S.It.E. – SOCIETÀ ITALIANA DI ECOLOGIA

BOOK OF ABSTRACTS

XXXIV Congresso Nazionale della Società Italiana di Ecologia

Ecologia e sostenibilità:
strategie per affrontare le sfide del terzo millennio

2025

Caserta, 17 – 19 Settembre 2025

Libro degli abstract presentati al XXXIV Congresso della Società Italiana di Ecologia “Ecologia e sostenibilità: strategie per affrontare le sfide del terzo millennio” — Caserta, 17 – 19 Settembre 2025.

Volume curato da Alessandro Bellino ed edito dal Comitato organizzatore. Logo del convegno prodotto da Valerio Cenciarelli. Infrastruttura digitale per la gestione dei contributi (`www.sitetool.eu`) sviluppata da Alessandro Bellino.

I singoli contributi contenuti in questa pubblicazione e le eventuali responsabilità derivanti da essi rimangono di competenza degli autori.

Comitato scientifico

- Flora Angela Rutigliano (Presidente)
- Gianluca Sarà (Vicepresidente)
- Antonio Pusceddu (Past-President)
- Andrea Binelli
- Renato Casagrandi
- Pier Paolo Franzese
- Stefania Pinna
- Danilo Russo
- Salvatrice Vizzini
- Maria Cristina Mangano (Segretario Amministrativo)

Comitato organizzatore

- Università degli Studi della Campania “Luigi Vanvitelli”

  Flora Angela Rutigliano (Presidente), Simona Castaldi, Stefania Papa, Rosaria D’Ascoli, Giovanna Battipaglia, Rossana Marzaioli

- Università degli Studi di Napoli Federico II

  Simonetta Fraschetti, Giulia Maisto, Danilo Russo, Carmen Arena, Anna De Marco

- Università degli Studi di Napoli Parthenope

  Giovanni Fulvio Russo, Pier Paolo Franzese

- Università degli Studi di Salerno

  Daniela Baldantoni, Alessandro Bellino

- Università degli Studi del Sannio

  Flavia De Nicola

Indice

I Relazioni su invito

The current polycrisis and foresight in sustainability: A need for a new ecology?
Salvatore Aricò 2

Regenerating soil organic matter for the benefit of climate and food production: A systemic multifaceted approach
Maria Francesca Cotrufo 3

Enhancing marine conservation through better marine spatial planning: Science gaps, practical solutions, and recommendations
Vanessa Stelzenmüller 4

II Comunicazioni orali

1 Reti trofiche ed ecologia di comunità 6

Glaciers' ecological networks: Insights from two Italian glaciers
Roberto Ambrosini[1,2,3*], Francesca Pittino[4], Barbara Valle[5,6], Arianna Crosta[7,8], Lara Varchetta[1], Francesco Ficetola[1], Marco Caccianiga[9], Biagio Di Mauro[10], Mauro Gobbi[11], Valeria Lencioni[11], Francesco Simone Mensa[11], Anna Bonettini[12], Giovanni Prandi[13], Krzysztof Zawierucha[14], Taise Litholdo[1,2], Barbara Leoni[4], Flavia Dory[4], Andrea Franzetti[4] 7

First survey of epibenthic diatom assemblages on marine seagrasses in the Arabian Gulf
Concetta Auciello[1*], Chiara Pennesi[2], Claudia Ciniglia[1], Manuela Iovinella[1], Elio Pozzuoli[1], Stefania Papa[1], Salvatore Avilia[1], Lotfi Rabaoui[3], Mario De Stefano[1] 8

Plankton food webs as indicators of the ecosystem status to support the Marine Strategy Framework Directive: a case study from Campania region (Italy)
Daniele Bellardini[1,2*], Luca Russo[2], Maria Abagnale[3], Vincenzo Botte[3], Angela Buondonno[3], Raffaella Casotti[2], Gabriele Del Gaizo[3,4], Iole Di Capua[3,6], Marta Furia[3], Daniele Iudicone[2], Florian Kokoszka[3,5], Francesca Margiotta[3], Maria Grazia Mazzocchi[2], Maria Saggiomo[3], Diana Sarno[3,6], Simona Saviano[3], Isabella Percopo[3], Eugenia Tramontin[2], Anna Chiara Trano[2], Jessica Vannini[2,3], Daniela Cianelli[3], Priscilla Licandro[2,6], Paolo Vassallo[1], Domenico D'Alelio[2,6] 9

Ecological community succession on plastic panels in a polluted marine environment
Silvia Casabianca[1*], Marco Basili[2], Samuela Capellacci[1], Fabio Ricci[1], Antonella Penna[1], Elena Manini[2] 10

New insights on *Acanthaster plancii* outbreak in the Gulf of Oman (United Arab Emirates)
Eleonora Concari[1,3*], Enrico Montalbetti[1,3,4], Davide Maggioni[2,3,4], Federico Cerri[1,3], Henrik Stahl[5], Ally Landes[6], Paolo Galli[1,3,4], Davide Seveso[1,3,4] 11

Underwater photogrammetry in low visibility environments for ecological characterization and biomonitoring: preliminary findings
Andrea Sabino[1,2*], Alessandro Bergamasco[1], Fabrizio Bernardi Aubry[1], Marta Cosma[3], Sandra Donnici[3], Irene Guarneri[1], Giuseppe Pessa[4], Luigi Tosi[3], Annamaria Volpi Ghirardini[2], Marco Sigovini[1] 150

The fragility of Special Areas of Conservation in the Broad Area Site "Murge"
Donatella Valente[1,2*], Erica Maria Lovello[1], Antonella Albano[3], Irene Petrosillo[1,2] 151

Spatio-Temporal Landscape Transformation in the Monti Prenestini (Rome): Insights from Remote Sensing and Landscape Ecology
Marcello Vitale[1*], Giulia Perna[1], Danilo Lombardi[1] 152

The quest for conservation allies in Mediterranean islands and beyond
Ioannis Vogiatzakis[1*], Menelaos Stavrinides[2] 153

10 Ecologia ed educazione alla sostenibilità 154

Ecological and Social Preferences for the Management of Forest Bathing Sites in Italy
Sofia Baldessari[1*], Alessandro Paletto[1], Sandro Sacchelli[2] 155

The Evolution of Love. An educational framework to understand the history of Life.
Giuseppe Barbiero[1*] 156

Citizen Science in action: tracking species of (European) Union concern through the "AilantItaly" project
Federica Compagnone[1*], Marco Varricchione[1,2], Angela Stanisci[1,2], Leonardo Ancillotto[2,3], Claudia Angiolini[2,4], Domenico Sergio Antonacci[5], Emilio Badalamenti[2,6], Simonetta Bagella[2,7], Debora Barbato[2,8], Francesco Boscutti[2,9], Giuseppe Brundu[2,10], Thomas Campagnaro[2,11], Laura Celesti-Grapow[2,12], Sandra Citterio[2,13], Mirko Di Febbraro[1], Michele Finizio[1], Michele Innangi[1], Tommaso La Mantia[2,6], Vanessa Lozano[2,10], Lara Maistrello[2,14], Alessandro Mariggiò[15], Chiara Montagnani[2,13], Emiliano Mori[2,3], Michele Mugnai[16], Maria Petrillo[6], Lorenzo Pinzani[17], Stefano Raimondi[18], Giovanni Riveccio[7], Nicole Sebesta[19], Giacomo Trotta[9], Franziska Zemmer[20], Maria Laura Carranza[1,2] 157

Engaging citizens on the management of acquatic invasive alien species: the 'GuardIAnS of the biodiversity' OpenLab
Agnese Marchini[1*], Cecilia Bellotti[1], Elisabetta Zecchi[1], Daniele Paganelli[1] 159

Habitat tree: home for biodiversity. Outreach and environmental education opportunities
Emilio Padoa-Schioppa[1*], Elisa Cardarelli[2], Davide Corengia[3], Claudia Canedoli[1] 160

Social perception and biodiversity conservation in productive forests: comparison between Italy and Germany
Alessandro Paletto[1*], Carlotta Sergiacomi[2] 161

Tobacco smoke in the water: the *Daphnia magna* lesson
Stefania Pinna[1*], Martina Moccaldi[2], Serena Pozzi[3], Sara Villa[3] 162

III Poster

1 Reti trofiche ed ecologia di comunità 164

Seasonal isotopic niche structure of dominant pelagic and benthic species in Kongsfjorden, Svalbard Islands
Giulio Careddu[1*], Roberta Zitelli[1], Simona Sporta Caputi[1], Matteo Ventura[1], Davide Giannini[1], Fabiana Antonelli[1], Sergio Stefanni[2], Maria Saggiomo[2], Elena Papale[3], Maria Letizia Costantini[1], Edoardo Calizza[1] 165

Exploring phytoplankton community dynamics through eDNA metabarcoding across size-fractionated assemblages in a coastal marine ecosystem

Citizen Science in action: tracking species of (European) Union concern through the "AilantItaly" project

Federica Compagnone[1*], Marco Varricchione[1,2], Angela Stanisci[1,2], Leonardo Ancillotto[2,3], Claudia Angiolini[2,4], Domenico Sergio Antonacci[5], Emilio Badalamenti[2,6], Simonetta Bagella[2,7], Debora Barbato[2,8], Francesco Boscutti[2,9], Giuseppe Brundu[2,10], Thomas Campagnaro[2,11], Laura Celesti-Grapow[2,12], Sandra Citterio[2,13], Mirko Di Febbraro[1], Michele Finizio[1], Michele Innangi[1], Tommaso La Mantia[2,6], Vanessa Lozano[2,10], Lara Maistrello[2,14], Alessandro Mariggiò[15], Chiara Montagnani[2,13], Emiliano Mori[2,3], Michele Mugnai[16], Maria Petrillo[6], Lorenzo Pinzani[17], Stefano Raimondi[18], Giovanni Riveccio[7], Nicole Sebesta[19], Giacomo Trotta[9], Franziska Zemmer[20], Maria Laura Carranza[1,2]

[1]Department of Biosciences and Territory, EnviXLab, University of Molise, Contrada Fonte Lappone - 86090 - Pesche ((IS)), Italy
[2]National Biodiversity Future Center (NBFC), Piazza Marina 61 - 90133 - Palermo, Italy
[3]National Research Council (CNR), Institute for the Research on Terrestrial Ecosystems (IRET), Via Madonna del Piano 10 - 50019 - Sesto Fiorentino ((FI)), Italy
[4]Department of Life Sciences, University of Siena, Via Pier Andrea Mattioli 4 - 53100 - Siena, Italy
[5]Gargano Natour APS, Contrada Pozzocavo - 71013 - San Giovanni Rotondo ((FG)), Italy
[6]Department of Agricultural, Food and Forest Sciences, University of Palermo, Viale delle Scienze - 90128 - Palermo, Italy
[7]Department of Chemical, Physical, Mathematical and Natural Sciences, University of Sassari, Via Piandanna 4 - 07100 - Sassari, Italy
[8]Dipartimento di Scienze Fisiche, della Terra e dell'Ambiente, Università di Siena, Via Mattioli 4 - 53100 - Siena, Italy
[9]Department of Agricultural, Food, Environmental and Animal Sciences (DI4A), University of Udine, Via delle Scienze 206 - 33100 - Udine, Italy
[10]Department of Agricultural Sciences, University of Sassari, Viale Italia 39/A - 07100 - Sassari, Italy
[11]Department of Land, Environment, Agriculture and Forestry, Università degli Studi di Padova, Viale dell'Università 16 - 35020 - Legnaro ((PD)), Italy
[12]Department of Environmental Biology, Sapienza University, Piazzale Moro 5 - 00185 - Roma, Italy
[13]Department of Earth and Environmental Sciences, University of Milano-Bicocca, Piazza della Scienza 1 - 20126 - Milano, Italy
[14]Department of Life Sciences, University of Modena and Reggio Emilia, Via G. Amendola 2 - 42122 - Reggio Emilia, Italy
[15]Riserve Naturali Regionali Orientate del Litorale Tarantino Orientale, Via Fra N. Margarito 1 - 74024 - Manduria ((TA)), Italy
[16]Department of Biology, University of Florence, Via G. La Pira 4 - I-50121 - Firenze, Italy
[17]Department of Science, University of Roma Tre, Viale G. Marconi 446 - 00146 - Roma, Italy
[18]Direzione Nazionale Ufficio Aree Protette e Biodiversità, Legambiente Nazionale APS, Via Salaria 403 - 00199 - Roma, Italy
[19]Department of Life Sciences and Systems Biology, University of Turin, Viale Mattioli 25 - 10125 - Torino, Italy
[20]Independent scholar, Via Franz von Fenner, 23 - 39040 - Cortaccia sulla Strada del Vino ((BZ)), Italy

federica.compagnone@unimol.it

In recent years, Citizen Science (CS) has become increasingly important for monitoring biodiversity and its pressures and threats, such as invasive alien species. In the European, some of the invasive alien species with the greatest impact on biodiversity are listed under the Regulation (EU) No. 1143/2014, which requires all Member States to conduct management actions, including continuous monitoring. This monitoring is essential to identify new invasion foci (early warning) for potential eradication, as well as heavily invaded areas, where management and containment measures must be implemented. This study aims to implement a national-scale CS initiative (AilantItaly) to enhance knowledge on the ecology, distribution, and spread of the invasive species *Ailanthus altissima* (Mill.) Swingle in Italy.

Through active public engagement and collaboration among 15 research institutions and organizations, the project, launched within the framework of the TESO working group (Tavolo ESOtiche – UniMiB and UniMoRe) under the National Biodiversity Future Center (NBFC), seeks to collect large-scale occurrence data to support early detection, detailed mapping and modelling, and the development of targeted management strategies. Data are collected and shared through a dedicated project, AilantItaly, launched on March 15th, 2025, on the iNaturalist platform (https://www.inaturalist.org/projects/ailantitaly), a global biodiversity data repository. The initiative promotes active and structured monitoring in urban, natural, and semi-natural environments. By comparing *Ailanthus altissima* records on iNaturalist before and after the launch of AilantItaly, we explored and provided evidence of: (i) the effectiveness of CS in enhancing spatial and ecological knowledge of the target species at a national scale in Italy, and (ii) the identification of geographic areas with higher susceptibility to invasion, based on citizen-contributed data. Combining scientific rigour with participation, the project fosters dialogue between academia and society, showcasing how CS contributes to addressing invasive species challenges.