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VSEBINA / *INDICE GENERALE / CONTENTS*

BIOTSKA GLOBALIZACIJA
GLOBALIZZAZIONE BIOTICA
BIOTIC GLOBALIZATION

Alen SOLDO, Rigers BAKIU & Sherif DURMISHAJ The First Record of Bastard Grunt *Pomadasys incisus* (Bowdich, 1825) in Albanian Waters (Adriatic Sea) 1
Prvi zapis o pojavljanju neprave prašičevke Pomadasys incisus *(Bowdich, 1825) v albanskih vodah (Jadransko morje)*

Pero UGARKOVIĆ, Ilija ĆETKOVIĆ, Olivera MARKOVIĆ, Aleksandar JOKSIMOVIĆ, Nikola ĐORĐEVIĆ & Jakov DULČIĆ Additional Records of the Bastard Grunt, *Pomadasys incisus* (Bowdich, 1825), from the Eastern Adriatic Sea 7
Dodatne najdbe neprave prašičevke, Pomadasys incisus *(Bowdich, 1825), iz vzhodnega Jadranskega morja*

Rüştü KİRMAN & Murat BİLECENOĞLU Significant Range Expansion of *Sepioteuthis lessoniana* (Cephalopoda: Loliginidae) in the Aegean Sea Based on Scuba and Photographic Observations 15
Znatno razširjanje areala vrste Sepioteuthis lessoniana *(Cephalopoda: Loliginidae), v Egejskem morju na podlagi podvodnih opazovanj in fotografiranja*

Adrian BRAJKOVIĆ, Iris MATULJA & Neven IVEŠA Conquering the North: New Occurrence of the Common Lionfish, *Pterois miles* (Bennett, 1828), in the Adriatic Sea 21
Osvajanje severa: novi zapis o pojavljanju navadne plamenke, Pterois miles *(Bennett, 1828), v Jadranskem morju*

Alan DEIDUN, Bruno ZAVA, Maria CORSINI-FOKA, Arnold SCIBERRAS & Alessio MARRONE First Record of the Devil Firefish *Pterois miles* (Bennett, 1828) (Actinopterygii: Scorpaenidae) from Maltese Coastal Waters 29
Prvi zapis o pojavljanju plamenke Pterois miles *(Bennett, 1828) (Actinopterygii: Scorpaenidae) v malteških obalnih vodah*

Chirine HUSSEIN, Amir IBRAHIM, Firas ALSHAWY, Mouina BADRAN & Rahaf ABO ASA First Mediterranean Record of the Diagonal Butterflyfish, *Chaetodon fasciatus* Forsskål, 1775, Reported from Syrian Waters 35
Prvi sredozemski zapis o pojavljanju poševnoprogaste ščetinozobke, Chaetodon fasciatus *Forsskål, 1775, iz sirskih voda*

Houssein ELBARAASI, Tarek SHOEIB, Mona SAID & Laith A. JAWAD A Further Record of the Barred Knifejaw, *Oplegnathus fasciatus* (Temminck & Schlegel, 1844), a Pacific Species, from the Mediterranean: A New Record from Benghazi, Libya 41
Novi zapis o vrsti Oplegnathus fasciatus *(Temminck & Schlegel, 1844), pacifiški vrsti, v Sredozemlju: nova najdba iz Bengazija v Libiji*

Alen SOLDO & Rigers BAKIU Rapid Increase in Records of the Invasive Silver-cheeked Toadfish *Lagocephalus sceleratus* (Gmelin, 1789) in the Adriatic Sea 49
Hitro naraščanje pojavov invazivne srebrnoproge napihovalke Lagocephalus sceleratus *(Gmelin, 1789) v Jadranskem morju*

Gerasimos KONDYLATOS, Konstantinos KALAENTZIS, Styliani MINOUDI & Maria CORSINI-FOKA Further Molecular Identification Confirms the Occurrence of *Lagocephalus guentheri* Miranda Ribeiro, 1915 in the Aegean Coastal Waters of Greece 55
Nadaljnja molekularna identifikacija potrjuje prisotnost vrste Lagocephalus guentheri *Miranda Ribeiro, 1915 v egejskih obalnih vodah Grčije*

Deniz ERGÜDEN & Cem ÇEVİK Length–Weight and Length–Length Relationships, and Condition Factor of *Ambassis dussumieri* Cuvier, 1828, in the Northeastern Mediterranean, Türkiye 65
Dolžinsko-masni odnos med dolžino in kondicijskim faktorjem pri vrsti Ambassis dussumieri *Cuvier, 1828, v severovzhodnem Sredozemskem morju, Turčija*

Okan AKYOL & HALIL ŞEN Unexpected Occurrence of Prussian Carp *Carassius gibelio* (Cyprinidae) in Homa Lagoon (Izmir Bay, Aegean Sea) 73
Nepričakovani pojav srebrnega koreslja Carassius gibelio *(Cyprinidae) v laguni Homa (Izmirski zaliv, Egejsko morje)*

SREDOZEMSKE HRUSTANČNICE
SQUALI E RAZZE MEDITERRANEE
MEDITERRANEAN SHARKS AND RAYS

Terry CARBON, Emily GIGNON, Justine LALLAU-VAZZOLER, Hugo MENARD, Claudio BARRIA, Ana I. COLMENERO & Nicolas ZIANI Precopulatory Behaviour of *Pteroplatytrygon violacea* (Myliobatiformes: Dasyatidae) in the Northwestern Mediterranean 81
*Predkopulacijsko vedenje vijoličnega morskega biča (*Pteroplatytrygon violacea*) (Myliobatiformes: Dasyatidae) v severozahodnem Sredozemlju*

Hakan KABASAKAL Distribution of *Odontaspis ferox* in the Mediterranean Sea: Insights from Spatial and Temporal Analyses 87
Razširjenost vrste Odontaspis ferox *v Sredozemskem morju: Spoznanja na podlagi prostorskih in časovnih analiz*

Hristina GELEVSKA, Borut MAVRIČ, Lovrenc LIPEJ & Christian CAPAPÉ Is the Gulf of Trieste a potential nursery area for some elasmobranch species? 99
Ali je Tržaški zaliv potencialno območje odraščanja (jaslice) za določene vrste hrustančnic?

IHTIOFAVNA
ITTIOFAUNA
ICHTHYOFAUNA

Cem DALYAN, Yunus GÖNÜL, Mahmud Samed ŞAHİNOĞULLARI & Hakan KABASAKAL New data on the Occurrence and Morphology of the Armless Snake Eel, *Dalophis imberbis* (Ophichthidae), from the Northeastern Mediterranean Sea 119
Novi podatki o pojavljanju in morfologiji kačaste jegulje, Dalophis imberbis *(Ophichthidae), iz severovzhodnega Sredozemskega morja*

Chirine HUSSEIN, Firas ALSHAWY & Amir IBRAHIM First Record of the Mediterranean Dealfish, *Trachipterus trachypterus* (Gmelin, 1789) (Trachipteridae), in Syrian Marine Waters 127
Prvi zapis o pojavljanju kosice, Trachipterus trachypterus *(Gmelin, 1789) (Trachipteridae), v sirskih morskih vodah*

Igor AGOSTINI & Okan AKYOL On the Occurrence of the Currently Largest Recorded *Pagellus erythrinus* (Sparidae) in the Tyrrhenian Sea (Italy) 133
O pojavljanju trenutno največjega evidentiranega primerka vrste Pagellus erythrinus *(Sparidae) v Tirenskem morju (Italija)*

Ismail Burak DABAN & Yusuf ŞEN Substantiated Record and Preliminary Biological Insights of *Microlipophrys dalmatinus* (Steindachner & Kolombatović, 1883) from the Sea of Marmara, Türkiye 141
Potrjen zapis o pojavljanju in predhodna biološka spoznanja o vrsti Microlipophrys dalmatinus *(Steindachner & Kolombatović, 1883) iz Marmarskega morja, Turčija*

Zeliha ERDOĞAN, Gülçin ULUNEHIR AYDIN, Hatice TORCU-KOÇ & Tuğba ANBAROĞLU Population Study of *Trachurus mediterraneus* Focused on Reproductive Biology in Edremit Bay, Northern Aegean Sea 151
*Razmnoževalna biologija sredozemskega šura (*Trachurus mediterraneus*) v sklopu populacijske raziskave v Edremitskem zalivu (severno Egejsko morje)*

MORSKA FAVNA
FAUNA MARINA
MARINE FAUNA

Francesco TIRALONGO, Paola LEOTTA & Riccardo MARTELLUCCI *Physalia physalis* in the central Mediterranean Sea: Recent observations associated with mass strandings of *Velella velella* and surface circulation dynamics 165
*Portugalska ladjica (*Physalia physalis*) v osrednjem Sredozemskem morju: nedavna opažanja v povezavi z masovnimi nasedanji morskega jadrčka (*Velella velella*) in dinamiko površinskega kroženja vode*

Andrea LOMBARDO, Juba CHABANE & Rachida GHALMI First Contribution to the Study of the "Sea Slug" Fauna (Gastropoda, Heterobranchia) of the Algerian coast 177
Prvi prispevek k proučevanju favne „golih morskih polžev" (Gastropoda, Heterobranchia) alžirske obale

Borut MAVRIČ, Tjaša PREMRL, Martin MAVRIČ, Tina MIRT, Neža LEBAN, Tihomir MAKOVEC & Lovrenc LIPEJ Assessing Soft-Bottom Epibenthıc Communities: Methodologıcal Insıghts into Dredgıng and Vıdeo Surveys 203
Ocenjevanje epibentoških združb mehkega dna: metodološki vpogledi v dredžanje in video preglede

FAVNA
FAUNA
FAUNA

Kim LEBAN, Iztok ŠKORNIK, Špela ČONČ, Mateja BREG VALJAVEC, Žan KURALT, Lenart ŠTAUT, Jure TIČAR, Katarina POLAJNAR HORVAT, Primož GAŠPERIČ, Aleš SMREKAR & Melita VAMBERGER Habitat Insights for the European Pond Turtle (*Emys orbicularis*) in the Coastal Wetland Area Sečovlje Salina Nature Park, Slovenia 221
*Habitatne značilnosti močvirske sklednice (*Emys orbicularis*) v krajinskem parku Sečoveljske soline, Slovenija*

Leon CIMERMAN & Matija KRIŽNAR *Najdbe pleistocenske avifavne v kamnolomu Črni Kal (Primorska, Slovenija)* 243
Pleistocene Avifauna Finds in the Črni Kal Quarry (Primorska Region, Slovenia)

Kazalo k slikam na ovitku 255
Index to images on the cover 255

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FIRST RECORD OF THE MEDITERRANEAN DEALFISH, *TRACHIPTERUS TRACHYPTERUS* (GMELIN, 1789) (TRACHIPTERIDAE), IN SYRIAN MARINE WATERS

Chirine HUSSEIN
Department of Fisheries Resources, High Institute of Marine Research‘ Lattakia University-Syria

Firas ALSHAWY
Faculty of Veterinary Medicine, AlFurat University-Syria

Amir IBRAHIM
Department of Fisheries Resources, High Institute of Marine Research‘ Lattakia University-Syria
e-mail: amir.ali.ibrahim@latakia-univ.edu.sy

ABSTRACT

Over the past few decades, the Mediterranean Sea has accommodated an increasing number of fish species arriving from the Atlantic Ocean via the Strait of Gibraltar, as well as from the Indo-Pacific region and the Red Sea via the Suez Canal. The ribbonfish (Trachipteridae) are rare deep-sea fishes only recorded in limited areas of the Mediterranean. The Mediterranean dealfish, Trachipterus trachypterus*, a member of the family Trachipteridae, is scientifically documented here for the first time from the Syrian coast (eastern Mediterranean).*

Key words: Mediterranean, Trachipteridae, Syrian marine water, *Trachipterus trachypterus*

PRIMA SEGNALAZIONE DEL PESCE NASTRO, *TRACHIPTERUS TRACHYPTERUS* (GMELIN, 1789) (TRACHIPTERIDAE), NELLE ACQUE MARINE SIRIANE

SINTESI

Negli ultimi decenni, il Mediterraneo ha accolto un numero crescente di specie ittiche provenienti dall'Oceano Atlantico attraverso lo Stretto di Gibilterra, nonché dalla regione Indo-Pacifica e dal Mar Rosso attraverso il Canale di Suez. I pesci nastro (Trachipteridae) sono rari pesci di acque profonde, segnalati solo in aree limitate del Mediterraneo. Nell'articolo il pesce nastro, Trachipterus trachypterus*, appartenente alla famiglia Trachipteridae, viene documentato scientificamente per la prima volta lungo la costa siriana (Mediterraneo orientale).*

Parole chiave: Mediterraneo, Trachipteridae, acque marine siriane, *Trachipterus trachypterus*

INTRODUCTION

Over the past few decades, the Mediterranean Sea has accommodated an increasing number of fish species arriving from the Atlantic Ocean via the Strait of Gibraltar (Azzurro *et al.*, 2022), as well as from the Indo-Pacific region and the Red Sea via the Suez Canal (Galil *et al.*, 2015; Ibrahim *et al.*, 2022). This biogeographic expansion signals changing ecological dynamics within the marine ecosystem of the area. Such expansion is promoted by climate change, hydrological processes, and human activities, and reflects the species' need to spread into new habitats that ensure their survival (Armas & Vila, 2019). Thus, the Mediterranean Sea occasionally witnesses the emergence of species far from their original environments, driven to seek prey in new areas (Ibrahim *et al.*, 2019; Orfanidis *et al.*, 2019).

The ribbonfish (Trachipteridae) are rare deep-sea fishes globally distributed in the eastern Atlantic, including the western Mediterranean, from Morocco to South Africa (Heemstra & Kannemeyer, 1986), as well as in the western Pacific (Japan and New Zealand) and the southeastern Pacific (Nakamura *et al.*, 1986). *Trachipterus trachypterus* (Gmelin, 1789), one of the family's member species, is characterized by elongated, ribbon-like bodies and large, elongated dorsal fins (Carpenter, 2002). It is usually found in bathypelagic habitats at depths between 300 and 600 m (Froese & Pauly, 2025). The species has previously been reported as rare in some areas of the Mediterranean Sea (*e.g.*, Garibaldi, 2015; Albano *et al.*, 2022; Geraci *et al.*, 2022; Gökoğlu & Özen, 2021). In the present study, *Trachipterus trachypterus* is scientifically documented for the first time from the Syrian coast (eastern Mediterranean).

MATERIAL AND METHODS

On 19 October 2025, a local fisherman caught a single *T. trachypterus* specimen using longline fishing in the marine waters off the city of Baniyas, Syria (N35°14'35.11", E35°55'12"; Fig. 1). The presence of the species in the area came under attention ichthyologists through cooperation with fishermen. This specimen was identified following the criteria in Figueiredo *et al.* (2008); Albano *et al.* (2022), and Geraci *et al.* (2022). Meristic counts were taken, and morphometric measurements were recorded to the nearest 0.5 cm or 0.1 g. An X-ray of the specimen was performed to determine the number of vertebrae and ensure an accurate identification of the species. The specimen was then photographed, preserved in 7% formaldehyde, and deposited as a reference sample (ref. no. HIMR-2026-TA) at the fisheries laboratory of the High Institute of Marine Research, Latakia University (Latakia, Syria).

RESULTS AND DISCUSSION

A specimen of the Mediterranean dealfish, *Trachipterus trachypterus* (Gmelin, 1789) (Fig. 2), was caught at a depth of 850 m. The specimen was scaleless, with a lateral line of 80 forward-directed spines tapering from back to front. Its morphological characters were as follows: body long, significantly compressed and wide, with the maximum width midway between the head and the anus, and tapering towards the caudal fin; eyes large; mouth large and mobile, projecting forward and downwards; dorsal fin long, extending along the entire body, pectoral and pelvic fins relatively small. Coloration: body shiny silver with a light black spot behind the head and a black marking extending from mouth towards head up to the beginning of dorsal fin; dorsal fin transparent orange-red. The specimen's measurements and counts are presented in Table 1.

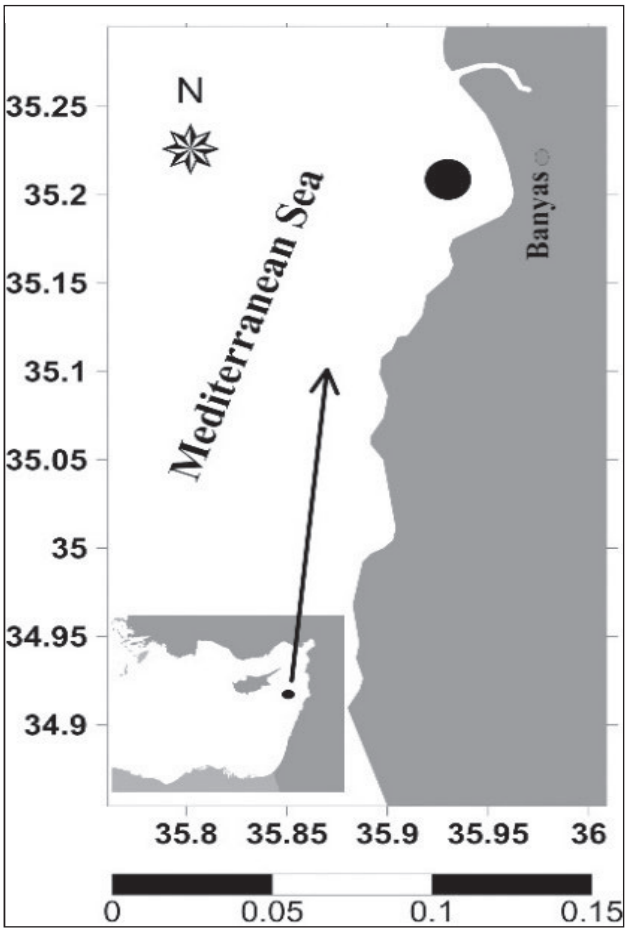

Fig. 1: Map showing the fishing area where the** T. trachypterus **specimen was caught, off the city of Baniyas, Syria.
Sl. 1: Zemljevid obravnavanega območja z lokaliteto Baniyas, kjer je bil ujet primerek vrste** T. trachypterus**.

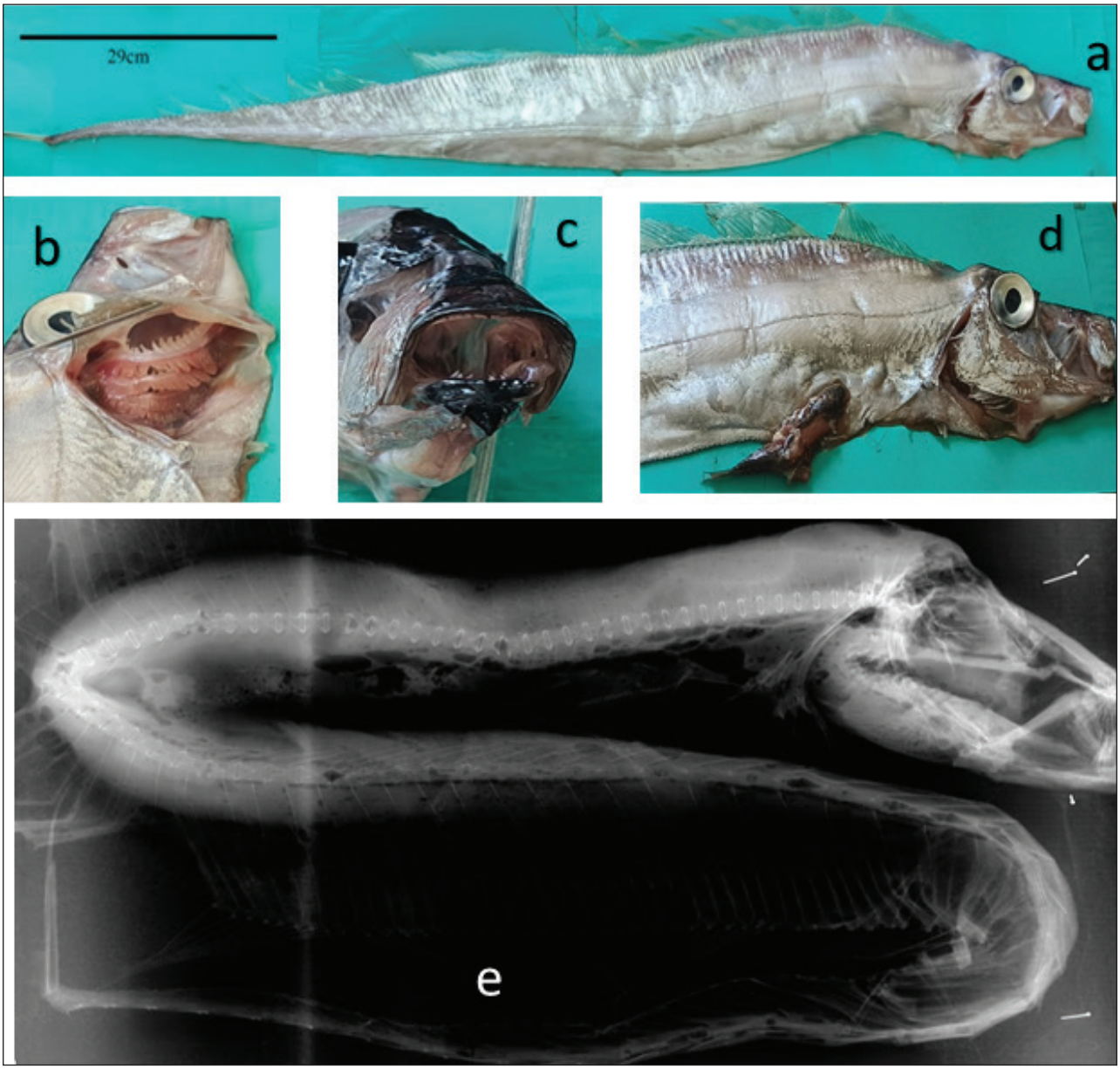

Fig. 2: Specimen of** T. trachypterus **collected from Syrian marine waters: (a) full lateral view; (b) fresh gill rakers; (c) head showing black marking; (d) post-dissection view, with stomach containing remains of a semi-digested local fish; (e) x-ray image of the vertebral column.
Sl. 2: Primerek vrste** T. trachypterus**, ujet v sirskih morskih vodah: (a) stranski pogled na celoten primerek; (b) sveži škržni izrastki; (c) glava s črno pego; (d) pogled po sekciji z želodcem z ostanki delno prebavljenih lokalnih rib; (e) x-ray posnetek hrbtenice.

Its morphological features are consistent with those reported for *T. trachypterus* by Figueiredo *et al.* (2008), Lipej *et al.* (2018), Albano *et al.* (2022), and Geraci *et al.* (2022).

T. trachypterus is considered a rare mesopelagic species, typically found stranded in deep waters across various regions of the Mediterranean Sea, including the Adriatic, Ionian, and Aegean Seas, Spain, the Strait of Sicily, and Türkiye (Lipej *et al.*, 2018; Macali *et al.*, 2020; Albano *et al.*, 2022, Geraci *et al.*, 2022; Stipa *et al.*, 2022). As previous surveys (Ibrahim *et al.*, 2025) did not document *T. trachypterus* in Syrian waters, this study reports the first record of the species on the Syrian coast. This new record, along with that reported from the Gulf of Antalya, Türkiye (Gökoğlu & Özen,

Tab. 1: Morphometric data of the** T. trachypterus **specimen caught off the coast of Baniyas, Syria.
Tab. 1: Morfometrični podatki za primerek vrste** T. trachypterus**, ujet ob obali Baniyas, Sirija.

Characteristics	Measurement (cm or g) / Counts	% of total length
Total length	138	-
Body depth (behind the head)	13.5	9.78
Body depth (near the tail)	4.5	3.26
Head Length	15	10.86
Eye dimeter	4	2.89
Pupil diameter	1.5	1.08
Mouth diameter	5.5	3.98
Caudal fin length	12	8.88
Total weight	973.52	-
No. teeth in lower jaw	7	-
No. teeth in upper jaw	7	-
No. dorsal fin rays	167	-
No. spines on lateral line	80	-
No. vertebra in vertebral column	89	-

2021), reveals that *T. trachypterus* has spread its distribution pattern to the eastern Mediterranean, and highlights the need for developing an effective and comprehensive management plan to monitor the species in this region.

From a marine biodiversity perspective, this first record of *T. trachypterus* in Syrian marine waters reflects significant ecological changes that warrant monitoring due to potential impacts on local native species. The arrival of Atlantic species in the Mediterranean Sea may be a result of global warming and/or changes in ocean current patterns, facilitating the dispersion of marine biota into the region (Albano *et al.*, 2024). In addition, the establishment of this species may be supported by the available ecological niches and abundant food resources in Syrian marine waters (Gilaad *et al.*, 2017). The increasing frequency of new fish records off the Syrian coast, as reported by Ibrahim *et al.* (2025), underscores the need for structured survey programmes to detect non-native and exotic species, complemented by effective species identification methods such as eDNA metabarcoding (Ibrahim *et al.*, 2023; Xanthopoulou *et al.*, 2025).

CONCLUSIONS

This article confirms, for the first time, the presence of the Atlantic fish species *Trachipterus trachypterus* in the marine waters of Syria (eastern Mediterranean). The arrival of this species into the area may be attributed to global warming and/or changes in ocean current patterns.

ACKNOWLEDGEMENTS

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PRVI ZAPIS O POJAVLJANJU KOSICE, *TRACHIPTERUS TRACHYPTERUS* (GMELIN, 1789) (TRACHIPTERIDAE), V SIRSKIH MORSKIH VODAH

Chirine HUSSEIN
Department of Fisheries Resources, High Institute of Marine Research‘ Lattakia University-Syria

Firas ALSHAWY
Faculty of Veterinary Medicine, AlFurat University-Syria

Amir IBRAHIM
Department of Fisheries Resources, High Institute of Marine Research‘ Lattakia University-Syria
e-mail: amir.ali.ibrahim@latakia-univ.edu.sy

POVZETEK

V zadnjih nekaj desetletjih se v Sredozemskem morju pojavlja vse večje število vrst rib, ki prihajajo iz Atlantskega oceana prek Gibraltarske ožine, pa tudi iz indo-pacifiške regije in Rdečega morja prek Sueškega prekopa. Kosice (Trachipteridae) so redke globokomorske ribe, ki se pojavljajo le na omejenih območjih Sredozemskega morja. Avtorji sporočajo o prvem znanstveno dokumentiranem pojavljanju kosice, Trachipterus trachypterus*, iz družine Trachipteridae, s sirske obale (vzhodno Sredozemlje).*

Ključne besede: Sredozemsko morje, Trachipteridae, sirske morske vode, *Trachipterus trachypterus*

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