

ANNALES

Anali za istrske in mediteranske študije
Annali di Studi istriani e mediterranee
Annals for Istrian and Mediterranean Studies
Series Historia Naturalis, 35, 2025, 2





ANNALES

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

Series Historia Naturalis, 35, 2025, 2

ISSN 1408-533X
e-ISSN 2591-1783

UDK 5

Letnik 35, leto 2025 številka 2

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

Alessandro Acquavita (IT), Nicola Bettoso (IT), Christian Capape (FR), Darko Darovec, Dušan Devetak, Jakov Dulčić (HR), Edy Fantinato (IT), Serena Fonda Umani (IT), Andrej Gogala, Daniel Golani (IL), Danijel Ivajnskič, Hakan Kabasakal (TR), Mitja Kaligarič, Marcelo Kovačič (HR), Petar Kružić (HR), Lovrenc Lipej, Vesna Mačić (ME), Alenka Malej, Borut Mavrič, Patricija Mozetič, Martina Orlando-Bonaca, Michael Stachowitsch (AT), Francesco Tiralongo (IT), 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.

Založnika/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: annalesSHN@nib.si, internet: www.zdjp.si

Redakcija te številke je bila zaključena 6. 12. 2025.

**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 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* / CONTENTSSREDOZEMSKA HRUSTANČNICE
SQUALI E RAZZE MEDITERRANEE
*MEDITERRANEAN SHARKS AND RAYS***Hakan KABASAKAL**

Analysis of Confirmed Shark Attacks
in the Eastern Mediterranean Sea and
the Sea of Marmara (1827–2025) 169
Analiza potrjenih napadov morskih psov
v vzhodnem Sredozemskem morju
in Marmarskem morju (1827–2025)

Alen SOLDO

Observations of a Juvenile Basking Shark
Cetorhinus maximus in the Adriatic Sea
Support the Hypothesis of a Distinct
Mediterranean Population 187
Opazovanja mladega morskega psa
orjaka (Cetorhinus maximus)
v Jadranskem morju podpirajo
hipotezo o ločeni sredozemski
populaciji

**Jacopo BERNARDI, Pero UGARKOVIĆ &
Ilija ČETKOVIĆ**

An Unusual Encounter with a Juvenile Kitefin
Shark, *Dalatias licha*, in Shallow Coastal
Waters of Montenegro (Adriatic Sea) 197
Nenavadno srečanje z mladim primerkom
klinoplavutega morskega psa, Dalatias licha,
v plitvih obalnih vodah Črne gore
(Jadransko morje)

**Cemal TURAN, Alen SOLDO, Servet A. DOĞDU,
Funda TURAN, Aysegül ERGENLER & Ali UYAN**

Identification of a Potential Nursery Ground
of the Spiny Butterfly Ray, *Gymnura altavela*,
in the Northeastern Mediterranean Sea, Türkiye 205
Identifikacija potencialnih jaslčic za
metuljastega skata, Gymnura
altavela, v severovzhodnem
Sredozemskem morju,
Turčija

**Alen SOLDO, Eleonora DE SABATA &
Simona CLO**

Recent Records of Critically Endangered
Common Guitarfish *Rhinobatos rhinobatos*
(Linnaeus, 1758) in the Northern
Mediterranean 213
Nedavni zapiski o pojavljanju kritično
ogroženega navadnega goslaša
Rhinobatos rhinobatos
(Linnaeus, 1758) v
severnem Sredozemlju

Hakan KABASAKAL & F. Saadet KARAKULAK

Demersal Elasmobranchs of the Sea of Marmara:
Updated Inventory, Taxonomic Issues and
Environmental Implications 221
Pridnene hrustančnice v Marmarskem morju:
posodobljena inventarizacija, taksonomska
vprišanja in okoljske posledice

IHTIOLOGIJA**ITTILOGIA****ICHTHYOLOGY****Jamila RIZGALLA, Amani FITORI, Francesco
TIRALONGO & Abdalrh BEN ABDALAH**

First Records of Blennies (Suborder
Blennioidea) off the Coast of Libya 245
Prvi zapisi o pojavljanju babic
(podred Blennioidea) ob
libijski obali

**Farid HEMIDA, Sara LADOUL, Christian
REYNAUD & Christian CAPAPÉ**

Confirmed Occurrence of the Mediterranean
Spearfish *Tetrapturus belone* (Osteichthyes:
Istiophoridae) from the Algerian Coast
(Southwestern Mediterranean Sea) 257
Potrjeno pojavljanje sredozemske
jadrovnice, Tetrapturus belone
(Osteichthyes: Istiophoridae) iz
alžirske obale (jugovzhodno
Sredozemsko morje)

Lana KHREMA, Adib SAAD & Christian CAPAPÉ

First Substantiated Record of Blackfish
Centrolophus niger (Centrolophidae)
from the Syrian Coast (Eastern
Mediterranean Sea) 263
Prvi potrjen zapis črnuha, Centrolophus niger
(*Centrolophidae*), s sirske obale
(vzhodno Sredozemsko morje)

Amir IBRAHIM, Chirine HUSSEIN, Firas ALSHAWY & Alaa ALCHEIKH AHMAD

Marine Fishes (Teleostei / Osteichthyes)
of Syria (Eastern Mediterranean):
an Updated Checklist 269
Morske ribe (Teleostei / Osteichthyes)
Sirije (vzhodno Sredozemsko morje):
posodobljeni seznam vrst

BIOTSKA GLOBALIZACIJA
GLOBALIZZAZIONE BIOTICA
BIOTIC GLOBALIZATION

Paola LEOTTA, Rocco CICCARELLA, Ruben GARRANO, Enrico LA SPINA, Daniele TIBULLO & Francesco TIRALONGO

Cassiopea andromeda at the Southernmost
Tip of Italy: a Recent Arrival or an
Overlooked Resident? 287
Tujerodni klobučnjak Cassiopea andromeda
na najjužnejši konici Italije: nedavni
prišlek ali spregledan prebivalec?

Mourad CHÉRIF, Rimel BENMESSAOUD, Sihem RAFRAFI-NOUIRA, Mohamed Nouri AYADI & Christian CAPAPÉ

First Substantiated Record of the Golden-Banded
Goatfish *Upeneus moluccensis* (Osteichthyes:
Mullidae) from the Coast of Tunisia
(Central Mediterranean Sea) 295
Prvi potrjen zapis o zlatoprogem bradaču
Upeneus moluccensis (Osteichthyes: Mullidae)
z obale Tunizije (osrednje Sredozemsko morje)

Nikola DJORDJEVIĆ, Slavica PETOVIĆ, Ilija ČETKOVIĆ, Borut MAVRIČ & Lovrenc LIPEJ

New Record of the Long-Jawed Squirrelfish,
Holocentrus adscensionis (Osbeck, 1765),
in the Adriatic Sea 303
Novi zapis o pojavljanju veveričjaka vrste
Holocentrus adscensionis (Osbeck, 1765)
v Jadranskem morju

MORSKA FAVNA**FAUNA MARINA****MARINE FAUNA****Nicola BETTOSO, Lisa FARESI, Saul CIRIACO, Marco FANTIN & Marco SEGARICH**

New Findings of the Cup-Shaped Demosponge
Calyx nicaeensis (Risso, 1826) on the Rocky
Outcrops in the Gulf of Trieste
(Northern Adriatic Sea) 311
Nove najdbe morskega keliha Calyx nicaeensis
(*Risso, 1826*) *na skalnih osamelcih v Tržaškem*
zalivu (severno Jadransko morje)

Aleksandra V. BORODINA & Yuri O. VELIAEV

Features of Lipid Accumulation in Striped Venus
Clam *Chamelea gallina* in the Sublittoral
Zone of the Crimean Coast (Black Sea) 319
Značilnosti kopičenja lipidov v navadni
venerici (Chamelea gallina) v obrežnem
pasu krimske obale (Črno morje)

Okan AKYOL & Oğuzhan TAKICAK

Recent Observations on *Monachus monachus*
(Phocidae) at Sea-Cage Fish Farms in Izmir
(Turkish Aegean Sea) 329
Nedavna opažanja primerkov Monachus monachus
(*Phocidae*) *v ribogojnicah z morskimi kletkami v*
Izmirju (turško Egejsko morje)

FLORA**FLORA****FLORA****Amelio PEZZETTA & Marco PAOLUCCI**

La Flora di Palena (Parco Nazionale della
Majella): Aggiornamento Floristico 337
Flora Palene (Nacionalni park Majella):
floristična posodobitev

DELO NAŠIH ZAVODOV IN DRUŠTEV
ATTIVITÀ DEI NOSTRI ISTITUTI E SOCIETÀ
ACTIVITIES BY OUR INSTITUTIONS AND
ASSOCIATIONS

Bojana LIPEJ

Reviving Landscapes, Connecting Species:
Lessons from the ReCo Project 383

IN MEMORIAM**Tom TURK**

V spomin Marjanu Richterju (1935–2025) 389

Kazalo k slikam na ovitku 391

Index to images on the cover 391

REVIVING LANDSCAPES, CONNECTING SPECIES: LESSONS FROM THE RECO PROJECT

Interreg
CENTRAL EUROPE



**Co-funded by
the European Union**



The ReCo project (Interreg Central Europe 2021–2027) demonstrates how coordinated ecosystem restoration and enhanced ecological cooperation can foster recovery of biodiversity along the European Green Belt. This unique corridor, spanning over 12,500 km and connecting 24 countries along the former Iron Curtain, represents a remarkable natural and cultural heritage. Serving as the backbone of the Pan-European Ecological Network, the Green Belt significantly contributes to Europe's green infrastructure. The area encompasses 40 national parks, and within a 50-km buffer on either side, over 3,200 protected areas which collectively cover almost all European biogeographical regions.

Building on six transboundary pilot actions, the ReCo project applied geo-information tools, data-driven management, and community-based approaches to counteract the degradation of key habitats and species. Its pilots demonstrate how restoration actions can be successfully transferred to other regions facing similar ecological challenges. The project also developed practical guidance for practitioners, prepared regional restoration plans, and supported policy integration, thereby contributing to the EU Biodiversity Strategy for 2030 and reinforcing the European Green Belt as a backbone for ecological coherence across the continent.

The project's significance and broader policy relevance were highlighted at the final ReCo conference, held on 5th of November 2025 at the European Parliament in Brussels. The event brought together Members of the European Parliament, representatives of the European Commission, national ministries, project partners, and NGOs from across Europe. Hosted by MEP Prof. dr. Danuše Nerudová,

the conference emphasized the Green Belt as both a biodiversity corridor and a symbol of European cooperation. In her opening remarks, she described it as a connecting element of natural and cultural heritage, and a testament to the EU's commitment to nature conservation and restoration. The presentation of the ReCo results showcased the importance of cross-border collaboration, habitat restoration, and species conservation across the six pilot regions in Poland, the Czech Republic, Germany, Austria, Italy, and Slovenia. A high-level panel discussion explored the Green Belt's role in shaping EU biodiversity policy, the practical challenges of restoration, and opportunities for future cooperation and sustainable development. The conference provided a comprehensive overview of project achievements, facilitated knowledge exchange and offered strategic insights on strengthening the Green Belt as a model for transnational ecosystem restoration.

The ReCo pilot actions provide practical examples of ecosystem restoration and connectivity enhancement. In Poland, Federacja Zielonych GAJA together with the West Pomeranian Nature Society strengthened the free-ranging European bison (*Bos bonasus*) population in the Ińsko Lakeland through long-term management, including breeding, reintroductions, GPS monitoring, winter feeding, veterinary care, and conflict mitigation. In Germany, BUND (Friends of the Earth Germany, Bavarian branch) and in the Czech Republic, Ametyst NGO, restored habitats for the freshwater pearl mussel (*Margaritifera margaritifera*) and the marsh fritillary butterfly (*Euphydryas aurinia*) by dismantling drainage infrastructure, removing non-native afforestation, rewetting wetlands and improving



First professional excursion of the ReCo project in the Czech Republic (photo: Sonia Pytkowska).

water quality and gravel-bed conditions, while also re-establishing the host plant *Succisa pratensis*. Along the Austrian–Czech border, Nationalpark Thayatal and Národní park Podyjí carried out a controlled reintroduction of the European wildcat (*Felis silvestris*), supported by camera trapping, genetic sampling, and GPS telemetry of two released individuals, complemented by the creation of native shrub corridors and stepping-stone habitats to facilitate safe movements. In Slovenia, BSC Kranj cooperated with local farmers to revitalise species-rich alpine meadows around Mount Golica by adapting mowing regimes, removing invasive shrub

encroachment and reseeding with native species, while also engaging the public through innovative AR/VR tools and volunteer-based traditional land-management activities. On the Pian del Grisa Plateau in Italy, WWF Italy restored degraded karst heathland and dry grassland by manually removing invasive shrubs, propagating native species in local nurseries and replanting them to enhance habitat continuity. Across all pilots, the combination of scientific monitoring, local knowledge and cross-border cooperation has proven essential for building resilient ecosystems and strengthening ecological connectivity throughout the Green Belt.

Based on this transnational framework, the pilot action implemented at the Škocjanski zatok Nature Reserve further demonstrates how climate-adaptive restoration can strengthen ecological resilience in coastal wetlands. Škocjanski zatok is a brackish nature reserve shaped by the dynamic interaction of marine and terrestrial habitats, making it highly sensitive to climate-induced sea-level rise and altered hydrological conditions. These pressures threaten halophytic vegetation, bird-nesting sites and the long-term stability of wetland communities, highlighting the need for adaptive management. The restoration pilot interventions focused on creating new habitats and enhancing ecosystem functionality. Two shallow mudflats in the central part of the lagoon were established in 2023, using redistributed sediment, which supported the expansion of halophytic vegetation and provided secure nesting sites for waterbirds, especially colonial-nesting terns.

Initial monitoring has produced promising results: within one year, new breeding colonies of the common tern (*Sterna hirundo*) and the little tern (*Sternula albifrons*) formed on the newly created islands, while vegetation surveys confirmed the expected development of halophytic communities. These outcomes demonstrate that targeted micro-topographic interventions can effectively strengthen the ecological functionality and climate resilience of brackish lagoons. The pilot demonstrates the transferability of methods such as artificial mudflat creation using locally sourced sediment, microhabitat shaping and adaptive water level management to other Mediterranean brackish wetlands. Technical approaches, such as sediment relocation with floating excavators, and integration of community science and public awareness activities are especially applicable to protected coastal zones. The project also provides a legal and procedural blueprint for restoration within protected areas, including



As part of the ReCo project, two new mudflats were created in the brackish lagoon of Škocjanski zatok (photo: Archive ŠZNR).

obtaining conservation consents and collaborating with municipal and port authorities.

Most importantly, the ReCo project fostered opportunities for expertise to be intertwined with relationships across multiple European borders, demonstrating that restoring ecosystems and reconnecting habitats is most successful when built on shared knowledge, cross-border cooperation and evidence-based practice. The pilot actions, from large herbivore conservation, wetland restoration, species reintroduction, alpine meadow revitalisation to karst landscape management, show how locally implemented interventions can contribute to a coherent ecological network stretching across Europe. By integrating scientific

monitoring, traditional land-management knowledge, community engagement and innovative tools, the project created a set of practical models that can be replicated well beyond the Green Belt.

Research co-financed by the "ReCo – Restoring degraded ecosystems along the Green Belt to improve and enhance biodiversity and ecological connectivity" (CE0100098) project, supported by the Interreg Central Europe Programme with co-financing from the European Regional Development Fund 2021–2027.

Bojana Lipej
DOPPS-BirdLife Slovenia