



S.It.E. - Società Italiana di Ecologia



**PRIMO CONGRESSO CONGIUNTO
SOCIETÀ ITALIANA DI ECOLOGIA,
UNIONE ZOOLOGICA ITALIANA,
SOCIETÀ ITALIANA DI BIOGEOGRAFIA**

MILANO, 30 AGOSTO - 2 SETTEMBRE 2016
UNIVERSITÀ DI MILANO-BICOCCA
EDIFICIO U6, PIAZZA DELLA SCIENZA 2, 20126 MILANO

PROGRAMMA PRELIMINARE

Aggiornato 21 agosto 2016

PATROCINATO DA:



PRESIDENZA DEL COMITATO SCIENTIFICO

Serena Fonda Umani, Elvira De Matthaëis, Valerio Sbordoni

PRESIDENZA DEL COMITATO ORGANIZZATORE

Paolo Galli, Maurizio Casiraghi

MEMBRI DEL COMITATO SCIENTIFICO

Loriano Ballarin, Marco Bartoli, Alberto Basset, Roberto Bertolani, Ferdinando Boero, Marco Bologna, Daniela Maria Candia, Maurizio Casiraghi, Marina Cobolli, Giuseppe Corriero, Cesare Corselli, Fiorenza De Bernardi, Elisa Anna Fano, Paolo Galli, Marino Gatto, Cristina Giacomina, Caterina Lorenzi, Simonetta Frascchetti, Giulia Maisto, Bruno Massa, Giorgio Matteuci, Antonio Mazzola, Lorenzo Peruzzi, Stefano Piraino, Nicola Saino, Francesco Spada, Sandro Tripepi, Alberto Ugolini, Roberto Valvassori, Augusto Vigna Taglianti, Marzio Zapparoli.

MEMBRI DEL COMITATO ORGANIZZATORE

Roberto Ambrosini, Roberta Bettinetti, Renato Casagrandi, Antonio Finizio, Diego Fontaneto, Annastella Gambini, Barbara Leoni, Valeria Mezzanotte, Emilio Padoa-Schioppa.

SEGRETERIA ORGANIZZATIVA

Anna Marchetti

Massimiliano Pipino

POSTER

[POSTER UZI] (Premio UZI) Nervous system and arm regeneration in crinoids

Aleotti A., Elphick M. R., Candia Carnevali M.D., Sugni M., Semmens D.C., Odekunle E. A., Cai W., Wademan R., Egertová, M., Ferrario C., Bonasoro F. (P001)

[POSTER SITE] Hydrology, water chemistry and microbial community patterns in different urbanized areas of the Tevere river catchment (Rome, Italy)

Amalfitano S., Butturini A., Casadei S., Fazi S. (P002)

[POSTER SITE] First data on an urban population of Green Toad (*Bufo viridis*) in Milan.

Ancona N., Calvi D. (P003)

[POSTER SITE] Integrating LIM results in Ecopath: a working example on the Venice lagoon food web

Anelli Monti M., Pranovi F., Pastres R., Brigolin D. (P004)

[POSTER SITE] (Borsa di Partecipazione) First record of leptocephali of the false moray, *Chlopsis bicolor rafinesque 1810* (Actinopterygii, Anguilliformes, Chlopsidae) from the adriatic sea: morphological and molecular identification

Anibaldi A., Benassi Franciosi C., Tinti F., Piccinetti C., Riccioni G. (P05)

[POSTER UZI] (PREMIO UZI) Inside the brain of the colonial tunicate *Botryllus schlosseri*: when budding involves cyclical neurodegeneration

Anselmi C., Sartori P., Gasparini F., Manni L. (P006)

[POSTER UZI] (Premio UZI) Genetic studies of the Weddell seal in the Ross Sea: a closer look on the colonies in Mario Zucchelli Station area

Antunes Zappes I., Fabiani A., Allegrucci G. (P007)

[POSTER SITE] The interplay between damages and adaptive strategies in *Q. ilex* plants subjected to heavy metal pollution

Arena C., Cataletto P.R., Santorufo L., Memoli V., De Marco A., Maisto G. (P008)

[POSTER SITE] Gene flow and reproductive success along an altitudinal transect in a marginal Norway spruce population

Avanzi C., Piotti A., Spanu I., Piermattei A., Urbinati C., Leonardi S., Vendramin G.G. (P009)

[POSTER UZI] The haemocytes of the colonial ascidian *Diplosoma listerianum*: histochemical, histoenzymatic and ultrastructural studies

Ballarin L., Cima F. (P010)

[POSTER SITE] A multi-temporal interdisciplinary approach between hydrogeology and microbial ecology for assessing the impact of a municipal waste dump on a volcanic groundwater system in Central Italy

Barra Caracciolo A., Rossi D., Grenni P., Cattena F., Di Lenola M., Patrolecco L., Ademollo N., Mascolo G., Ghergo S. (P011)

[POSTER UZI] Evolution of vitellogenin gene family

Barucca M., Biscotti M.A., Olmo E., Forconi M., Canapa A. (P012)

[POSTER UZI] Initial survey of the nocturnal macromoths of the Umbria (Central Italy)

Bencivenga G., Zerunian Z., Tito S., Sorcini S., Luna M., Pallottini M., Goretti E. (P013)

[POSTER UZI] First attempt to measure adult neurogenesis in a lophotrocozoan (*Octopus vulgaris*) brain using flow-cytometry technique

Bertapelle C., Polese G., Porcellini A., Di Cosmo A. (P014)

[POSTER SITE] Patterns of genetic and morphometric diversity of recovered specimens of *Caretta caretta* in the Adriatic Sea

Bertuccio V., Costantini F., Abbiati M. (P015)

[POSTER SITE] Lakes as an alternative source of energy? Preliminary ideas

Bettinetti R., Bellasi A., Dossi C., Ieffa S., Leoni B., Liberale F., Magagnin L., Pozzi A. (P016)

[POSTER SITE] Trophic role of crustacean zooplankton and transfer of POPs through the pelagic food web

Bettinetti R., Piscia R., Boggio E., Caroni R., Manca M. (P017)

[POSTER SITE] BioSpot, ladybirds and students for a citizen science project in urban environment

Bisanti M., Villani G., Pederzoli A., Mandrioli M. (P018)

[POSTER UZI] The *Piwi* subfamily and genes involved in piRNA processing in *Protopterus annectens* and *Latimeria menadoensis*, two living fossil species: insights on the activity of the silencing pathway and evolutionary considerations.

Biscotti M.A., Canapa A., Forconi M., Gerdol M., Pallavicini A., Schartl M., Barucca M. (P019)

[POSTER UZI] Resistance to pyrethroids in the invasive species *Aedes albopictus*

Bonizzoni M., Xu J., Chen X., Yan G. (P020)

[POSTER SITE] Size classes distribution of benthic macrofauna along a disturbance gradient

Borazio M., Bocchi N., Munari C., Mistri M. (P021)

[POSTER SITE] First report of the fungus *Geotrichum candidum* Link as intimate colonizer of *Corbicula fluminea* (Müller, 1774)

Brescia F., Rodolfi M., Paganelli D., Sconfiatti R., Picco A.M. (P022)

[POSTER SITE] Indicators of sediment organic enrichment and their use in Aquaculture Management Areas definition

Brigolin D., Porporato E.M.D., Sara' G., Pastres R. (P023)

[POSTER SITE] Effects of artificial light at night (ALAN) on alpine stream periphyton: a flume simulation

Bruno M.C., Grubisic M., Manfrin A., Singer G., van Grunsven R.H.A., Monaghan M.T., Hölker F. (P0023)

[POSTER SITE] First record of two toxic dinoflagellates in tide pools along the Sardinian coast

Calabretti C., Citterio S., Gentili R., Montagnani C., Navone A., Caronni S. (P024)

[POSTER SITE] (Premio Marchetti) Seasonal sea-ice dynamics and biodiversity organisation in Antarctic benthos

Calizza E., Careddu G., Costantini M. L., Rossi L. (P025)

[POSTER UZI] Avian brood parasitism in the new and old worlds

Campobello D., Sealy S. G. (P026)

[POSTER SITE] Distribution of meiofaunal assemblages along different bathymetric transects at Terranova Bay (Ross sea, Antarctica)

Cantafaro A.L., Gambi C., Lo Martire M., Munari C., Corinaldesi C. (P027)

[POSTER SITE] Diazotrophy in chemosynthetic symbioses: sulphur-oxidizing bacteria of marine invertebrates are capable of nitrogen fixation

Cardini U., Kemper A., Gruber-Vodicka H., van der Geest M., Kleiner M., Bulgheresi S., Mußmann M., Seah B. K. B., Antony C. P., Herbold C., Belitz A., Weber M., Petersen J. M. (P028)

[POSTER SITE] (Premio Marchetti) Biodegradation of xenobiotics as a regulation ecosystem service provided by natural microbial communities

Cardoni M., Grenni P., Patrolecco L., Rauseo J., Ademollo N., Fustolo M., Barra Caracciolo A. (P029)

[POSTER SITE] (Premio Marchetti) The interactive effects of multiple stressors in regulating cell density mucilage production of the invasive microalga *Chrysothrix taylorii*

Caronni S., Calabretti C., Ceccherelli G., Delaria M.A., Macri G., Navone A., Panzalis P. (P030)

[POSTER UZI] (Premio UZI) Times new Genome analysis of bacterial endosymbiont *Holospora caryophylla* from the ciliate protist *Paramecium*

Castelli M., Lang B.F., Burger G., Petroni G. (P031)

[POSTER SIB] Endemism, allopatry and passive transport: the case of two *Proserpinicaris* (Crustacea, Copepoda, Harpacticoida) from Sardinia

Cottarelli V., Bruno M.C., Spina M.T., Grasso R. (P032)

[POSTER SITE] Monitoring the transport of fish eggs and larvae into a Mediterranean coastal lagoon

Cavaro F., Florin R., Redolfi Bristol S., Zucchetto M., Franzoi P. (P033)

[POSTER UZI] Jellies-eating anthozoans

Cerrano C., Preatoni M., Castellano L., Gridelli S., Di Camillo C.G. (P034)

[POSTER UZI] (Premio UZI) A new taxon of freshwater gastrotricha macrodasyida: morphology and notes on its phylogenetic position

Cesaroni L., Guidi L., Garraffoni A.R.S., Araujo T.Q., Lourenço A.P., Semprucci F., Balsamo M. (P035)

[POSTER SITE] Lateral Antimicrobial Resistance Transfer is active in the open environment

Chamosa L., Alvarez V.E., Nardelli M., Quiroga M.P., Cassini M.H., Centrón D. (P036)

[POSTER UZI] Cloning and evolution of allograft inflammatory factor type 1 in coelomocytes of Mediterranean Sea urchin (*Paracentrotus lividus*)

Chiaramonte M., Inguglia L., Arizza V. (P037)

[POSTER UZI] (Premio MarHE) Deep-sea corals and sponges as podium for the suspension feeder

***Ophiolithrix quinqueamaculata* (Echinodermata, Ophiuroidea)**

Chimienti G., Angeletti I., D'Onghia G., Mastrototaro F. (P038)

[POSTER SITE] (Borsa di Partecipazione) Food niche study of the mugilidae *Liza ramada* (Risso, 1826) in Gulf of Gaeta (it) by stable isotope analysis

Cicala D., E. Calizza E., Careddu G., Costantini M.L., Rossi L. (P039)

[POSTER UZI] (Premio UZI) The role of the antennae in sun and moon compass mechanism of *Talitrus saltator* (Crustacea, Amphipoda)

Ciofini A., Ugolini A., Pasquali V., Hoelters L.S., Wilcockson D.C. (P040)

[POSTER SITE] Unique marine benthic bacteria, archaea and viruses inhabiting the hadal biosphere

Corinaldesi C., Rastelli E., Tangherlini M., Dell'Anno A., Danovaro R. (P041)

[POSTER SITE] (Borsa di Partecipazione) Nestling sex and plumage color predict food allocation by barn swallow parents

Corti M., Romano A., Bazzi G., Caprioli M., Costanzo A., Rubolini D. and Saino N. (P042)

[POSTER SITE] (Borsa di Partecipazione) LEAF-NETS (LN): a new quantitative method for sampling benthic invertebrates in spring habitat

Cristiano G., Di Vito G., Miccoli F.P., Vignini P., Cicolani B., Di Sabatino A. (P043)

[POSTER UZI] (Premio UZI) **First data from bird monitoring at Karen Mogensen Reserve, Northwestern Costa Rica**

Dal Zotto M., Romeo G., Carnevali M., Bisanti M., Sonetti D., Mena L., Pederzoli A. (P044)

[POSTER UZI] (Premio UZI) **Toxicity evaluation of neonicotinoid pesticide, thiacloprid, in Zebrafish**

D'Amante G., Brundo M.V., Loreto F., Pecoraro R., Fragalà G., Scalisi E.M., Tibullo D., Camiolo G., Tummino M., Pagliaro G., Lombardo B.M., Messina G., Salvaggio A. (P045)

[POSTER UZI] (Premio UZI) (Premio MarHE) **Arm-tip regeneration in the spiny starfish *Marthasterias glacialis*: an integrated approach**

Daviddi A., Guatelli S., Ferrario C., Bonasoro F., Varela Coehlo A., Candia Carnevali M.D., Sugni M. (P046)

[POSTER SITE] **Cystoseira habitat value in NW Mediterranean, an emergy assessment**

De La Fuente G., Paoli C., Asnaghi V., Chiantore M., Vassallo P. (P047)

[POSTER SITE] **Microbial biomass and activity of newly-shed leaf litter, forest floor and mineral soil of a Black locust monoculture and a coeval adjacent Black pine monoculture**

De Marco A., Esposito F., Arena C., Maisto G., Virzo De Santo A. (P048)

[POSTER SITE] **Microzooplankton community composition in the winter sea ice of the Northern Weddell Sea**

Diociaiuti T., Monti-Birkenmeier M., Fonda Umani S., Meyer B. (P049)

[POSTER SITE] **Artificial streams for studying the resilience of benthic assemblages to drought: a case study from Fersina river basin (Trento, NE Italy)**

Doretto A., Bona F., Falasco E., Piano E., Fenoglio S., Bruno M.C. (P050)

[POSTER SIB] **Levels of endemism in the Italian tenebrionid beetles.**

Fattorini S., Mantoni C., Audisio P.A., Biondi M. (P051)

[POSTER UZI] **Pylon as a condominium: bird colonization of artificial structures occupied by White Stork in the Plain of Gela, Sicily.**

Falzolgher D., Zafarana M.A., Grasso R., Spena M.T. (P052)

[POSTER SITE] **Effectiveness of high-flow releases in the recovery of a river environment compromised by fine sedimentation**

Fenoglio S., Doretto A., Bonetto D., Civallero V., Sereno M., Bo T. (P053)

[POSTER UZI] (Premio UZI) **Expression pattern of extracellular matrix genes during arm regeneration in the brittle star *Amphiura filiformis* (O.F. Müller, 1776)**

Ferrario C., Czarkwiani A., Candia Carnevali M.D., Sugni M., Oliveri P. (P054)

[POSTER SITE] **Potential degradation of chlorpyrifos in remote high-altitude cold SITES: microcosm experiment on forni glacier, Italian Alps**

Ferrario C., Franzetti A., Tagliaferri I., Pittino F., Azzoni R. S., Diolaiuti G.A., Ambrosini R., Villa S. (P055)

[POSTER SITE] (Borsa di Partecipazione) **"Anthurid ivasion" along the Mediterranean coasts: the spreading of mesanthura cf. *romulea* and *Paranthura japonica***

Ferrario J., Lorenti M., Martínez-Laiz G., Ulman A., Marchini A., Occhipinti-Ambrogi A. (P056)

[POSTER UZI] Earthquake-related niche overlap changes in groundwater copepods inhabiting springs fed by the Gran Sasso Aquifer (Central Italy).

Fiasca B., Fattorini S., Di Lorenzo T., Di Cioccio A., Lombardo P., Galassi D.M.P. (P057)

[POSTER UZI] (Premio UZI) Sperm-less Males Modulate Female Behaviour in *Ceratitis capitata*

Gabrieli P., Scolari F., Di Cosimo A., Savini G., Fumagalli M., Gomulski L.M., Malacrida A.R., Gasperi G. (P058)

[POSTER SITE] (Premio Marchetti) Floodplain protection initiatives increase carbon storage and sequestration to mitigate climate changes. The case study of Natural Reserve of Paul do Boquilobo (Central Portugal)

Gaglio M., Pieretti L., Aschonitis V., Santos L., Castaldelli G., Fano E.A. (P059)

[POSTER SIB] Evaluating groundwater dependent ecosystem quality by biodiversity analyses: a proposal from the EC-AQUALIFE Project.

Galassi D.M.P., Fiasca B., Di Lorenzo T., Di Cioccio A., Di Francesco M., Porfirio S., Piermarocchi A., Fattorini S. (P060)

[POSTER UZI] BORIS an easy-to-use, open source event logging software

Gamba M., Friard O. (P061)

[POSTER SITE] MERCES: Marine Ecosystem Restoration in Changing European Seas (H2020 funded project)

Gambi C., Pusceddu A., Danovaro R. (P062)

[POSTER SITE] Ranking drivers of native fish community in lowland rivers of northern Italy (Emilia-Romagna Region)

Gavioli A., Aschonitis V., Lanzoni M., Fano E.A., Castaldelli G. (P063)

[POSTER SITE] (Borsa di Partecipazione) Effects of extremes climate events on intertidal rocky shores

Giommi C., Rinaldi A., Sarà G. (U064)

[POSTER SITE] A cross-community approach to energy allocation among lagoon macro-invertebrate guilds

Gjoni V., Basset A. (U065)

[POSTER UZI] Comparative analysis of fatty acid profiles in three eutardigrade species

Giovannini I., Mantovani V., Galeotti F., Chersoni L., Guidetti R., Volpi N., Rebecchi L. (P066)

[POSTER SITE] How to inform Maritime Spatial Planning from an ecosystem services approach? Challenges from the case of the Adriatic Ionian Region

Gissi E., Venier C., Menegon S., Sarretta A., Appiotti F., Barbanti A., Musco F. (P067)

[POSTER SITE] Effects of artificial light at night (ALAN) on alpine stream periphyton: a flume simulation

Grubisic M., Manfrin A., Singer G., van Grunsven R.H.A., Monaghan M.T., Bruno M.C., Hölker F. (P068)

[POSTER SITE] Exposure and post-exposure effects of chlorpyrifos on the gills of *Carassius auratus*

Guardia A., Macirella R., Sesti S., Bernabò I., Tripepi S., Brunelli E. (P069)

[POSTER SITE] Analysis of the current status of anticoagulant resistance in Norway rat (*Rattus norvegicus*) in Italian populations

Iacucci A., Colangelo P., Mori E., Capizzi D., Gamberi V., Annesi F., Castiglia R. (U070)

[POSTER UZI] Energy production, DNA damage and cell viability

Iannello M., Ghiselli F., Punzi E., Figliola L., Passamonti M., Franceschini V., Maurizii M.G., Breton S., Milani L. (P071)

[POSTER UZI] Genetic peculiarities of the wild boar in Italy

Lancioni H., Vercillo F., Capodiferro M.R., Cardinali I., Biagetti M., Sebastiani C., Iacolina L., Olivieri A., Sergiacomi U., Scandura M., Torroni A., Ragni B., Achilli A. (P072)

[POSTER SITE] $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ seasonality of zooplankton predators and prey to investigate the pelagic food web of lakes with different trophic level

Leoni B., Piscia R., Volta P., Patelli M., Manca M. (P073)

[POSTER SITE] The Taxonomy Lab: a lookout in the Mediterranean Sea

Lo Brutto S., Iacofano D., Schimmenti E., Musco L. (P074)

[POSTER SITE] Morpho-functional alterations induced by lead in the gill apparatus of *Thalassoma pavo*

Macirella R., Guardia A., Crescente A., Bernabò I., Tripepi S., Brunelli E. (P075)

[POSTER UZI] Cave-dwelling planarians and biodiversity from North Italy: preliminary species richness assessment of the genus *Dendrocoelum* (Platyhelminthes, Tricladida, Dendrocoelidae)

Manenti R., Barzaghi B., Melotto A., Santinelli R., Canedoli C., Marieni A., Manconi R., Stocchino G.A. (P076)

[POSTER UZI] Global invasion of *Aedes albopictus* as a vector of arbovirus: what consequences for disease outbreaks?

Manni M., Guglielmino C.R., Scolari F., Vega-Rua A., Failloux A.-B., Somboon P., Lisa A., Savini G., Bonizzoni M., Gomulski L.M., Malacrida A.R., Gasperi G. (P077)

[POSTER SITE] Sunscreen products affect reproduction and larval development of *Paracentrotus lividus*

Marcellini F., Falugi C., Corinaldesi C. (P078)

[POSTER SITE] How to communicate research achievements: experiences from a European project

Mea M., Newton A., Uyarra M. C., Alonso C., Borja A. (P079)

[POSTER UZI] Insights into population genetics, connectivity and phylogenetics of the long-nosed skate *Dipturus oxyrinchus* (Linnaeus, 1758).

Melis R., Vacca L., Cau A.I., Follesa M.C., Cannas R. (P080)

[POSTER SITE] Soil quality along two roads of the Vesuvius National Park exposed to different vehicular traffic

Memoli V., Panico S., Esposito F., De Marco A., Arena C., Maisto G. (P081)

[POSTER UZI] Do bioactive molecules exist in *Armadillo officinalis* Dumèril, 1816? (Crustacea, Isopoda, Oniscidea)

Messina G., Tibullo D., Pecoraro R., D'Amante G., Brundo M.V., Lombardo B.M. (P082)

[POSTER UZI] Effects of bisphenol A on early development of the ascidian *Phallusia mammillata* (Chordata, Tunicata)

Messinetti S., Mercurio S., Pennati R., De Bernardi F. (P083)

[POSTER UZI] (Premio UZI) Project "Biodiversity Mare Tricase" - A biodiversity inventory of the coastal area of Tricase (Apulia, Lecce, Italy) in the Otranto Channel

Micaroni V., Strano F., de Felice J., Di Franco D., Gravili C., Zuccarello V., Medagli P., Giangrande A., Terlizzi A., Belmonte G., Piraino S., Boero F. (P084)

[POSTER SITE] What makes *Halophila stipulacea* a successful colonizer in a wide range of environmental conditions? A look into its ecological plasticity in its native SITE using a multidisciplinary approach
Migliore L., Rotini A., Mejia A. J., Beca P., Winters G. (P085)

[POSTER SITE] Example of use of a simulation tool in the assessment of exposure to chemicals
Milillo C. (P086)

[POSTER SITE] Long-term ecological research and benthic diversity changes in the Valli di Comacchio
Mistri M., Munari C. (P087)

[POSTER SITE] Biotic invasions in an Adriatic lagoon
Mistri M., Bocchi N., Borazio M., Munari C. (P088)

[POSTER UZI] Protist ciliates as natural reservoir for bacteria potentially pathogenic for metazoan: preliminary results of the experimental infection of the planarian *Dugesia*
Modeo L., Salvetti A., Rossi L., Vannini C., Di Giuseppe G., Fokin S., Petroni G., Verni F. (P089)

[POSTER SITE] Effects of ecological restoration works on the benthic diversity of the Valli di Comacchio
Munari C., Mistri M. (P090)

[POSTER SITE] Is the size of wetland important to macrozoobenthic biodiversity?
Muresan A.N., Gaglio M., Ibram O., Aschonitis V., Lanzoni M., Vincenzi F., Castaldelli G., Fano E.A. (P091)

[POSTER SITE] Identification of migratory routes of European blackbird (*Turdus merula*) and song thrush (*Turdus philomelos*) in Lombardy from ring recoveries.
Musitelli F., Spina F., Ambrosini R. (P092)

[POSTER UZI] (Premio UZI) A comparative morphological-molecular study of two free-living plagiopylids and their archaeal endosymbionts from anthropized areas of Kolleru Lake, India
Nitla V.M., Serra V., Fokin S.I., Modeo L., Kalavathi C., Bhagavathula Venkata Sandeep B.V., Verni F., Petroni G. (P093)

[POSTER UZI] Ago genes in two living fossil species, *Protopterus annectens* and *Latimeria menadoensis*: evolutionary considerations.
Olmo E., Biscotti M.A., Canapa A., Forconi M., Gerdol M., Pallavicini A., Schartl M., Barucca M. (P094)

[POSTER SITE] What is the matter with these specimens? Unusual shell erosion of the *Corbicula fluminea* (Veneroida: Corbiculidae) (Müller, 1774) in two small streams of the sub-lacustrine Ticino River basin
Paganelli D., Sconfiatti R., Sapienza G. (P095)

[POSTER UZI] Hindwings and elytra: shape and size evolution in dung beetles.
Palestrini C., Roggero A. (P096)

[POSTER UZI] (Premio UZI) Ecological characterization of the Clitunno River (Central Italy): a lowland stream fed by limnocratic spring
Pallottini M., Cappelletti D., Selvaggi R., Calderini C., Cardenas J., Catasti M., Dell'Otto A., D'Onofrio M., Fiorucci S., Pagliarini S., Perilli S., Presciuttini L., Vita G., La Porta G., Goretti E. (P097)

[POSTER SITE] The distribution of the non-native *Gammarus roeselii* Gervais 1835 and native *Echinogammarus stammeri* (Karaman 1931) in the irrigation system of the sub-lacustrine Ticino River (Lombardy, Northern Italy)

Pandolfi A., Paganelli D., Sconfiatti R. (P098)

[POSTER SITE] (Premio Marchetti) **Eggspore: a promising approach to assess the toxicity of environmental pollutants**

Parolini M., Possenti C.D. (P099)

[POSTER SITE] Droughts increase turnover and niche width of diatom benthic communities in mediterranean streams

Piano E., Falasco E., Bona F. (P100)

[POSTER UZI] (Premio UZI) **They are among us: the European invasion of the alien brown marmorated stinkbugs *Halyomorpha halys* (Heteroptera, Pentatomidae)**

Piemontese L., Cesari M., Maistrello L., Giovannini I., Dioli P., Partsinevelos G. K., Rebecchi L., Guidetti R. (P101)

[POSTER UZI] (Premio UZI) **An integrated view on the regeneration of the different skeletal elements in the arm of *Amphiura filiformis***

Piovani L., Ferrario C., Czarkwiani A., Bonasoro F., Candia Carnevali M.D., Oliveri P., Sugni M. (P102)

[POSTER SITE] **Co-creating a decision support framework to ensure sustainable fish production in Europe under climate change (CLIMEFISH)**

Pranovi F., Anelli Monti M., Brigolin D., Franzoi P., Pastres R., Zucchetta M. (P103)

[POSTER SITE] **Application of SMCE for sustainable development of shellfish farming along the Adriatic coast**

Porporato E.M.D., Brigolin D., Prioli G., Pastres R. (P104)

[POSTER SITE] **Spatio-temporal variations in virus and prokaryote abundance in the Antarctic Sea Ice**

Pusceddu A., Dell'Anno A., Corinaldesi C., Michaud L., Danovaro R. (P105)

[POSTER SITE] (Premio Gaggi) **Towards an eco-friendly management of sediment flushing from Alpine reservoirs**

Quadroni S., Brignoli M.L., Crosa G., Gentili G., Salmaso F.S., Espa P. (P106)

[POSTER SITE] **Gilthead seabream juveniles migration dynamic in the Venice lagoon**

Redolfi Bristol S., Zucchetta M., Cavarro F., Pastres R., Riccato F., Franzoi P. (P107)

[POSTER UZI] (Premio MarHE) **Geographic variation and habitat preference of the Italian endemic butterfly *Melanargia arge***

Riccarducci G., Cesaroni D., De Felici S., Sbordoni V. (P108)

[POSTER SITE] **Genetics of local adaptation in Atlantic bluefin tuna from the Mediterranean Sea**

Riccioni G., Cariani A., Ferrara G., Stagioni M., Tinti F. (P109)

[POSTER UZI] **Ecotoxicological evaluation of a digestate for an agricultural use: effects on reproduction of *Folsomia candida* (Collembola: Hexapoda)** (P110)

Sabatini M.A., d'Errico M., Lancellotti I.

[POSTER UZI] (Premio UZI) **Comparative embryotoxicity of Glyphosate-based herbicide and Glyphosate**

active ingredient on *Xenopus laevis*.

Saibene M., Bonfanti P., Mantecca P., Gornati R., Bernardini G., Bacchetta R., Colombo A. (P111)

[POSTER SITE] Distribution and diet of a recently-established population of *Lutra lutra* in the Valley of the River Ticino

Smiroldo G., Balestrieri A., Tremolada P. (P112)

[POSTER UZI] *Aglaophenia octodonta* (Cnidaria, Hydrozoa) and the associated microbial community: a cooperative alliance?

Stabili L., Boero F., Alifano P., Pizzolante G., Lezzi M., Gravili C. (P113)

[POSTER UZI] (Premio UZI) Larval and adult nervous systems in *Rhabdopleura sp.* (Hemichordata, Pterobranchia)

Strano F., Micaroni V., Beli E., Scari G., De Bernardi F., Pennati R., Piraino S. (P114)

[POSTER UZI] (Premio MarHE) Distributional pattern of cold-adapted plants and arthropods in a peripheral mountain range: cold- and warm-stage refugia should be considered

Tampucci D., Gobbi M., Pantini P., Cabrini E., Muzzolon I.A., Bernasconi M., Mangili F., Scotti R., Tantardini D., Caccianiga M. (P115)

[POSTER SITE] Metagenomic analyses of bacterial mats from deep basaltic rocks

Tangherlini M., Corinaldesi C., Dell'Anno A., Danovaro R. (P116)

[POSTER SITE] Microbial community dynamics during biodesulfurization process of Ground Tire Rubber

Tatangelo V., Mangili I., Perri R., Caracino P., Lasagni M., Bestetti G., Franzetti A. (P117)

[POSTER SITE] *Paranthurus japonicus* Richardson, 1909 (Anthuridea, Isopoda): actual state of the invasion in the Mediterranean Sea

Tempesti J., Langeneck J., Castelli A. (P118)

[POSTER SITE] Education for Sustainable Development in the Schools of Enna (Sicily) in SY 2015-2016

Termine R., Muscarà M. (P119)

[POSTER UZI] Sicilian endemic amphibians and reptiles of the nature reserve of Pergusa Lake (Enna, Italy).

Termine R., Turrisi G.F. (P120)

[POSTER SITE] Role of ecological scenarios in modelling accumulation of organic chemicals in vegetation

Terzaghi E., Morselli M., Cerabolini B., Di Guardo A. (P121)

[POSTER SITE] (Borsa di Partecipazione) Acoustic survey for broad-scale studies on insect distribution: the case of the tree cricket *Oecanthus dulcisonans* gorochov 1993

Todisco S., Labadessa R. (P122)

[POSTER UZI] Pheromone signalling in ciliates: insights into the evolution of the pheromone molecular structure and pheromone-gene organization in *Euplotes*

Vallesi A., Ricci F., Alimenti C., Luporini P. (P123)

[POSTER UZI] Eco-morphological patterns of sagittal otolith in European anchovy from northern and middle Adriatic Sea

Vallisneri M., Montanini S., Benni E., Stagioni M., Randi M. R., Valdrè G. (P124)

[POSTER UZI] (Premio MaRHE) Regenerative potential of *Echinaster sepositus* (Retzius, 1783) arm explants: macro- and microscopic analyses

Valoti G., Ferrario C., Candia Carnevali M.D., Sugni M. (P125)

[POSTER SITE] Genetic and phenotypic features of barbel population (*Osteichthyes: Cyprinidae*) in Oglio Sud Regional Park

Vanetti I., Quadroni S., Malaggi F., Spettoli O., Gentili G., Crosa G., Zaccara S. (P126)

[POSTER SITE] Determination of labelled and unlabeled nitrate via combination of sediment slurries and MIMS

Vincenzi F., Moraes P.C., Castaldelli G., Bartoli M., Fano E.A. (P127)

[POSTER SITE] Improving runoff calculation in Soilplus model: implementing slope correction to predict chemical fate in mountain river basins

Vitale C.M., Morselli M., Di Guardo A. (P128)

[POSTER UZI] Risks of forage in dumps: the case of White Stork (*Ciconia ciconia*) in Sicily.

Zafarana M.A., Grasso R., Spena M.T. (129)

[POSTER UZI] Zebrafish nutrition: zoological, ecological (and ethical) challenges of live feeding in the lab animal science field

Zarattini P., Galligioni V. (P130)

[POSTER SITE] Long term fish based ecological status evaluation in the Venice lagoon

Zucchetto M., Scapin L., Franzoi P. (P131)

Hindwings and elytra: shape and size evolution in dung beetles.

Palestrini, C.^{1*}, Roggero, A.¹

¹University of Torino, Department of Life Sciences and Systems Biology, Torino, Italy

* claudia.palestrini@unito.it

Most of the dung beetles are excellent fliers. This skill enables long dispersal movements, and makes effective the search for mates and ephemeral and/or unpredictable food sources. Besides, the ability to fly may be lost as a consequence of adaptation processes to peculiar habitat and niche conditions. We studied Scarabaeidae species that recover hindwings below the elytra at rest (27 species of two subtribes: 11 Drepanocerina and 16 Onthophagina). In these dung beetles the hindwing folding mechanism is basically the same and is articulated in at least five major steps. The geometric morphometrics approach was applied to examine the overall shape variation of hindwings (landmarks method) and right elytra (semilandmarks method). The relative warps analysis highlighted that Drepanocerina and Onthophagina displayed two distinct morphological hindwing patterns (54.35 % the overall shape variation explained by RWs 1 and 2), but with low degree of variation, within a framework of relative hindwing shape consistency probably due to functional constraints. The first two RWs of the right elytra represent instead more than the 88% of the overall shape variation, evidencing thus different pattern in the two subtribes. The analysis of shape covariation by partial least-squares analysis gave significant results ($r = 0.84$, cross set analysis = 95% and permutation tests = 0.10%), being the two structures strictly correlated. Furthermore, the two subtribes were clearly separated in the plot of the first vectors correlation. Analyses of regression scores on log centroid size (as a measure of size) evidenced that hindwings allometric trajectories of the two subtribes are similar (they are roughly parallel), whereas elytra trajectories are very different (they diverge at increasing log centroid size values). This suggests that the evolution of elytra shape-size relationships of the two groups diverge, whereas the evolution of hindwings shape-size relationships do not, maybe due to functional constraints. To visualize in detail the evolutionary history of phylomorphospace changes and evaluate the diversification of related Onthophagina taxa, the hindwing and elytron shapes were mapped onto a molecular phylogenetic tree (COI sequences). This study suggests that the puzzle of Scarabaeidae evolutionary history can be powerfully elucidated with researches of hindwings shape and size, reflecting or not the evolution of the elytra morphology and the environmental scenarios in which the dung beetles have differentiated.