



# XVII OPTIMA Meeting

20-23 September 2023  
Erice, Italy



**Università  
degli Studi  
di Palermo**



**PLANTA**

**CENTRO DI RICERCA DOCUMENTAZIONE E FORMAZIONE**  
Palermo (Italia)

## Programme

**Tuesday 19 September** [Palermo, Via Archirafi 38]

10h00-18h00 – Meetings of the Scientific commissions of OPTIMA – Section of Section of Botany, Zoology and Anthropology of the Department STEBICEF.

18h15 – Bus transfer to Erice.

**Wednesday 20 September** [Erice]

9h00 – Welcoming of the participants and registration – *Instituto San Rocco*.

9h00 – Joint Meeting of the Executive Council & International Board of OPTIMA (restricted, *Instituto San Rocco*).

11h00 – **Opening Ceremony** – *Auditorium Pam Dirac*.

12h00 – **Plenary conference** – *Auditorium Pam Dirac* - K. H. C. Başer (Nicosia, Cyprus) : Essential oils: science, technology, and applications, yesterday and today.

13h00 – **Lunch** – *Palazzo Sales*.

14h30 – **Symposium 1** – *Palazzo Sales* – Mediterranean refugia: importance for plant conservation.

Chairs: F. Médail (Marseille, France), M. Fennane (Rabat, Morocco)

14h30–15h00. A. Baumel, F. Médail, G. Nieto Feliner, S. La Malfa, M. Di Guardo, M. Boudagher Kharrat, L. Ouahmane, K. Diadema, H. Sanguin, J. Viruel: Late Pleistocene expansions from a single climatic refugium and close wild–domesticated relationships in the carob tree.

15h00–15h30. M. Guerrina, D. Dagnino, L. Minuto, F. Médail, G. Casazza: Local refugia and environmental heterogeneity: a case study in a Mediterranean mountain system (Southern Alps).

15h30–16h00. T. Villaverde, M. Rincón-Barrado, M. Mairal, V. Culshaw, S. Olsson, L. Pokorný, R. Riina, I. Sanmartín: The Rand Flora pattern: from micro to macroevolutionary levels.

16h00–16h30. M. Foiss, E. Farris, G. Bacchetta: The floristic diversity of Sardinia: a starting point for the implementation of phylogeographic, ecological and conservation studies in the Mediterranean Basin.

16h30–17h00. Coffee Break

17h30–18h00. I. Rešetnik, S. Španiel, M. Temunović, S. Bogdanović, I. Ljubičić, A. Terlević, M. Mucko: Multiple Balkan glacial refugia - an overview of genetic imprints.

18h00–18h15. E. Di Gristina, E. Bajona, G. Domina, F. M. Raimondo : The Trapani mountains (NW Sicily), refuge for relict or highly localized endemic plants.

18h15–18h30. F. Bartoli, G. Zangari, M. Iocchi, F. Lucchese : Latium Flora: Distribution model of species with conservationist interest in refugia.

18h30–18h45. I. Camarda: Intérêt phylogénétique et endémismes du massif du Gennargentu (Sardaigne).

14h30 – **Symposium 2** – *Instituto San Rocco* – Taxonomy, ecology and conservation of Mediterranean fungi, lichens and bryophytes.

Chairs: M. Ros (Murcia, Spain), G. Venturella (Palermo, Italy), P. Campisi (Palermo, Italy), S. Ravera (Palermo, Italy)

14h30–15h00. A. De Agostini, M. Aleffi, A. Cogoni, S. Poponessi : Bryophytes in small circum-Sardinian islands: biogeographic patterns, ecology and comparison with other small circum-Italian islands.

15h00–15h30. J. G. Segarra-Moragues : Progress in the taxonomical and evolutionary knowledge of the aquatic liverworts *Riella*.

15h30–16h00. N. Hodgetts, C. Views: Mediterranean bryophytes: are there any effective conservation strategies?

16h00–16h30. N. G. Medina: Decoding the determinants of the abundance and distribution of Mediterranean bryophytes.

16h30–17h00. Coffee Break

17h00–17h30. A. Guttová, M. Svitok, Z. Fačková, L. Paoli, J. K., M. Slovák, S. Munzi, J. Breidy, H. Dokmak, D. Senko : In search of strictly Mediterranean lichens: contribution of collection based approach to characterization of European Mediterranean.

17h30–18h00. P. Campisi, M. Puglisi: Threatened Liverworts of Italian bryoflora: analysis of biological and ecological characters.

18h00–18h30. G. Mirabile: Biodiversity of fungi in freshwater ecosystems of Italy.

20h00. **Welcome cocktail.**

**Thursday 21 September** [Erice]

9h00 – **Symposium 3** – *Palazzo Sales* – Biosystematics in the Mediterranean area 1.

Chairs: K. Marhold (Bratislava, Slovak Republic), C. Oberprieler (Regensburg, Germany), L. Peruzzi (Pisa, Italy), P. Barea (Athens, Greece)

9h00–9h20. M. Šlenker, A. Kantor, J. Zozomová-Lihová, J. Kučera, K. Skokanová, B. Šingliarová, T. Mandáková, K. Marhold: Balkan diploids and polyploids in *Cardamine* (*Brassicaceae*).

9h20–9h40. I. Álvarez, J. Fuertes-Aguilar, S. Garcia, T. Garnatje, O. Hidalgo, G. Nieto Feliner, J. Pellicer, M. Rosato, J. A. Rosselló, R. Torices, J. Vallès, D. Vitales: The genus *Anacyclus*

(*Anthemideae*, *Asteraceae*) as a model for research on diploid hybrid lineages evolution.  
9h40–10h00. M. Tiburtini, L. Peruzzi: Morphometric tools to test species delimitation: the case of *Armeria* (*Plumbaginaceae*) in central Mediterranean area.

10h00–10h20. D. Caković, M. Boschin, E. Závěská, M. Skubic, R. El Mokni, B. Frajman: Disentangling relationships in different Mediterranean *Euphorbia* lineages (*Euphorbiaceae*) using integrative approach.

10h20–10h40. D. Harpke: Towards a resolved phylogeny for a new classification of *Crocus* (*Iridaceae*).

10h40–11h00. M. Dorfner, C. Oberprieler: From error-prone Nanopore reads to valuable insights: AFLP-based genome reduction and the SLANG pipeline for multi-locus analysis in biosystematic research.

11h00–11h30. Coffee Break

11h30–11h50. M. Guerrina, L. Valardo, A. Baumel, L. Minuto, A. Giacò, L. Peruzzi, L. Sáez, R. Carballal, P. Caputo, D. De Luca, G. Bacchetta, L. Podda, F. Conti, F. Bartolucci, G. Casazza : Exploring the phylogenetic relationships in *Santolina* (*Asteraceae*): a taxonomically complex genus endemic to the Mediterranean Basin.

11h50–12h10. D. Gutiérrez-Larruscain, P. Vargas, M. Fernández-Mazuecos, J. G. Pausas: The evolutionary history of junipers (*Juniperus* sect. *Juniperus*) based on genomic (GBS) analysis.

12h10–12h30. J. Franzoni, G. Bacchetta, F. Conti, G. Domina, S. Fior, L. Minuto, L. Peruzzi: Tackling taxonomic inflation: biosystematics studies of the *Dianthus virgineus* complex (*Caryophyllaceae*) in the Central Mediterranean

12h30–12h50. S. Casavecchia, M. Giovannotti, F. Carducci, M. A. Biscotti, M. Barucca, E. Trucchi, F. Giannelli, G. Quattrini, S. Pesaresi, L. Aquilanti: Diversity of the Italian populations of *Onopordum tauricum* (*Asteraceae*) as revealed by ddRAD sequencing and morphometric data analysis.

9h00 – **Symposium 4** – *Instituto San Rocco* – Taxonomy, ecology and conservation of Mediterranean marine and freshwater algae.

Chairs: A. M. Mannino (Palermo, Italy), C. Rodríguez-Prieto (Girona, Spain), M. Cantonati (Bologna, Italy)

9h00–9h30. A. Falace: The challenge of conservation and restoration of macroalgal forests with special attention to the Mediterranean.

9h30–10h00. C. Rodríguez-Prieto, J. Morcillo: What's new in *Acrosymphytales* (*Rhodophyta*)? The case of Mediterranean *Acrosymphyton purpuriferum*.

10h00–10h30. K. M. Manoylov, R. Stancheva, M. Cantonati: Understanding the invisible - population and community ecology of algae from Mediterranean streams on two continents.

10h30–11h00. M. Cid Rodriguez, O. Bilous, G. Dörflinger, H. Lange-Bertalot, A. Papatheodoulou, A. A. Saber, D. Spitale, M. Cantonati: New taxonomic and ecological data on new-to-science, rare and insufficiently known *Nitzschia* species (*Bacillariophyta*) from the Island of Cyprus.

11h00–11h30. Coffee Break

11h30–12h00. M. Cantonati: Ecology, conservation, and taxonomy of diatoms in Mediterranean streams and springs in the face of climate change.

12h00–12h30. F. Rindi: Biodiversity associated with Mediterranean fucal forests and mechanisms regulating it: an assessment of the current knowledge.

12h30–13h00. M. Morabito: DNA barcodes as permanent labelling in floristic and systematic studies of macroalgae.

13h15 – **Lunch** – *Palazzo Sales*.

14h30 – **Symposium 5** – *Palazzo Sales* – Biosystematics in the Mediterranean area 2.

Chairs: K. Marhold (Bratislava, Slovak Republic), C. Oberprieler (Regensburg, Germany), L. Peruzzi (Pisa, Italy), P. Borek (Athens, Greece)

14h30–14h50. M. Escudero, A. Valdés-Florido, E. Maguilla, V. Simón-Porcar, J. Arroyo: Patterns and mechanisms of plant diversification driven by chromosome shifts in Mediterranean lineages.

14h50–15h10. K. Koutroumpa, E. Conti, N. Kilian: Taxonomic and evolutionary studies on Mediterranean plant groups in Greece: the examples of *Centaurea* (*Asteraceae*) and *Limonium* (*Plumbaginaceae*).

15h10–15h30. I. Rúrik, A. Melichárková, J. Kučera, E. Gbúrová Štubňová, J. Kochjarová, O. Paun, P. Vdačný, M. Slovák: Drivers of diversification, speciation, and trait evolution in the European Alpine System endemic genus *Soldanella* (*Primulaceae*).

15h30–15h50. S. Tomasello, E. Manzo: Phylogenomics and the biogeography of the Old-World *Xanthium strumarium* (*Asteraceae*).

16h00–16h30. Coffee Break

16h30–16h50. A. Giacò, L. Peruzzi: Lumping and splitting: how an integrative approach can guide taxonomists in species delimitation.

16h50–17h10. A. Maccioni, S. Macis, M. Gibernau, E. Farris: Intra- and inter-population phytochemical variability of *Teucrium marum* (*Lamiaceae*) in Sardinia: relevant for chemotaxonomy or just determined by ecological factors?

17h10–17h30. C. Chatellier, C. Tollon, B. Khadari, J. Molina: Towards defining the genetic statute of *Limonium cuspidatum* (*Plumbaginaceae*), a protected taxon in South French, using microsatellite markers.

14h30 – **Symposium 6** – *Instituto San Rocco* – Ecosystems restoration and species conservation. Chairs: J. M. Iriondo (Madrid, Spain), P. Marino (Palermo, Italy)

14h30–15h00. P. Fraga i Arguimbau : More than 20 years of flora conservation in Menorca: landscape changes and management.

15h00–15h30. A. García-Fernández, S. Sacristán-Bajo, E. Torres, C. Lara-Romero, M. Luisa Rubio Teso, J. M. Iriondo: Facilitated adaptation as a conservation tool for plant adaptation to climate change

15h30–16h00. M. L. Rubio Teso, G. Asens, A. García-Fernández, C. Lara-Romero, A. Molina, C. del Tío Navas, E. Torres, J. M. Iriondo : Design and development of genetic reserves for plant conservation.

16h00–16h30. Coffee Break

16h30–17h00. H. Leschner : Celebrating a centennial - 100 years of struggle for the preservation and rehabilitation of plants in Israel.

17h00–17h15. V. Gianguzzi, G. Barone, E. Di Gristina, F. Sottile, G. Domina: Use of micropropagation techniques for the conservation of endangered species with reproductive problems.

17h15–17h30. A. Prigioniero, M. Tartaglia, D. Zuzolo, M. A. Ranauda, P. Scarano, C. Guarino : Populations genomic analysis of *Primula palinuri* (*Primulaceae*), a narrow endemic Mediterranean plant species on the edge of precipice.

17h30 – **Roundtable** – *Palazzo Sales* – World Flora Online, Euro+Med, APD, inaturalist, efloraMaghreb, how to get ahead, how to structure the synergies with databases.

Chair: C. Chatelain (Genève, Switzerland)

### **Friday 22 September** [Erice]

9h00 – **Symposium 7** – *Instituto San Rocco* – Herbaria and the understanding of Mediterranean plant diversity: past, present and future.

Chairs: M. Carine (London, U.K.), G. Domina (Palermo, Italy)

9h00–9h30. G. Cristofolini: Origin and Evolution of Herbaria in the 16th Century.

9h30–10h00. A. Stefanaki, T. van Andel: How to approach the unknown? Elucidating the origins of the 16th-century En Tibi and Rauwolf book herbaria.

10h00–10h30. P. Muñoz-Rodríguez: Taxonomy in the spotlight: integrating herbarium-based research and genomics to monograph the world's plants.

10h30–11h00. Coffee Break

11h00–11h30. C. Chatelain, F. Mombrial: Herbaria for the next generations, the exemple of Litardière herbarium and herbonautes in M.

11h30–12h00. F. Willems, J. F. Scheepens, O. Bossdorf: Forest wildflowers bloom earlier as Europe warms: lessons from herbaria and spatial modelling.

12h00–12h30. F. Roma-Marzio, D. Dolci, G. Astuti, N. Magrini, F. Pierotti, S. Maccioni, R. Vangelisti, L. Amadei, L. Peruzzi: Digitization of historical herbaria. A case study from the Herbarium of Michele Guadagno at Pisa (PI).

12h30–13h00. W. Addink: Herbarium specimens in the web of scientific data in 2030, a forward look.

8h30 – **Symposium 8** – *Palazzo Sales* – Useful plants in the Mediterranean Countries.

Chairs: K. H. C. Başer (Nicosia, Cyprus), G. A. Malfa (Catania, Italy), E. Kožuharova (Sofia, Bulgaria)

8h30–9h00. N. Smyth, J. Stout, K. Chandler, Ú. Fitz Patrick : Building pollinator resources in urban areas - pollinator friendly plants for different situations.

9h00–9h15. P. Zhelev: Diversity and importance of arboreal plants.

9h15–9h30. F. Palla: Film Plants of the *Lamiaceae* family as source of bioactive derivatives.

9h30–9h45. A. Dafni, B. Boeck : Medicinal Plants of the Bible - Past, Present, and Future.

9h45–10h00. G. Benítez, L. Aceituno-Mata, M. Pardo-de-Santayana : A review of the dye plants in Spain.

10h00–10h15. I. Aneva, Wild plants used as spices.

10h15–10h30. A. R. M. S. Al Tawaha: Edible Treasures: Discovering the Riches of Wild Food Plants.

10h30–11h00. Coffee Break

11h00 – **Symposium 9** – *Palazzo Sales* – Health Benefits of Wild Mediterranean Plants.

Chairs: K. H. C. Başer (Nicosia, Cyprus), R. Acquaviva (Catania, Italy), V. Spadaro (Palermo, Italy)

11h00–11h20. M. Koşar, K. H. C. Başer: Saffron (*Crocus sativus*, *Iridaceae*) in ocular diseases.

11h20–11h40. P. Malaspina, F. Polito, L. Cornara, V. De Feo, V. Spadaro, N. Miceli, F. M. Raimondo: Pharmacognostic characterization of *Diplotaxis tenuifolia* (*Brassicaceae*) from Campania and Sicily (Southern Italy).

11h40–12h00. D. Orčić, S. Berežni, N. Mimica-Dukić: *Anthriscus sylvestris* (*Apiaceae*): Phytochemical and pharmacological approach.

12h00–12h15. G. A. Malfa, S. Bianchi, C. Di Giacomo, B. Tomasello, P. Marino, R. Acquaviva: Phytochemical constituents, biological activities, and health-promoting effects of Sicilian wild artichokes.

12h15–12h30. E. Bedir, M. Küçüksolak, S. Yılmaz, G. Üner, P. Ballar Kırmızıbayrak: Utilization of endophytic fungi for biotransformation to obtain bioactive compounds.

12h30–12h45. L. Giamperi, P. Marino, A. E. A. Bucchini: Enhancement of ancient fruit varieties registered in the regional repertoires through the study of their health properties.

12h45–13h00. A. E. A. Bucchini, F. Palla, L. Giamperi : Antioxidant and anti-inflammatory activity of ancient apple varieties from central Italy.

13h00 – **Lunch** – *Palazzo Sales*.

14h30 – **Poster Session**– *Instituto San Rocco*.

16h30–16h30. Coffee Break

16h30 – **Roundtable** – *Auditorium Pam Dirac* – Plant diversity and restoration of the historic garden «Giardino del Balio» (Erice) and presentation of the project for its restoration [financed by the Italian Ministry of Culture with funds from the PNRR].

Chair: J. Wade (Cernobbio, Italy)

20h00 – **Congress Dinner**

**Saturday 23 September** [Erice]

9h00 – **Symposium 10** – *Instituto San Rocco* – Crop Wild Relatives in the Mediterranean countries (Symposium dedicated to the memory of Professor V. H. Heywood).

Chairs: B. Valdès (Sevilla, Spain), A. Giovino (Palermo, Italy), M. Rejdali (Temara, Morocco)

9h00–9h30. Introduction. To the memory of Professor Vernon Hilton Heywood.

9h30–10h00. B. Valdés: Recent introduction into cultivation of wild plants in the Iberian Peninsula.

10h00–10h30. A. Amri, S. K. Agrawal, F. Bassi, M. Sanchez-Garcia, M. El-Bouhssini, M. Yazbek, H. Aberkane: Conservation and use of wild relatives of cereals and food legumes.

10h30–11h00. Coffee Break

11h00–11h30. E. Kozuharova, I. Aneva: Introduction into cultivation of the Balkan endemic *Sideritis scardica* (*Lamiaceae*).

11h30–12h00. O. Barazani: Applying genomic tools in the study of Crop Wild Relatives in the south Levant.

12h00–12h30. F. Bonanno, A. Giovino, A. Marchese, S. Aprile, F. M. Raimondo: Taxonomic and genetic diversity of the Sicilian relatives of azarole (*Crataegus azarolus*, *Rosaceae*).

12h30–13h00. P. Marino, V. Spadaro & G. Zizzo: Taxonomy, ecology and distribution of the Sicilian relatives of artichoke (*Cynara scolymus*, *Asteraceae*).

9h00 – **Symposium 11** – *Palazzo Sales* – Invasive plants and their impact in Mediterranean countries.

Chairs: O. Vasic (Beograd, Serbia), F.M. Raimondo (Palermo, Italy)

9h00–9h30. C. Gómez-Bellver, N. Ibáñez, N. Nualart, J. López-Pujol: Cataloguing the alien flora of north-western Mediterranean basin: recent efforts and future prospects.

9h30–10h00. V. Lozano, G. Brundu: Invasive alien plants of European Union concern in Italy: distribution and threats.

10h00–10h30. M. Rat: Changing perceptions of invasive plants in Serbia.

10h30–11h00. Coffee Break

11h00–11h30. A. M. Mannino: An overview on alien macrophytes in Sicilian Marine Protected Areas (Southern Mediterranean Sea).

11h30–12h00 C. Gómez-Bellver, R. Melero, Jordi López-Pujol, N. Ibáñez, N. Nualart, R. Rodríguez-González, A. Bosch-Guiu, D. Vitales, M. Guirado, P. Feliu, G. Carrión, F. Caralt, J. M. Pagès, S. Garcia: LIFE medCLIFFS: towards an integrative management of invasive plant species in the Costa Brava (North-east Iberian Peninsula).

12h00–12h30. P. Fraga i Arguimbau: Invasive alien plants in Menorca (Balearic Islands, Spain): characterization, management experiences and proposals for a sustainable control.

12h30–12h45. M. L. Gargano, R. Pardi, V. Malacrinò: Invasive trend of *Parkinsonia aculeata* (*Fabaceae*) in Mediterranean Italy.

12h45–13h00. N. Lachashvili, K. Kereselidze, G. Nakhutsrishvili: *Koelreuteria paniculata* (*Sapindaceae*), casual alien tree in the South Caucasus and in the Mediterranean region.



13h00 – **Lunch** – *Palazzo Sales*.

15h00 – *Palazzo Sales* – Special Event – UNESCO site and geopark. Aspromonte National Park (Calabria, S-Italy). Where stones meet ancient forest. The case of Valle Infernale, the ancient beech forest.

16h30–16h30. Coffee Break

16h30 – *Palazzo Sales* – **Closing Ceremony and General meeting of OPTIMA.**

18h15 – Bus transfer to Palermo.

20h00 – Farewell Cocktail.

***Sunday 24 September*** [from Erice]

8h00 – **Post-Meeting excursion** [Natural Reserve Isole dello Stagnone di Marsala: Mithia and Isola Grande].

17h00 – Bus transfer to Palermo.



TAVOLA ROTONDA “IL RESTAURO DEL GIARDINO DEL BALIO DI ERICE”  
ROUND TABLE "THE RESTORATION OF THE GARDEN OF THE BALIO OF  
ERICE"

Erice, 22 settembre 2023

Auditorium San Domenico: Sala DIRAC –ore 16,30-19,00

*(evento in traduzione simultanea, event in simultaneous translation)*

Saluti istituzionali / Institutional greetings

Daniela Toscano Pecorella, Sindaco di Erice

Judith Wade, Presidente Grandi Giardini Italiani (Cernobbio)

Francesco Scarpinato, Assessore Regionale dei Beni Culturali, Ambientali e dell'Identità Siciliana

Introduzione / Introduction

Francesco Maria Raimondo, Presidente di OPTIMA (PLANTA, Palermo)

Chair: Judith Wade, Grandi Giardini Italiani (Cernobbio)

Relazioni / Reports (max 10 minuti per relatore / up to 10 minutes per speaker)

-Benito Valdès, Università di Siviglia (Spagna): Establishment of the Natural Park of “El Alamillo” in the Island of La Cartuja, Sevilla.

-Mohamed Rejdali, Istitute Agronomique et Veterinaire, Rabat (Marocco): The restoration of the historic

Acclimatization Garden of Rabat.

-Donato Chiatante, Università dell’Insubria (Varese): Il restauro dei giardini nell’area insubrica.

-Claudio Littardi, Centro Dies Palmarum (Sanremo): Il restauro del giardino di Villa Grock nella Riviera di ponente (Imperia).

-Pietro Pavone, Università di Catania: L’esperienza di restauro del Giardino Bellini di Catania.

-Ignazio Camarda, Università di Sassari: I grandi alberi nel restauro dei Giardini storici.

-Franco Palla, Università di Palermo: Trattamento delle carie negli alberi storici.

-Christiane Garnerò Morena, (Mentone, Francia): Progettare il giardino nel contesto mediterraneo

-Francesco Maria Raimondo, PLANTA (Palermo): Il progetto di restauro del Giardino del Balio di Erice.

-Franco Pedrotti, Università di Camerino: La sottovalutazione del progetto di restauro del Parco dendrologico di Villa Whitaker a Malfitano (Palermo).

Discussione / Discussion

Interventi programmati / Interventions

Salvatore Denaro, Dirigente Ufficio Cultura, Eventi e Centro storico del Comune di Erice

Lina Bellanca, Componente del Gruppo di Progettazione Giardino del Balio

Mimma Fontana, Soprintendente dei Beni culturali e Ambientali di Trapani

Conclusioni / Conclusions: Gian Vito Mauro, Vice Sindaco di Erice



Assemblea Regionale  
Siciliana



Comune di Erice



Regione Siciliana  
Assessorato  
Turismo, Sport e Spettacolo



Regione Siciliana  
Assessorato  
dell'Agricoltura dello  
Sviluppo rurale e della  
Pesca mediterranea



Ente Parco Nazionale  
dell'Aspromonte



Istituto Zooprofilattico Speri-  
mentale della Sicilia



Az. Agricola Bona Furtuna



DUMAS s.r.l.



Presidenza



Comune di Trapani



Società Botanica Italiana  
Onlus



Foundation Herbarium  
Greuter



Centro di Cultura Scienti-  
fica "Ettore Majorana"



Istituto Alberghiero  
I.P.S.E.O.A.  
"Ignazio e Vincenzo Florio"



Fondazione  
Giuseppe Whitaker



SEI-Saline Ettore e Infersa



Isola Longa



Alagna Vini



Società Acqua Geraci



Azienda Fiasconaro



International Foundation pro  
Herbario Mediterraneo



Accademia Nazionale di  
Scienze Lettere ed Arti



Istituto Sardo di Scienze  
Lettere e Arti