudivittis*, caught from Gökova Bay, Southern Aegean Sea: (a) general view, (b) profile view of head, (c) dorsal view of head, (d) lacrimal bone view with two spines, (e) scale pattern in breast, and (f) scale pattern at anal region.

the Gulf of Antalya in 2012 (Gökoğlu and Özvarol, 2013).

In the present study, *C. nudivittis* with size of 130 mm TL is one the largest one reported to date from the Mediterranean Sea, and sizes of the specimens are ranged from 47 to 140 mm TL in previous records (see, Table 1).

In conclusion, a total of 114 specimens of *C. nudivittis* in eight intermittent localities at different depths from 40 m to 190 m, of different sizes and within the different years between 2008 and 2014 indicate an establishment success of a self-maintaining population in the Levantine basin. However, this hypothesis needs further investigation. Additionally, this ichthyological note also represents the northernmost distribution of this species in the Mediterranean.

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