

# ANNALES

*Anali za istrske in mediteranske študije*  
*Annali di Studi istriani e mediterranee*  
*Annals for Istrian and Mediterranean Studies*  
*Series Historia Naturalis, 34, 2024, 2*





# ANNALES

**Anali za istrske in mediteranske študije**  
**Annali di Studi istriani e mediterranee**  
**Annals for Istrian and Mediterranean Studies**

**Series Historia Naturalis, 34, 2024, 2**



ISSN 1408-533X  
e-ISSN 2591-1783

UDK 5

Letnik 34, leto 2024, številka 2

**UREDNIŠKI ODBOR/  
COMITATO DI REDAZIONE/  
BOARD OF EDITORS:**

Alessandro Acquavita (IT), Nicola Bettoso (IT), Christian Capapé (FR), Darko Darovec, Dušan Devetak, Jakov Dulčić (HR), Serena Fonda Umani (IT), Andrej Gogala, Daniel Golani (IL), Danijel Ivajnskič, Mitja Kaligarič, Marcelo Kovačič (HR), Andrej Kranjc, Lovrenc Lipej, Vesna Mačič (ME), Alenka Malej, Patricija Mozetič, Martina Orlando-Bonaca, Michael Stachowitsch (AT), Tom Turk, Al Vrezec

**Glavni urednik/Redattore capo/  
Editor in chief:**

Darko Darovec

**Odgovorni urednik naravoslovja/  
Redattore responsabile per le scienze  
naturali/Natural Science Editor:**

Lovrenc Lipej

**Urednica/Redattrice/Editor:**

Martina Orlando-Bonaca

**Prevajalci/Traduttori/Translators:**

Martina Orlando-Bonaca (sl./it.)

**Oblikovalec/Progetto grafico/  
Graphic design:**

Dušan Podgornik, Lovrenc Lipej

**Tisk/Stampa/Print:**

Založništvo PADRE d.o.o.

**Izdajatelj/Editori/Published by:**

Zgodovinsko društvo za južno Primorsko - Koper / Società storica del Litorale - Capodistria®

Inštitut IRRIS za raziskave, razvoj in strategije družbe, kulture in okolja / Institute IRRIS for Research, Development and Strategies of Society, Culture and Environment / Istituto IRRIS di ricerca, sviluppo e strategie della società, cultura e ambiente®

**Sedež uredništva/Sede della redazione/  
Address of Editorial Board:**Nacionalni inštitut za biologijo, Morska biološka postaja Piran / Istituto nazionale di biologia, Stazione di biologia marina di Pirano / National Institute of Biology, Marine Biology Station Piran  
SI-6330 Piran / Pirano, Fornače/Fornace 41, tel.: +386 5 671 2900, fax +386 5 671 2901;  
e-mail: annales@mbss.org, internet: www.zdjp.si

Redakcija te številke je bila zaključena 16. 12. 2024.

**Sofinancirajo/Supporto finanziario/  
Financially supported by:**

Javna agencija za znanstveno-raziskovalno in inovacijsko dejavnost Republike Slovenije (ARIS)

*Annales - Series Historia Naturalis* izhaja dvakrat letno.**Naklada/Tiratura/Circulation:**

300 izvodov/copie/copies

Revija Annales, Series Historia Naturalis je vključena v naslednje podatkovne baze / La rivista Annales, series Historia Naturalis è inserita nei seguenti data base / Articles appearing in this journal are abstracted and indexed in: BIOSIS-Zoological Record (UK); Aquatic Sciences and Fisheries Abstracts (ASFA); Elsevier B.V.: SCOPUS (NL); Directory of Open Access Journals (DOAJ).

To delo je objavljeno pod licenco / Quest'opera è distribuita con Licenza / This work is licensed under a Creative Commons BY-NC 4.0.



Navodila avtorjem in vse znanstvene revije in članki so brezplačno dostopni na spletni strani <https://zdjp.si/en/p/annalesshn/>  
The submission guidelines and all scientific journals and articles are available free of charge on the website <https://zdjp.si/en/p/annalesshn/>  
Le norme redazionali e tutti le riviste scientifiche e gli articoli sono disponibili gratuitamente sul sito <https://zdjp.si/en/p/annalesshn/>



VSEBINA / *INDICE GENERALE* / *CONTENTS*BIOTSKA GLOBALIZACIJA  
*GLOBALIZZAZIONE BIOTICA*  
*BIOTIC GLOBALIZATION***Malek ALI, Aola FANDI & Christian CAPAPÉ**

The First Mediterranean Record of Red-Toothed Triggerfish *Odonus niger* (Balistidae) from the Syrian Coast (Eastern Mediterranean Sea) ..... 173  
*Prvi zapis o pojavljanju rdečezobe balestre Odonus niger (Balistidae) iz sirske obale (vzhodno Sredozemsko morje)*

**Zafer TOSUNOĞLU & Okan AKYOL**

Occurrence of *Pterois miles* (Scorpaenidae) in the Mediterranean Sea ..... 179  
*Pojavljanje navadne plamenke Pterois miles (Scorpaenidae) v Sredozemskem morju*

**Izdihar Ali AMMAR** New Non-Native and Rare

Marine Invertebrates in Syrian Waters ..... 187  
*Novi primeri o pojavljanju tujerodnih in redkih morskih nevretenčarjev v sirskih vodah*

**Luca CASTRIOTA, Manuela FALAUTANO & Laura SINAPI**

A New Locality Record for the Range Expanding Fish *Seriola fasciata* in the Mediterranean ..... 199  
*Nova lokaliteta pojavljanja vrste Seriola fasciata, ki širi areal v Sredozemskem morju*

**F. Saadet KARAKULAK, Mehmet GÖKOĞLU, Uğur UZER & Hakan KABASAKAL**

First Record of the *Abudefduf* cf. *saxatilis/vaigiensis/troschellii* Species Complex (Pisces: Pomacentridae) in the Black Sea ..... 205  
*Prvi zapis o pojavljanju primerka vrste iz kompleksa Abudefduf cf. saxatilis/vaigiensis/troschellii (Pisces: Pomacentridae) iz Črnega morja*

SREDOZEMSKA HRUSTANČNICE  
*SQUALI E RAZZE MEDITERRANEE*  
*MEDITERRANEAN SHARKS AND RAYS***Farid HEMIDA, Christian REYNAUD & Christian CAPAPÉ**

Occurrence of the Rare Blonde Ray, *Raja brachyura* (Rajidae), Off the Algerian Coast (Southwestern Mediterranean Sea) ..... 213  
*Pojavljanje redke okrašte raže, Raja brachyura (Rajidae), ob alžirski obali (jugozahodno Sredozemsko morje)*

**Hakan KABASAKAL, Uğur UZER & F. Saadet KARAKULAK**

Occurrence of Longnosed Skate, *Dipturus oxyrinchus*, in the Sea of Marmara ..... 221  
*Pojavljanje koničaste raže, Dipturus oxyrinchus, v Marmarskem morju*

**Cem ÇEVİK, Gökhan GÖKÇE & Deniz ERGUDEN**

Capture of a Juvenile Sharpnose Sevengill Shark, *Heptranchias perlo* (Bonnaterre, 1788), from the Turkish Coast (Eastern Mediterranean Sea) with Updated Records from Mediterranean Waters ..... 229  
*Ulov mladostnega primerka morskega psa sedmeroškrjarja, Heptranchias perlo (Bonnaterre, 1788), iz turških voda (vzhodno Sredozemsko morje) z posodobljenim seznamom zapisov o pojavljanju v Sredozemskem morju*

Eloïse DEYSSON, Sarah FOXONET, Etienne RÉGNIER, Chloé MOSNIER, Florane TONDU, Janis BROUTIN-RENAUD Bruno COGNIE, Alessandro DE MADDALENA, Hakan KABASAKAL & Nicolas ZIANI

Additional Historical Records of Great White Sharks, *Carcharodon carcharias*, Caught in the Gulf of Lion, Northwestern Mediterranean Sea, Between the 1920s and 1950s ..... 239  
*Dodatni zgodovinski zapisi o belih morskih volkih, Carcharodon carcharias, ujetih v zalivu Lyon (severozahodno Sredozemsko morje) v dvajsetih in petdesetih letih*

Malek ALI, Aola FANDI, Dima GHANEM & Christian CAPAPÉ

Capture of a Juvenile Basking Shark, *Cetorhinus maximus* (Cetorhinidae), Off the Syrian Coast, With Comments on the Occurrence of the Species in the Levant Basin (Eastern Mediterranean Sea) ..... 251  
*Ulov mladostnega primerka morskega psa orjaka, Cetorhinus maximus (Cetorhinidae), ob sirski obali s komentarji o pojavljanju vrste v levantskem bazenu (vzhodno Sredozemsko morje)*

Hakan KABASAKAL, Uğur UZER & F. Saadet KARAKULAK

Impact of Fishing Capacity and Environmental Parameters on Landings of *Hexanchus griseus* in the Sea of Marmara ..... 257  
*Vpliv ribolovne zmogljivosti in okoljskih parametrov na ulov vrste Hexanchus griseus v Marmarskem morju*

MORSKA FAVNA  
 FAUNA FAUNA  
 MARINE FAUNA

Tea KNAPIČ, Irena FRKOVIČ, Borut MAVRIČ & Lovrenc LIPEJ

An Insight into the Heterobranch Fauna of Fiesa (Slovenia, Northern Adriatic Sea) ..... 275  
*Vpogled v favno polžev zaškrGARJEV Fiese (Slovenija, severni Jadran)*

Francesco TIRALONGO, Alessandro NOTA, Emanuele MANCINI & Luigi MUSCO

Wounds Inflicted on Humans by the White Seabream (*Diplodus sargus*): First Scientific Report of Aggressive Behavior ..... 291  
*Rane, ki jih ljudem zadajajo šargi (Diplodus sargus): prvo znanstveno poročilo o agresivnem vedenju*

ORNITOFAVNA  
 ORNITOFAUNA  
 ORNITHOFAUNA

ANDREA DE ANGELIS & MARIO PELLEGRINI

Nuovo Sito di Nidificazione di Aquila Reale *Aquila chrysaetos* nel Subappennino Abruzzese ..... 301  
*Novo gnezdišče planinskega orla v subapeninskih Abrucih*

FLORA  
 FLORA  
 FLORA

Amelio PEZZETTA & MARCO PAOLUCCI

La flora di Taranta Peligna (Abruzzo, Italia) ..... 317  
*Flora Taranta Peligna (Abruci, Italija)*

Kazalo k slikam na ovitku ..... 357  
*Index to images on the cover* ..... 357

received: 2024-10-06

DOI 10.19233/ASHN.2024.21

# THE FIRST MEDITERRANEAN RECORD OF RED-TOOTHED TRIGGERFISH *ODONUS NIGER* (BALISTIDAE) FROM THE SYRIAN COAST (EASTERN MEDITERRANEAN SEA)

Malek ALI

Marine Sciences Laboratory, Production Animals Department, Faculty of Agriculture, Tishreen University, Lattakia, Syria  
e-mail: malekfaresali@gmail.com

Aola FANDI

Biology Department, Faculty of Sciences, Tartous University, Syria

Christian CAPAPÉ

Laboratoire d'Ichtyologie, Université de Montpellier, 34095 Montpellier cedex 5, France  
e-mail: capape@orange.fr

## ABSTRACT

The present paper reports the first record of the red-toothed triggerfish, *Odonus niger* (Rüppell, 1836), in the Mediterranean Sea. Two specimens were captured in Syrian marine waters (Eastern Mediterranean), measuring 250 mm and 225 mm in total length (TL) and weighing 209 g and 126 g, respectively. The species' original distribution is in the Indo-West Pacific, including the Red Sea, suggesting *O. niger* is a Lessepsian migrant introduced through the Suez Canal. However, other explanations for its presence in the Mediterranean Sea, such as introduction via ship ballast waters or release from aquariums cannot be totally excluded. This new record confirms that the number of alien species entering the Mediterranean is still increasing and highlights the need for further monitoring to determine the true status of this species in the study area.

**Key words:** *Odonus niger*, Lessepsian migrant, aquarium, Eastern Levant, Mediterranean Sea

## PRIMA SEGNALAZIONE MEDITERRANEA DI PESCE BALESTRA NERO *ODONUS NIGER* (BALISTIDAE) LUNGO LA COSTA SIRIANA (MEDITERRANEO ORIENTALE)

### SINTESI

Il presente lavoro riporta la prima segnalazione del pesce balestra nero, *Odonus niger* (Rüppell, 1836), nel Mediterraneo. Due esemplari sono stati catturati nelle acque marine siriane (Mediterraneo orientale), di 250 mm e 225 mm di lunghezza totale (TL) e 209 g e 126 g di peso, rispettivamente. La distribuzione originaria della specie è nel Pacifico indo-occidentale, compreso il Mar Rosso, il che suggerisce che *O. niger* sia un migratore lessepsiano introdotto attraverso il Canale di Suez. Tuttavia, non si possono escludere altre ipotesi per la sua presenza nel Mediterraneo, come l'introduzione attraverso le acque di zavorra delle navi o il rilascio dagli acquari. Questo nuovo dato conferma che il numero di specie aliene che entrano nel Mediterraneo è ancora in aumento e sottolinea la necessità di ulteriori monitoraggi per determinare il vero status di questa specie nell'area di studio.

**Parole chiave:** *Odonus niger*, migratore lessepsiano, acquario, Levante orientale, Mediterraneo

## INTRODUCTION

So far, according to Kovačić et al. (2021), the family Balistidae has been represented in the Mediterranean Sea by two species: the grey triggerfish, *Balistes caprisus* Gmelin, 1789, and the clown triggerfish, *Balistoides conspicillum* (Bloch & Schneider, 1801). *B. caprisus* was reported as *B. carolinensis* Gmelin, 1789, by Tortonese (1986), who noted that the species was common throughout the Mediterranean Sea and rare in the Black Sea. In Syrian marine waters, *B. caprisus* was first recorded by Gruvel (1931), and more recently by Ali (2018). The species feeds on molluscs and crustaceans, and deposits eggs in the summer in a cavity made by the female and guarded by the male (Tortonese, 1986).

*Balistoides conspicillum* was sighted in an underwater photograph by Weitzmann et al. (2015) off Sitges, a city in Costa Daurada, northern Spain. The species is solitary and its diet is similar to that of *B. caprisus*. It is widely distributed in the Indo-Pacific, from South Africa to Samoa, but is unknown in the Red Sea (Golani et al., 2021).

Investigations conducted over the past two decades along the Syrian coast have provided the opportunity to collect two specimens of the red-toothed triggerfish *Odonus niger* (Rüppell, 1836). This species is widely distributed in the Indo-West Pacific, from East Africa

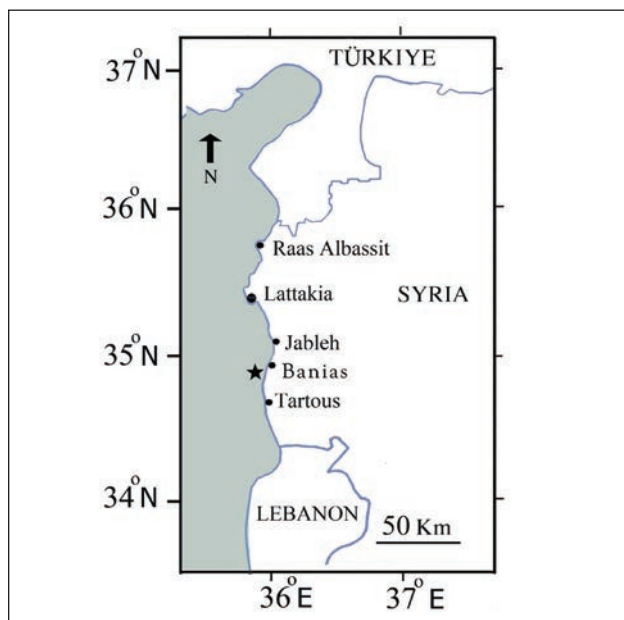
to southern Japan, including the Red Sea, the Ogasawara Islands, the Great Barrier Reef and the Coral Sea (Randall et al., 1990). It is also present in the Marquesas and Society islands (Golani & Fricke, 2018), around Madagascar and Sri Lanka (Fischer & Bianchi, 1984), as well as in Indonesia and the Marianas Islands (Heemstra et al., 2022). It has been recorded at depths of up to 130 m off the southwest coast of India (Ramachandran & Philip, 2010). Previously, *O. niger* had not been confirmed in the Mediterranean Sea; therefore, both collected specimens, and the potential causes of these new findings are discussed here.

## MATERIAL AND METHODS

The study of both specimens follows the protocol of Bello et al. (2014), recommended for first records. The two specimens were caught on 13 September 2024, using a metal bottom cage, at a depth of 15 m on a rocky bottom. The captures occurred 1 km off the fishing port of Baniyas city at 35°11' N and 35°55' E (Fig. 1). The identification of the specimens was based on ichthyological notes and field guides. Morphometric measurements, recorded to the nearest millimetre are summarized in Table 1, along with meristic counts and total body weight to the nearest gram. The specimens were photographed, preserved in 10% buffered formaldehyde, and deposited in the Ichthyological Collection of the Marine Sciences Laboratory (MSL) at the Faculty of Agriculture, Tishreen University (Syria), under reference numbers 2332 MSL (Fig. 2) and 2333 MSL.

## RESULTS AND DISCUSSION

The two specimens measured 250 mm and 225 mm in total length (including long caudal-fin lobes), and weighed 209 g and 126 g, respectively. They were classified as *O. niger* based on the combination of the following main morphological characters: body deep and laterally compressed, with large rectilinear scale plates forming regular rows on thick skin; a prominent groove in the skin extending anteriorly from front of eye equal to, or slightly longer than eye diameter; three prominent dorsal fin spines, with first capable of being locked erect by second; caudal fin rays greatly prolonged above and below; anterior rays of both soft dorsal and anal fins elevated, with margins prominently concave in profile; mouth slightly supraterminal, with lower jaw jutting forward, featuring distinctive red teeth, including two canine-like lateral teeth in upper jaw; enlarged bony scales present behind gill opening; deep groove before the eyes and below the nostrils; dorsal fins with 3 spines, 34 rays; anal fin with 28 rays; pectoral fins with 14 rays; pelvic fins reduced to a single rudiment; caudal fin extremely



**Fig. 1:** Map of the Syrian coast with the black star indicating the capture site of the two specimens of *Odonus niger* (ref. 2332 and 2333 MSL).

**Sl. 1:** Zemljevid sirske obale z označeno lokaliteto ulova (črna zvezdica) dveh primerkov vrste *Odonus niger* (ref. 2332 in 2333 MSL).



**Tab. 1: Morphometric measurements with percentages of total length (%TL), meristic counts, and total body weight of the *Odonus niger* captured 1 km off Baniyas city, Syrian coast (ref. 2332 MSL and 2333 MSL).****Tab. 1: Morfometrične meritve z deleži celotne dolžine (%TL), meristična štetja in celokupna teža primerkov vrste *Odonus niger*, ujetih v vodah, oddaljenih 1 km od mesta Baniyas, sirska obala (ref. 2332 MSL in 2333 MSL).**

| References                       | MSL 2332 |      | MSL 2333 |      |
|----------------------------------|----------|------|----------|------|
| Morphometric measurements        | mm       | %TL  | mm       | %TL  |
| Total length                     | 250      | 100  | 225      | 100  |
| Standard length                  | 161      | 64.4 | 144      | 64.0 |
| Fork length                      | 197      | 78.8 | 175      | 77.8 |
| Body depth                       | 84       | 33.6 | 76       | 33.8 |
| Head length                      | 55       | 22   | 45       | 20.0 |
| Eye diameter                     | 8        | 3.2  | 7        | 3.1  |
| Snout length                     | 38       | 15.2 | 35       | 15.6 |
| Upper jaw length                 | 8        | 3.2  | 6        | 2.7  |
| Lower jaw length                 | 7        | 2.8  | 5        | 2.2  |
| Base of first dorsal fin length  | 23       | 9.2  | 21       | 9.3  |
| Base of second dorsal fin length | 102      | 40.8 | 92       | 40.9 |
| Base of pectoral fin length      | 10       | 4.0  | 9        | 4.0  |
| Base of anal fin length          | 59       | 23.6 | 53       | 23.6 |
| Base pelvic fin length           | 25       | 10.0 | 23       | 10.2 |
| Pre- first dorsal length         | 53       | 21.2 | 48       | 21.3 |
| Pre- second dorsal length        | 93       | 37.2 | 84       | 37.3 |
| Pre-pectoral length              | 50       | 20.0 | 46       | 20.4 |
| Pre-pelvic length                | 65       | 26.0 | 58       | 25.8 |
| Pre-anal length                  | 104      | 41.6 | 88       | 39.1 |
| <b>Meristic counts</b>           |          |      |          |      |
| First Dorsal fin rays            | III      |      | III      |      |
| Second Dorsal fin rays           | 34       |      | 34       |      |
| Pectoral fin rays                | 14       |      | 14       |      |
| Pelvic fin rays                  | XV       |      | XVI      |      |
| Anal fin rays                    | 28       |      | 28       |      |
| <b>Total body weight (gram)</b>  | 209      |      | 126      |      |

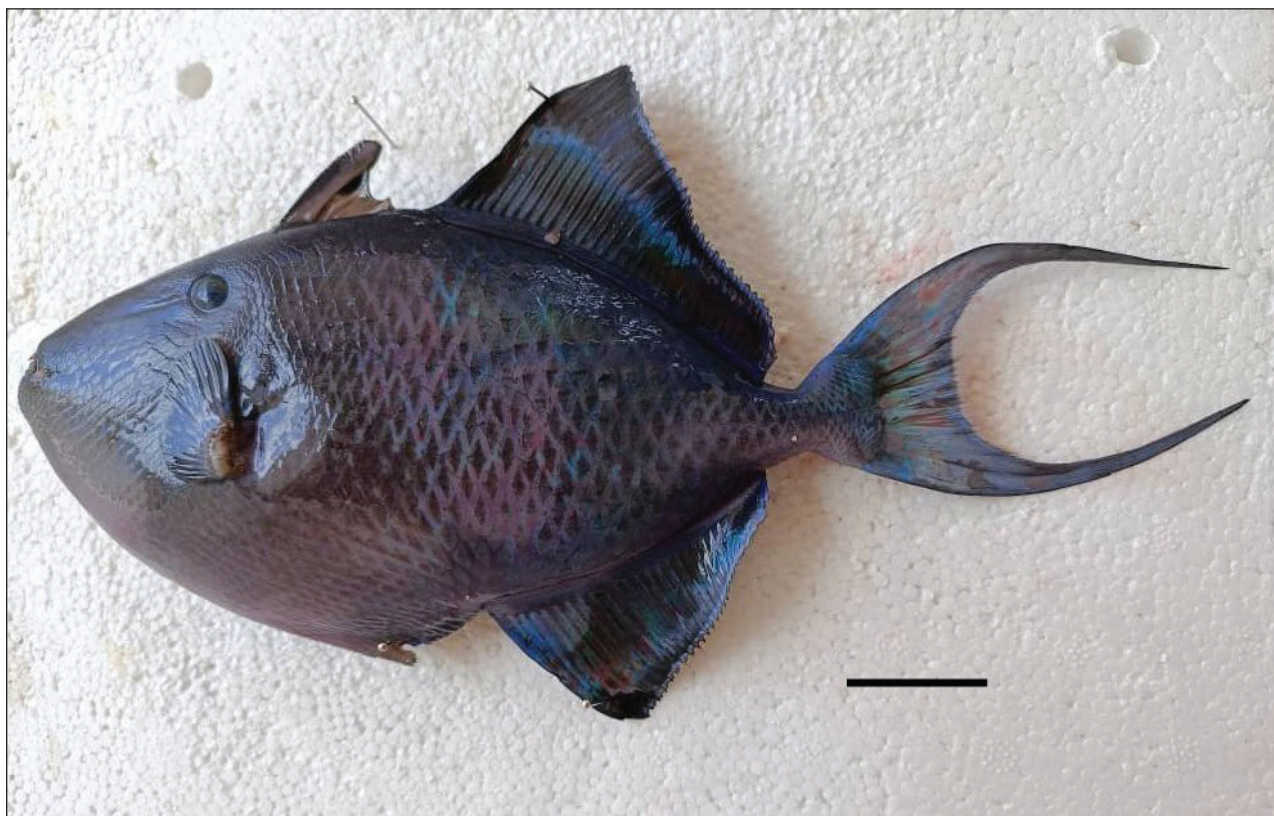
lunate, with upper and lower lobes extended into filaments; head and body bluish black. Colour: ground colour of body and fins blackish-brown, with a darker stripe running from mouth to pectoral fin base; posterior margin of caudal fin featuring a lunar-shaped white bar.

All these characters are completely consistent with Fischer & Bianchi (1984), Randall *et al.* (1990), Heemstra & Randall (1993), and Heemstra *et al.* (2022). The findings constitute the first record of the species from the Syrian coast (Saad, 2005; Ali, 2018), as well as in the Mediterranean Sea, where this species had not been recorded previously (Golani *et al.*, 2021). However, these observations are not sufficient to suggest that a viable population of the species is

successfully established in Syrian marine waters. Additional records are necessary to determine the true status of the species in the study area and the broader Mediterranean Sea.

*O. niger* is relatively abundant in the Red Sea (Golani & Bogorodsky, 2010; Golani & Fricke, 2018). It has also been recorded along the Egyptian coast of the Red Sea (El Sayed *et al.*, 2017), in the Jordanian Gulf of Aqaba (Khalaf, 2004), and in Somalia (Sommer *et al.*, 1996). *O. niger* is known to be a strong swimmer (Randall *et al.*, 1990), therefore, given its proximity to the Syrian coast, a migration from the Red Sea through the Suez Canal could be considered a plausible hypothesis. *O. niger* is a new Lessepsian migrant (*sensu* Por, 1971), contributing to the increasing number of alien fishes in





**Fig. 2:** *Odonus niger* (ref. 2332) captured 1 km off Baniyas city, Syrian coast. Scale bar = 30 mm.

**Sl. 2:** *Primerek vrste* *Odonus niger* (ref. 2332), *ujet v vodah, oddaljenih 1 km od mesta Baniyas, siraska obala.* *Merilo = 30 mm.*

the Mediterranean. According to Golani *et al.* (2021), 75% of the exotic species recorded in the Mediterranean Sea to date originate from the Indo-Pacific, primarily from the Red Sea. However, as suggested by Golani *et al.* (2021), other vectors may also be responsible for the introduction of many exotic species, including ship ballast waters and aquarium releases.

The latter cause should be particularly considered in relation to *O. niger*, as it was found to apply to *B. conspicillum* (Weitzmann *et al.*, 2015). Randall *et al.* (1990) noted that these balistid species are highly valued and very popular in aquariums, with many available for sale on various online platforms. Therefore, a management plan should be implemented

in local fisheries, in cooperation with fishermen, to identify the causes of new arrivals, monitor their presence, and potentially contribute to the establishment of a viable population of *O. niger* in the study area and throughout the Mediterranean Sea.

#### ACKNOWLEDGEMENTS

The authors wish to thank Mr. Ali Mousa for collecting and providing the specimens of the Red-toothed triggerfish *O. niger*. They are also grateful to two anonymous referees for their useful and helpful comments which considerably improved the scientific quality of the original manuscript.

## PRVI ZAPIS O POJAVLJANJU RDEČEZOBE BALESTRE *ODONUS NIGER* (BALISTIDAE) IZ SIRSKÉ OBALE (VZHODNO SREDOZEMSKO MORJE)

Malek ALI

Marine Sciences Laboratory, Production Animals Department, Faculty of Agriculture, Tishreen University, Lattakia, Syria  
e-mail: malekfaresali@gmail.com

Aola FANDI

Biology Department, Faculty of Sciences, Tartous University, Syria

Christian CAPAPÉ

Laboratoire d'Ichtyologie, Université de Montpellier, 34095 Montpellier cedex 5, France  
e-mail: capape@orange.fr

### POVZETEK

Avtorji poročajo o prvi najdbi rdečezobe balestre *Odonus niger* (Rüppell, 1836) v Sredozemskem morju. Gre za dva primerka, ujeta v sirskih vodah (vzhodno Sredozemsko morje), ki sta merila 250 mm in 225 mm v dolžino in tehtala 209 g in 126 g. Vrsta domuje v Indo-zahodnem Pacifiku, vključno z Rdečim morjem, na podlagi česar avtorji sklepajo, da je *O. niger* lesepska selivka, ki je prišla v Sredozemsko morje skozi Sueški prekop. Vendar drugih razlag za njegovo pojavljanje v Sredozemskem morju, kot je prihod z balastnimi vodami ladij ali izpust iz akvarijev, ni mogoče popolnoma izključiti. Ta novi zapis o pojavljanju potrjuje, da število tujih vrst, ki vstopajo v Sredozemsko morje, še vedno narašča, in narekuje potrebo po nadaljnjem spremljanju te vrste na proučevanem območju, na podlagi katerega bo možno opredeliti pravi status.

**Ključne besede:** *Odonus niger*, lesepska selivka, akvaristika, vzhodni Levant, Sredozemsko morje

## REFERENCES

- Ali, M. (2018):** An updated Checklist of the Marine fishes from Syria with emphasis on alien species. *Medit. Mar. Sci.*, 19, 388-393.
- Bello, G., R. Causse, L. Lipej & J. Dulčić (2014):** A proposal best practice approach to overcome unverified and unverifiable «first records» in ichthyology. *Cybium*, 38(1), 9-14.
- Bilecenoglu, M., M. Kaya, B. Cihangir & E. Çiçek (2014):** An updated check list of the marine fishes of Turkey. *Turk. J. Zool.*, 38, 901-929.
- El Sayed, H., K. Akel. & P.K. Karachle (2017):** The marine ichthyofauna of Egypt. *Egyptian J. Aquat. Biol. Fish.*, 21(3), 81-116.
- Fischer, W. & G. Bianchi (1984):** FAO Species Identification Sheets for Fishery Purposes Western Indian Ocean (Fishing Area 51. Volume 1. FAO, Rome, 606 pp.
- Golani, D. (2005):** Check-list of the Mediterranean Fishes of Israel. *Zootaxa*, 947, 1-200.
- Golani, D. & S. Bogorodsky (2010):** The Fishes of the Red Sea—Reappraisal and Updated Checklist. *Zootaxa*, 2463, 1-135.
- Golani, D. & R. Fricke (2018):** Checklist of the Red Sea Fishes with delineation of the Gulf of Suez, Gulf of Aqaba, endemism and Lessepsian migrants. *Zootaxa*. 4509, 1-215.
- Golani, D., E. Azzurro, J. Dulčić, E. Massuti & L. Orsi-Relini (2021):** Atlas of Exotic Fishes in the Mediterranean Sea. Second edition. [F. Briand, Ed.]. CIESM Publishers, Paris, Monaco, 365 pp.
- Gruvel, A. (1931).** Les états de Syrie, richesses marines et fluviales. Exploitation actuelle. Avenir. Société d'Éditions géographiques, maritimes et coloniales, Source gallica.bnf.fr / Bibliothèque nationale de France, 542 pp.
- Heemstra, P.C. & J.E Randall (1993):** FAO Species Catalogue. Vol. 16. Groupers of the world (family Serranidae, subfamily Epinephelinae). An annotated and illustrated catalogue of the grouper, rockcod, hind, coral grouper and lyretail species known to date. FAO Fisheries-Synopsis, Rome, FAO, 16(125), 382 pp.
- Heemstra, P.C., E. Heemstra, D.A. Ebert, W. Holleman & J.E. Randall (2022):** Coastal fishes of the western Indian ocean. Volume 5. South African Institute for Aquatic Biodiversity, a National Research Facility of the National Research Foundation (NRF-SAIAB), 491 pp.
- Khalaf, M. (2004):** Fish Fauna of the Jordanian Coast, Gulf of Aqaba, Red Sea. *JKAU: Mar. Sci.*, 15, 23-50.
- Kovačić, M., L. Lipej, J. Dulčić, S.P. Iglesias & M. Goren (2021):** Evidence-based checklist of the Mediterranean Sea fishes. *Zootaxa*, 4998, 1-115.
- Por, F.D. (1971):** One hundred years of Suez Canal- A century of lessepsian migration: retrospect and viewpoints. *Systems Biol.*, 20(2), 138-159.
- Ramachandran, S. & K.P. Philip (2010):** Population dynamics of red-toothed triggerfish *Odonus niger* (Ruppell, 1836) along southwest coast of India. *J. Mar. Biol. Ass. India*, 52, 105-108.
- Randall, J.E., G.R. Allen & R.C. Steene (1990):** Fishes of the Great Barrier Reef and Coral Sea. University of Hawaii Press, Honolulu, Hawaii. 506 pp.
- Saad, A. (2005):** Check-list of bony fish collected from the coast of Syria. *Turk. J. Fish. Aquat. Sci.*, 5, 99-106.
- Sommer, C., W. Schneider & J.-M. Poutiers (1996):** The living marine resources of Somalia. FAO species identification field guide for fishery purposes. FAO, Rome, 422 pp.
- Tortonese, E. (1986):** Balistidae. In: Whitehead, P.J.P., M.L. Bauchot, J.-C. Hureau, J. Nielsen & E. Tortonese (eds): Fishes of the North-eastern Atlantic and the Mediterranean, Vol. 1. Unesco, Paris, pp. 1335-1337.
- Weitzmann, P., E. Azzurro & L. Mercader (2015):** First sighting of *Zebrasoma flavescens* (Teleostei:Acanthuridae) and *Balistoides conspicillum* (Teleostei: Balistidae) in the Mediterranean Sea: two likely aquarium releases. *Medit. Mar. Sci.*, 161, 147-150.