## 4th International Conference on Community Ecology

20-22 September 2023
National Institute of Oceanography and Applied Geophysics - OGS / Trieste, Italy

Programme\*

	Wednesday / 20 September		
	Aula Magna Miramare	Room A Miramare	
3:00-14:00 4:00-14:30	Registration Opening speech		
	Plenary talk / Carlos Pérez Carmona (Estonia): Mapping and exploring trait spaces across the tree of life		
4:30-15:15	(Chair: G. Bacaro)  Pattern of species richness and diversity in terrestrial and freshwater	From individuals to macroecology	Young Scientists Open Session
	systems (Chair: E. Feoli)  Enrico Feoli (Italy): Matrices of co-occurrence and their role in the study of	(Chair: E. Tordoni)  Marie-Sophie Rohwäder (Germany): Foraging personalities modify effects of	(Chair: G. Puglielli)  Elisa Padulosi (University of Bologna)
5:15-15:30	ecological communities: one example with red and white spruce forests of the Friulian Mountains.  Duccio Rocchini (Italy): The ecological nitty gritty of the spectral species concept.	habitat fragmentation on biodiversity	
5:30-15:45	Duccio Rocchini (Italy): The ecological nitty gritty of the spectral species concept	Eleonora Beccari (Estonia): Environment drives the position of mammalian species in the global spectrum of life histories	Federica Fonda (University of Trieste)
15:45-16:00	Yaşar Gültekin (Türkiye): Reconfiguring Mountainous Landscapes: Smart Countryside Practises in Bilecik Province	Elisa Marchetto (Italy): Portrayal of spatiotemporal bias and uncertainty in the sPlotOpen database	Davide Scridel (University of Trieste)
16:00-16:30	Coffee break (Forefront of Aula Magna Miramare)  Pattern of species richness and diversity in terrestrial and freshwater	From individuals to macroecology	Young Scientists Open Session
10:20 40:45	Systems (Chair: E. Feoli)  Valentina Olmo (Italy): Disentangling vegetation cover and structure influence on	(Chair: E. Tordoni)  Elisa Thouverai (Italy): Mapping diversity: how do environmental heterogeneity	(Chair: G. Puglielli)  Marco Vuerich (University of Udine)
16:30-16:45	spectral diversity: insights from a study in North-Eastern Italian forests  Mirjana Šipek (Slovenia): Alien and ancient forest indicator plant species in	patterns change in space and time?  Angelo Perilli (Italy): Ocean data analysis to unveil sea turtle behavioural traits	Daniele Da Re (University of Trento)
16:45-17:00	temperate lowland forests respond differently to fragmentation  Nicodemo Passalacqua (Italy): Surveying pasture communities in diachronic		
17:00-17:15 17:30-20:00	analyses by 3D Models  Welcome reception with Jam session (ICTP terrace of the Leonardo Building)		
	Thursday / 21 September		
	Aula Magna Miramare	Room A Miramare	Room B Miramare
8:30-9:15	Registration		
09:15-10:00	Plenary talk / Aditee Mitra (UK): Plankton community structure and functioning under climate change – the mixoplankton dimension (Chair: F. Petruzzellis)		
10:00-10:10	Group photo		
10:10-10:30	Coffee break (Forefront of Aula Magna Miramare)  Pattern of species richness and diversity in terrestrial and freshwater	Biodiversity and ecosystem functioning in marine systems	Conservation biology and remediation ecology
	systems (Chair: F. Petruzzellis)  Alessandro Chiarucci (Italy): Biogeography and conservation meaning of plant species richness in small Mediterranean islands	(Chair: P. Lazzari)  Luca Polimene (Italy): A model-based, generalised eutrophication index for	(Chair: G. Lövei)  Marco Bertoli (Italy): Ecological preferences of the south european nase lasca (Protochondrostoma genei, Bonaparte 1939) in the Chiarò di Cialla Creek
10:30-10:45		European Seas	(Northeast Italy): new insights and conservation perspectives
10:45-11:00	Damiano Baldan (Italy): Effects of longitudinal fragmentation on riverine beta diversity: a cross-catchment comparison  Isabel Cantera (Italy): Succession in soil communities after glacier retreat:	Ivano Vascotto (Italy): Comparing different estimation methods for phytoplankton traits: biomass, size, morphology, and their distribution  Luis Amado Avala Pérez (Mexico): Environmental behavior and fish abundance in	Ludovico Chieffallo (Italy): A novel approach for surveying flowers as a proxy for bee pollinators using drone images  Emanuele Fanfarillo (Italy): Effectiveness of different metrics of Floristic Quality
11:00-11:15	Isabel Cantera (Italy): Succession in soil communities after glacier retreat: replacement versus taxa addition	Luis Amado Ayala Pérez (Mexico): Environmental behavior and fish abundance in some coastal systems of the southern Gulf of Mexico: Temporal integration analysis	Emanuele Fanfarillo (Italy): Effectiveness of different metrics of Floristic Quality Assessment: the simpler, the better?
11:15-11:30	Simone Giachello (Italy): Regional features shape the ecological succession of soil protist communities in glacier forelands around the world	Krystian Obolewski (Poland): Hydrological connectivity a one of key factors in ecological integrity	Maija Štokmane (Latvia): Spatial distribution modelling of insects and spiders within mire habitats in Latvia by using the remote sensing and machine learning techniques: a brand new approach
11:30-11:45	Agnese Marcelli (Italy): A design-based view of species richness estimation	Ilona Złoch (Poland): Biodiversity of marine endoliths	Emilia Pafumi (Italy): In&Out: comparing plant diversity of coastal dunes inside and outside the protected areas of Northern and Southern Tuscany
	Francesco Petruzzellis (Italy): Coordination between water-related traits and the leaf economic spectrum		Mohcen Menaa (Algeria): Bird assemblage response to Atlas cedar afforestation of Mount M'Cid, Northeastern Algeria: a synecological approach for conservation
11:45-12:00	Jakub Buda (Poland): Are the bacterial and eukaryotic assemblages related to		management
12:00-12:15 12:30-14:00	environmental radioactivity on glacier surfaces?  Lunch (ICTP terrace of the Leonardo Building)		
	Plenary talk / Catherine Longo (UK): From ocean to plate: community level climate change impacts on		
14:00-14:45	sustainable seafood (Chair: S. Libralato)  Pattern of species richness and diversity in terrestrial and freshwater	Pattern of species richness and diversity in marine systems	Ecosystem services
	systems (Chair: D. Rocchini)  Giacomo Puglielli (Spain): IT-V net: the ITalian Intraspecific Trait Variability	(Chair: P. Lazzari)  Eva Álvarez (Italy): A diversity-inspired version of the Biogeochemical Flux Model	(Chair: J. Grilli)  Davide Agnetta (Italy): Bio-economic indicators evidence fishing effort reduction and alimate change effects from a dynamic food web model in a central
14:45-15:00	network  Pua Bar (Israel): Spatial beterogeneity effect on meta-community stability of	Enrico Cecanolli (Italy): Accessing the contribution of the section of the sectio	and climate change effects from a dynamic food web model in a central Mediterranean fishing area  Heidi Simion (Italy): An ecosystem service-based approach to assess
15:00-15:15	Pua Bar (Israel): Spatial heterogeneity effect on meta-community stability of annual plants from an Eastern-Mediterranean coastal dune ecosystem	Enrico Cecapolli (Italy): Assessing the contribution of three key habitats to the overall Mediterranean coastal fish diversity: the case study of Calabria  Bernardo Patti (Italy): Biodiversity temporal patterns in the larval fish community of	Heidi Simion (Italy): An ecosystem service-based approach to assess multifunctionality in the Alpine region
15:15-15:30		Bernardo Patti (Italy): Biodiversity temporal patterns in the larval fish community of the Strait of Sicily (Central Mediterranean) and the role of local hydrodynamic processes	
15:45-16:15 16:15-17:15	Coffee break (Forefront of Aula Magna Miramare)  Poster session* (Forefront of Aula Magna Miramare)		
16:15-17:15 17:15-18:00	Poster session* (Forefront of Aula Magna Miramare)  Plenary talk / Gábor Lövei (Denmark / Hungary): In praise of the rare species (Chair: F. Jordán)		
.5.00			
	Friday / 22 September		
	Aula Magna Miramare	Room A Miramare	Room B Miramare
08:30-09:15	Aula Magna Miramare Registration	Room A Miramare	Room B Miramare
08:30-09:15 09:15-10:00	•	Room A Miramare	Room B Miramare
09:15-10:00	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)		Room B Miramare
09:15-10:00	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)	Effects of global changes (Chair: E. Gissi)
09:15-10:00 10:00-10:30	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs	Biodiversity and ecosystem functioning in terrestrial ecosystems	Effects of global changes (Chair: E. Gissi)
09:15-10:00 10:00-10:30 10:30-10:45	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub
09:15-10:00 10:00-10:30 10:30-10:45 10:45-11:00	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global
09:15-10:00 10:00-10:30 10:30-10:45 10:45-11:00 11:00-11:15	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming
09:15-10:00 10:00-10:30 10:30-10:45 10:45-11:00	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early
09:15-10:00 10:00-10:30 10:30-10:45 10:45-11:00 11:00-11:15 11:15-11:30 11:30-11:45	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking spec functional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.
09:15-10:00 10:00-10:30 10:30-10:45 10:45-11:00 11:00-11:15 11:15-11:30	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien
09:15-10:00 10:00-10:30 10:30-10:45 10:45-11:00 11:00-11:15 11:15-11:30 11:30-11:45 11:45-12:00	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation
09:15-10:00 10:00-10:30 10:30-10:45 10:45-11:00 11:00-11:15 11:15-11:30 11:30-11:45	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa):	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation
09:15-10:00 10:00-10:30 10:30-10:45 10:45-11:00 11:00-11:15 11:15-11:30 11:30-11:45 11:45-12:00 12:00-12:15 12:30-14:00	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking spec functional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities
09:15-10:00 10:00-10:30 10:30-10:45 10:45-11:00 11:00-11:15 11:15-11:30 11:30-11:45 11:45-12:00 12:00-12:15 12:30-14:00	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs (Chair: F. Jordán)	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities
09:15-10:00 10:00-10:30 10:30-10:45 10:45-11:00 11:00-11:15 11:15-11:30 11:30-11:45 11:45-12:00	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs (Chair: F. Jordán):  Beñat Iglesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking spec functional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00  11:00-11:15  11:15-11:30  11:30-11:45  11:45-12:00  12:00-12:15  12:30-14:00  14:00-14:45	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs (Chair: F. Jordán)  Beñat Iglesias (Spain): Influence of seasonal variability on the trophic structure of	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils
09:15-10:00 10:00-10:30 10:30-10:45 10:45-11:00 11:00-11:15 11:15-11:30 11:30-11:45 11:45-12:00 12:00-12:15 12:30-14:00 14:00-14:45 14:45-15:00 15:00-15:15	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs (Chair: F. Jordán)  Beñat Iglesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grassla vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30 10:30-10:45 10:45-11:00 11:00-11:15 11:15-11:30 11:30-11:45 11:45-12:00 12:00-12:15 12:30-14:00 14:00-14:45	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs (Chair: F. Jordán)  Beñat Iglesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grasslar vegetation after 30 years
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00 11:00-11:15  11:15-11:30 11:30-11:45  11:45-12:00  12:00-12:15 12:30-14:00  14:00-14:45  15:00-15:15 15:15-15:30 15:30-15:45 15:45-16:15	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs (Chair: F. Jordán)  Beñat Iglesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grasslar vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00  11:00-11:15  11:15-11:30  11:30-11:45  11:45-12:00  12:00-12:15  12:30-14:00  14:00-14:45  15:00-15:15  15:15-15:30  15:30-15:45  15:45-16:15	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissl)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Jordán)  Beñat Iglesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grassla vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00 11:00-11:15  11:15-11:30 11:30-11:45  11:45-12:00  12:00-12:15 12:30-14:00  14:00-14:45  15:00-15:15 15:15-15:30 15:30-15:45 15:45-16:15	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa):  Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs  (Chair: F. Jordán)  Beñat (Jesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status  Coffee break (Forefront of Aula Magna Miramare)  Conclusive remarks, Awards	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LIDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking spec functional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grassla vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00  11:00-11:15  11:15-11:30  11:30-11:45  11:45-12:00  12:00-12:15  12:30-14:00  14:00-14:45  15:00-15:15  15:15-15:30  15:30-15:45  15:45-16:15	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs  (Chair: F. Jordán)  Beñat (glesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status  Coffee break (Forefront of Aula Magna Miramare)  Conclusive remarks, Awards  Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Mira Blodiversity and ecosystem functioning  1. Francesco Dattilo (Italy): Functional diversity shapes plankton trophic webs in a changing sea	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grasslat vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00 11:00-11:15  11:15-11:30 11:30-11:45  11:45-12:00  12:00-12:15 12:30-14:00  14:00-14:45  15:00-15:15 15:15-15:30 15:30-15:45 15:45-16:15	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs (Chair: F. Jordán)  Beñat Iglesias (Spain): Influence of seasonal variability on the trophic structure of pelajic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status  Coffee break (Forefront of Aula Magna Miramare)  Conclusive remarks, Awards	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LIDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grasslat vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00 11:00-11:15 11:15-11:30 11:30-11:45  11:45-12:00 12:00-12:15 12:30-14:00  14:00-14:45  15:00-15:15 15:15-15:30 15:30-15:45 15:45-16:15	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs (Chair: F. Jordán)  Beñat [glesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status  Conclusive remarks, Awards  Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Mira Biodiversity and ecosystem functioning  1. Francesco Dattilo (Italy): Ecosystem approach to spatial multispecies management of small scale fishery and the community effects on the Adriatic Sea resources  3. Eugenia López-López (Mexico): Fish assemblage of a tropical coastal lagoon in the Guif of Mexico facing anthropic and climatic stressors: Life history changes	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thallus structure as suitable niche for diversity  Hana Soualah Ailia (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking spec functional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grassla vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00  11:00-11:15  11:15-11:30  11:30-11:45  11:45-12:00  12:00-12:15  12:30-14:00  14:00-14:45  15:00-15:15  15:15-15:30  15:30-15:45  15:45-16:15	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivors of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs  (Chair: F. Jordán)  Beñat Iglesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status  *Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Mira Blodiversity and ecosystem functioning  1. Francesco Dattilio (Italy): Functional diversity shapes plankton trophic webs in a changing sea  2. Simone Libralato (Italy): Ecosystem approach to spatial multispecies management of small scale fishery and the community effects on the Adriatic Sea ressources  3. Eugenia López-López (Mexico): Fish assemblage of a tropical coastal lagoon in the Guil of Mexico facing anthropic and climatic stre	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LIDAR remote sensing data: unrawelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thalius structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.  12. Melissa R. Gerwin (Australia): Exploring the abiotic context-dependency of plant-plant interactions using climate change experiments  13. Thomas Mieczan (Poland): The effect of experimentally simulated climate warming on the microbiome of camivorous plants — a microcosm experiment  Resilience, stability and health of ecological communities	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grasslat vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00  11:00-11:15  11:15-11:30  11:30-11:45  11:45-12:00  12:00-12:15  12:30-14:00  14:00-14:45  15:00-15:15  15:15-15:30  15:30-15:45  15:45-16:15	Registration  Plenary talk / Lynne Shamon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Buliding)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grillii)  Ecological networks and food webs (Chair: F. Jordán)  Beñat Iglesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status  *Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Mira Biodiversity and ecosystem functioning  1. Francesco Dattilo (Italy): Ecosystem approach to spatial multispecies management of small scale fishery and the community effects on the Adriatic Sea resources  3. Eugenia López-López (Mexico): Fish assemblage of a tropical coastal lagoon in the Gulf of Mexico facing anthropic and climatic stressors: Life history changes along last half century	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LIDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thalius structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.  12. Melissa R. Genvin (Australia): Exploring the abiotic context-dependency of plant-plant interactions using climate change experiments  13. Thomas Mieczan (Poland): The effect of experimentally simulated climate warming on the microbiome of carnivorous plants — a microcosm experiment  Resilience, stability and health of ecological communities  14. Gemma Chiaffarelli (Italy): Influences of Landscape Diversification on Vegetational Communities Quality: Multi-scale Analitycal Insights on Highly Simplified Agricultural Landscapes	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking spec functional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grassla vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00  11:00-11:15  11:15-11:30  11:30-11:45  11:45-12:00  12:00-12:15  12:30-14:00  14:00-14:45  15:00-15:15  15:15-15:30  15:30-15:45  15:45-16:15	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivors of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs  (Chair: F. Jordán)  Beñat Iglesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status  *Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Mira Blodiversity and ecosystem functioning  1. Francesco Dattilio (Italy): Functional diversity shapes plankton trophic webs in a changing sea  2. Simone Libralato (Italy): Ecosystem approach to spatial multispecies management of small scale fishery and the community effects on the Adriatic Sea ressources  3. Eugenia López-López (Mexico): Fish assemblage of a tropical coastal lagoon in the Guil of Mexico facing anthropic and climatic stre	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thalius structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.  12. Melissa R. Gerwin (Australia): Exploring the abiotic context-dependency of plant-plant interactions using climate change experiments  13. Thomas Micczan (Poland): The effect of experimentally simulated climate warming on the microbiome of carnivorous plants – a microcosm experiment  Resilience, stability and health of ecological communities  14. Gemma Chiaffarelli (Italy): Influences of Landscape Diversification on Highly	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking spectunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grassla vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00  11:00-11:15  11:15-11:30  11:30-11:45  11:45-12:00  12:00-12:15  12:30-14:00  14:00-14:45  15:00-15:15  15:15-15:30  15:30-15:45  15:45-16:15	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and Viral communities in the Southern Ocean (Chair: J. Grilli)  Benat (Jessias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status  Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Mira Biodiversity and ecosystem functioning  1. Francesco Dattilo (Italy): Functional diversity shapes plankton trophic webs in a changing sea.  2. Simone Libralato (Italy): Ecosystem approach to spatial multispecies management of small scale fishery and the community effects on the Adriatic Sea resources  3. Eugeria López-López (Mexico): Fish assemblage of a tropical coastal lagoon in the Gulf of Mexico facing antitropic and climatic stressors: Life history changes along la	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LIDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thalius structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.  12. Melissa R. Genvin (Australia): Exploring the abiotic context-dependency of plant-plant interactions using climate change experiments  13. Thomas Mieczan (Poland): The effect of experimentally simulated climate warming on the microbiome of carnivorous plants — a microcosm experiment  Resilience, stability and health of ecological communities  14. Gemma Chiaffarelli (Italy): Influences of Landscape Diversification on Vegetational Communities Quality: Multi-scale Analitycal Insights on Highly Simplified Agricultural Landscapes	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking spectunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grassla vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00  11:00-11:15  11:15-11:30  11:30-11:45  11:45-12:00  12:00-12:15  12:30-14:00  14:00-14:45  15:00-15:15  15:15-15:30  15:30-15:45  15:45-16:15	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological notworks and food webs (Chair: F. Jordán)  Andras Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivors of bactorial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs  (Chair: F. Jordán)  Beñat [glesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status  *Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Mira Biodiversity and ecosystem functioning  1. Francesco Dattilo (Italy): Functional diversity shapes plankton trophic webs in a changing sea  2. Simone Libratao (Italy): Ecosystem approach to spatial multispecies management of small scale fishery and the community effects on the Adriatic Sea resources  3. Eugenia López-López (Mexico): Fish assemblage of a tropical	Biodiversity and ecosystem functioning in torrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rashead Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thalius structure as suitable niche for diversity  Hana Souslah Allia (Algeria): Butterfiles species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.  12. Melissa R. Gerwin (Australia): Exploring the abiotic context-dependency of plant-plant interactions using climate change experiments  13. Thomas Mieczan (Poland): The effect of experimentally simulated climate warming on the microbiome of carnivorous plants – a microcosm experiment  Resilience, stability and health of ecological communities  14. German Chiaffarelli (Italy): Influences of Landscape Diversification on Highly Simplified Agricultural Landscapes  Patterns of species richness and diversity  15. Flora Vajna (Hungary): Grassland restoration has contrasting effects on plants, spiders and pollinators	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking spec functional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grassla vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00 11:00-11:15  11:15-11:30 11:30-11:45  11:45-12:00  12:00-12:15 12:30-14:00  14:00-14:45  15:00-15:15 15:15-15:30 15:30-15:45 15:45-16:15	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy)  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and Viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs  (Chair: F. Jordán)  Benat (Jessias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  "Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Mira Biodiversity and ecosystem functioning  1. Francesco Dattilio (Italy): Functional diversity shapes plankton trophic webs in a changing sea.  2. Simone Libralato (Italy): Ecosystem approach to spatial multispecies management of small scale fishery and the community effects on the Adriatic Sea resources  3. Eugeria López-López (Mexico): Fish assemblage of a tropical coastal lagoon in the Gulf of Mexico Jacing anthropic and climatic stressors: Life history changes along last hair century  4. Monika M. Szymańska - Walklewicz (Poland): Effect of flood	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LIDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of theilus structure as suitable niche for diversity  Hana Soualah Aliia (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia)  Radalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.  Effects of global changes  12. Melissa R. Gerviin (Australia): Exploring the abiotic context-dependency of plant-plant interactions using climate change experiments  13. Thomas Mieczan (Poland): The effect of experimentally simulated climate warming on the microbiome of carnivorous plants – a microcosm experiment  Resilience, stability and health of ecological communities  14. German Chiaffarelli (Italy): Influences of Landscape Diversification on Highly Simplified Agricultural Landscapes  Patterns of species richness and diversity	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grassla vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00 11:00-11:15  11:15-11:30 11:30-11:45  11:45-12:00  12:00-12:15 12:30-14:00  14:00-14:45  15:00-15:15 15:15-15:30 15:30-15:45 15:45-16:15	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gisal)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordan)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): PLASTIC-WEB. Tracting microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Polary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Benat (glesias (Spain): Influence of seasonal variability on the trophic structure of pelegic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status  *Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Mira Biodiversity and ecosystem functioning  1, Francesco Dattlio (Italy): Ecosystem approach to aspatial mult	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LIDAR remote sensing data: unraveilling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thalius structure as suitable niche for diversity  Hana Soualah Allia (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in froshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.  **Resilience**  **Resilience**, Stability and health of ecological communities**  **Patterns of species richness and diversity**  **Thora Vajna (Hungary): Grassland restoration has contrasting effects on plants, spiden and polirare/nos/ (Slovakia): Soil nematode communities of Ponicka Cave and its vulnerability to political. Response of soil biota to soil characteristics and **Thora Vajna (Hungary): Grassland restoration bas contrasting effects on plants, spiden and polirare/nos/**.	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking spec functional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grassla vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00 11:00-11:15  11:15-11:30 11:30-11:45  11:45-12:00  12:00-12:15 12:30-14:00  14:00-14:45  15:00-15:15 15:15-15:30 15:30-15:45 15:45-16:15	Planary talk / Lynno Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Glest)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordan)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-orderia analysis based on the results of a food web modei: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Buliding)  Planary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Grilli)  Ecological networks and food webs  (Chair: F. Jordán)  Benta (Jessias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Conclusive remarks, Awards  Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Mira Blodiversity and ecosystem functioning  1, Francesco Dattilo (Italy): Ecosystem approach to spatial multispecies management of small scale fishery and the community effects on the Adriatic Sea resources  2. Simone Libralato (Italy): Ecosystem approach to spatial multispecies management of small scale fishery and the community effects on the Adriatic Sea resources  3. Lugenia (Apez-López (Mexico): Fish assemblage of a tropical coastal lagoon in the Guif of Mexico facing anthropic and climatic stressors: Life history changes slong last haif century  4. Mon	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair C. Bacaro)  Michale Torresand (Italy): Exploring biodiversity patterns in forest ecosystems using LIDAR remote sensing data: unraveiling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi regulate species oxistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to malze-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of fabilus structure as suitable niche for diversity  Hana Soualah Alila (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.  12. Melissa R. Gerwin (Australia): Exploring the abiotic context-dependency of plant-plant interactions using climate change experiments  13. Thomas Mieczan (Poland): The effect of experimentally simulated climate warming on the microbiome of carnivorous plants – a microcosm experiment  Resilience, stability and health of ecological communities  14. Gemma Chiaffraelli (Italy): Influences of Landscape Diversification on vegetational Communities Quality: Multi-scale Analitycal Insights on Highly Simplified Agricultural Landscapes  Patterns of species richness and diversity  15. Flora Vajna (Hungary): Grassland restoration has contrasting effects on plants, spiders and pollinators  16. Andrea Čerevková (Slovakia): Soil nematode comm	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grassla vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00  11:00-11:15  11:15-11:30  11:30-11:45  11:45-12:00  12:00-12:15  12:30-14:00  14:00-14:45  15:15-15:30  15:30-15:45	Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Giesl)  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordan)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a martine Natura 2000 site  Farenc Jordán (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a martine Natura 2000 site  Farenc Jordán (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a martine Natura 2000 site  Farenc Jordán (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a martine Natura 2000 site  Farenc Jordán (Italy): PLASTIC-WEB. Tracting microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bactorial and viral communities in the Southern Ocean (Chair: F. Jordán)  Benata (Iglesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status  *Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Miramare)  Conclusive remarks, Awards  *Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Mira Biodiversity and ecosystem functioning  1. Francesco Dattilo (Italy): Ecosystem approach to apatial multispecies management of small sca	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: 6. Bacaro)  Michair Toreani (Italy): Exploring biodiversity patterns in forest cosystems using LiDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurizio Zotti (Italy): Fairy ring fungi equal tespecies coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to malze-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of habitus structure as suitable niche for diversity  Hana Soualah Allia (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.  12. Melissa R. Gerwin (Australia): Exploring the abiotic context-dependency of plant, plant interactions using climate change experiments  Resillonce, stability and health of ecological communities  14. German Chiaffarelli (Italy): Influences of Landscape Diversification on Vegetational Communities Quality Multi-scale Anainycal Insights on Highly Simplified Agricultural Landscapes  Patterns of species richness and diversity  15. Fiora Vajna (Hungary): Grassland restoration has contrasting effects on plants, spiders and pollinators  16. Andrea Čerorková (Slovakia): Soil nematode communities of Ponická Cave and its vulnerability to pollution  17. Cristina Fiera (Romania): Response of soil biots to soil characteristics and management	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grasslat vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00  11:00-11:15  11:15-11:30  11:30-11:45  11:45-12:00  12:00-12:15  12:30-14:00  14:00-14:45  15:00-15:15  15:15-15:30  15:30-15:45  15:45-16:15	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Giss).  Coffee break (Forefront of Aula Magna Miramare)  Ecological networks and food webs (Chair: F. Jordán)  András Hidas (Hungary): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy):  Igor Celic (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes  Elisa Donati (Italy): Spatial multi-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc Jordán (Italy): Aggregating food webs: algorithms, functioning and expertise  Guido Occhipinti (Italy): PLASTIC-WEB: Tracing microplastics up the EU marine food webs  Lunch (ICTP terrace of the Leonardo Building)  Plenary talk / Thulani Makhalanyane (South Africa): Drivers of bacterial and viral communities in the Southern Ocean (Chair: J. Gritti)  Ecological notworks and food webs  (Chair: F. Jordán)  Benati (Jesias (Spain): Influence of seasonal variability on the trophic structure of pelagic communities  Joana Brito (Portugal): A simulation-based approach to assess the stability of marine food-webs and inform Good Environmental Status  *Poster session (21 September 2023 / 16:15-17:15, Forefront of Aula Magna Mira Biodiversity and ecosystem functioning  1. Francesco Datio (Italy): Ecosystem approach to spatial multispecies management of small scale fishery and the community effects on the Adriatic Sea resources  3. Eugenia López-López (Mexico): Fish assemblage of a tropical coastal lagoon in the Guif of Mexico facing anthropic and climatic stressors. Life history changes along last half century  4. Monika M. Saymanska. Walkiewicz (Poland): Effect of floodgate construction on phytoplankton structure i	Bladiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torresani (Italy): Exploring biodiversity patterns in forest ecosystems using LiDAR remote sensing data: unraveilling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitals:  Maurizio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to malze-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thalus structure as suitable niche for diversity  Hans Soualah Alia (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems (Chair: K. Patonai)  Gor Gevorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.  2. Melissa R. Gerwin (Australia): Exploring the abiotic context-dependency of plant-plant interactions using climate change experiments  13. Thomas Miccan (Poland): The effect of experimentally simulated climate warming on the microbiome of carnivorous plants – a microcosem experiment  Resilience, stability and health of ecological communities  14. Gemma Chieffarelli (Italy): Influences of Landscape Diversification on Vegetational Communities Quality. Multi-scale Analitycal Insights on Highly Simplified Agnocultural Landscape.  15. Flora Vajna (Hungary): Grassland restoration has contrasting effects on plants. spiders and polinitates  16. Andrea Gerestova (Slovakia): Soil nematode communities of Ponická Cave and its understeil	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking specifunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grasslar vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of
09:15-10:00 10:00-10:30  10:30-10:45  10:45-11:00 11:00-11:15 11:15-11:30 11:30-11:45  11:45-12:00 12:00-12:15 12:30-14:00  14:00-14:45  15:00-15:15 15:15-15:30 15:30-15:45 15:45-16:15	Registration  Plenary talk / Lynne Shannon (South Africa): From species to ecosystems: exploring community-based indicators as the missing link in marine assessments (Chair: E. Gissi)  Coffee break (Forefront of Aula Magna Miramare)  Ecological notworks and food webs (Chair: F. Jordan)  András Hidas (Hungany): Uncovering causality in ecological networks by interaction asymmetry  Daniele Bellardini (Italy): Plankton and fish community changes investigated by environmental DNA metabarcoding at spatio-temporal scales along the Campania coast (Italy): Ecosystem approaches to support quantitative assessment of fisheries undergoing certification processes. Elias Donati (Italy): Spatial multis-criteria analysis based on the results of a food web model: application to a marine Natura 2000 site  Ferenc. Jordán (Italy): Stochastic onoise effects over plankton communities  Guido Occhipinti (Italy): Stochastic noise effects over plankton communities  Natalia Serpetti (Italy): PLASTIC-WEB. Tracing microplastics up the EU marine food webs.  Lunch (ICTP terrace of the Leonardo Buliding)  Plenary talk / Thulani Makhalanyane (South Africa):  Drivers of bactorial and viral communities in the Southern Ocean (Chair: J. Grill)  Ecological networks and food webs  (Chair: F. Jordán)  Ecological networks and food webs  (Chair: F. Jordán)  Ecological networks and food webs  (Chair: F. Jordán)  Coffee break (Forefront of Aula Magna Miramare)  Conclusive remarks, Awards  Poster session (21 September 2023 / 16:18-17:15, Forefront of Aula Magna Miramare)  Conclusive remarks, Awards  Poster session (21 September 2023 / 16:18-17:15, Forefront of Aula Magna Miramare)  Almonika A Symanskia. Walkiewicz (Poland): Effect of floodgate construction on phytoplankton structure in a coastal lake (short-term vs medium-term)  5. Natalia Mrozińska (Poland): Structure of the benthic fauna with special reference to the larvae of the Chironomidae in the coastal aquatic ecosystems of the southern Britis Sea  8. Markyna Bajkowskia-Horcia (Poland): This influe	Biodiversity and ecosystem functioning in terrestrial ecosystems (Chair: G. Bacaro)  Michele Torseain (Italy): Exploring biodiversity patterns in forest ecosystems using LIDAR remote sensing data: unravelling the influence of forest height heterogeneity  Alessandro Bricca (Italy): Above- and belowground traits along a stress gradient: trade-off or not?  Lucia Doni (Italy): The flora diversity under taxonomic, phylogenetic and functional trait aspects of sub- and alpine semi-natural grassland habitats  Maurzio Zotti (Italy): Fairy ring fungi regulate species coexistence in grasslands  Rasheed Adeleke (South Africa): Interplay between bacterial community assembly and climate variables with respect to maize-soy bean rotational system  Roberto De Carolis (Italy): Lichen mycodiversity in Antarctica reveal the key role of thalius structure as suitable niche for diversity  Hana Soualah Allia (Algeria): Butterflies species abundance dynamics and Distribution of Souk Ahras Forest (North east of Algeria)  Biodiversity and ecosystem functioning in freshwater ecosystems  (Chair: K. Patonai)  Gor Gavorgyan (Armenia): Investigation of phytoplankton dynamics in mountain Lake Sevan, Armenia  Katalin Patonai (Italy): What makes an invader successful? Niche differentiation of four invasive mysid species.  12. Melissa R. Gerwin (Australia): Exploring the abiotic context-dependency of plant-plant interactions using climate change experiments  13. Thomas Miccara (Poland): The effect of experimentally simulated climate warming on the microbiome of carnivorous plants – a microcosm experiment  Resillence, stability and health of ecological communities  14. Gemma Chiaffarelli (Italy): Influences of Landscape Diversification on Vegetational Communities Quality: Multi-scale Analitycal Insights on highly Simplified Agricultural Landscape  Patterns of species richness and diversity  15. Flora Vajna (Hungary): Grassland restoration has contrasting effects on plants, spiders and pollinators  16. Andrea Cereutová (Slovakia): Soil nematode com	Effects of global changes (Chair: E. Gissi)  Elena Gissi (Italy): Exploring potential climate refugia through scenario analysis marine megafauna functional diversity in the Northeast Pacific Ocean  Francesco Boscutti (Italy): The shape of plant community to come: linking spectunctional response and climate-induced shifts in alpine tundra dwarf shrub community  Michele Di Musciano (Italy): Dynamics of mountain vegetation under global change: the microclimate role  Diego Panzeri (Italy): Future distribution of demersal species in a warming Mediterranean sub-basin  Giacomo Trotta (Italy): Soil salt, nitrogen and organic matter content drive early successional plant community composition in dune systems by curbing alien invasion and enhancing native plant diversity.  Ralf Ohlemuller (New Zealand): Up or Around – contrasting effects of elevation and aspect on growing season phenology in alpine plant communities  Effects of global changes (Chair: E. Gissi)  Alessio Mortelliti (USA): A community of personalities: drivers of the diversity of personality traits in wild small mammal populations  Girish Nair (South Africa): Increases in soil nutrients may significantly alter bacterial phyla and their extracellular enzymatic activities in Antarctic soils  Suzanne Horka (Germany): Taxonomical and functional changes in dry grassla vegetation after 30 years  Christian Damgaard (Denmark): Predictive statistical modelling of the effect of

20. Jacinto Elías Sedeño-Díaz (Mexico): Mapping and change analysis in vegetal cover of mangrove community by means of Landsat imagery in a Ramsar site in Atlantic Mexican Slope