



The 17th European Carabidologists Meeting – continuity in exploring diversity of carabids in relation with current changes in the environment

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The 17th European Carabidologists Meeting (17th ECM) was organised in 2015, and for the first time it was held in Croatia. This was a great honour and privilege to join the 12 European countries that have already hosted these distinguished meetings. Forty Eight years have passed since the first meeting was held in Wijster in the Netherlands (1), organised by the famous Dutch ecologist Piet den Boer in 1969 who celebrates his 90th birthday this year. The tribute to this great carabidologist together with George E. Ball another world famous carabidologist who also celebrates his 90th birthday this year was given during the 4th International Symposium of Carabidology (4th ISC) in Athens Georgia, USA. Thanks to our colleague John Spence from the University of Alberta, Canada, who initiated and organised this international symposium.

The 17th ECM was attended by 112 participants, including organisation team members, coming from 21 European countries and from Canada (2). It was organized by: Lucija Šerić Jelaska, Paula Durbešić and Sven Jelaska from the Croatian Ecological Society and Faculty of Science at the University of Zagreb; Renata Bažok and Tomislav Kos from the Faculty of Agriculture in Zagreb; Martina Temunović and Ivan Katanović from the Association BIOM; Drago Marguš from the Krka National Park and Snježana Vujčić-Karlo from The National Museum in Zadar.

The significance of the meeting was recognised by Croatian state authorities and was under the patronage of President of Republic of Croatia Mrs Kolinda Grabar-Kitarović and Croatian Ministry of Science, Education and Sports who supported this meeting financially, together with other donators (2, 3).

The moto of the 17th ECM, “Learning about carabid habits and habitats – a continuous process in a continuously changing environment”, emphasized the continuous research on carabid beetles across Europe and beyond, in various types of habitats in relation to rapid environmental changes, such as climate changes, land use changes, habitat degradations, as well as long term recoveries after disturbances, and various anthropogenic pressures. Besides these themes, the topics about morphology, taxonomy, physiology and evolution of carabids were presented as well, showing state of the art methodologies and making progress within the carabidology and overall knowledge about carabids.

Of the 92 presentations, 45 were talks grouped within eight sections (Carabids and peculiar habitats – evaluation and conservation; Impact

of habitat disturbances on carabid assemblages; Morphology, taxonomy and evolution of carabids; Life history traits, diversity and distribution of carabids; Effects of long term changes on carabids; Spatial analyses of carabids – diversity of scales and methods; Agroecology, Ecotoxicology and physiology of carabids).

The highly appreciated contributions were three invited talks, given by eminent scientists Achille Casale from the University of Sassari, Italy – “Past, present and future knowledge of subterranean carabid beetles in the Dinaric chain” (4), Jean-Yves Rasplus from the Centre de Biologie pour la Gestion des Populations, INRA, France – “Reconstructing the biogeographical and evolutionary history of the genus *Carabus*, from multiple genes to pangenomic markers” (5) and Pietro Brandmayr from the Dipartimento Biologia, Ecologia e Scienze della Terra, Università della Calabria, Italy – “Climate change and its impact on epigeal and hypogean carabid beetles” (6).

There were 35 student presentations, and for the first time organisation and scientific committees decided to give two awards: one for the best student oral presentation and another for the best poster presentation. There were many exceptionally high quality presentations among young colleagues, and some small differences prevailed final decisions. The student award for the best talk went to Bartosz W. Schramm from Jagiellonian University, Poland for his contribution entitled “The hows and whys of ommatidia measurement in the compound eyes of Beetles” (7). Besides having a very visually appealing presentation, he also showed some novel approaches and advanced methods in morphology and physiology of carabids. The best student poster award went to the group of PhD students of John Spence from the University of Alberta, Canada for their contribution entitled “Estimating carabid population size: The relationship between abundance and capture area of pitfall traps”, (8) who clearly presented a very interesting and comprehensive study on pitfall trapping.

Besides presentations, the workshop on scientific writing organised for students were included within the scientific programme. The object of the workshop was to develop the skills necessary for generating high quality scientific manuscripts for publication in international journals. The teachers of the course were Gabor Lövei from the Aarhus University, Denmark and Stephen Venn from the University of Helsinki, Finland.

The Proceedings of the 17th ECM are published as a regular issue within the volume 118 of *Periodicum biologicorum*. This issue contains the selection of papers that were presented during the meeting in Primošten and covers various aspects of Carabidology.

I would like to highlight the continuous research on carabid beetles in different habitats in relation to environmental changes, such as climate change (9), and long term recoveries after disturbances or habitat degradations due to land use (10, 11, 12, 13, 14); as well as actuality and importance of research about effects of different agricul-

tural management types on carabid beetles (15, 16) and use of carabids to monitoring environmental impacts in agroecosystems (17).

Studies about life history traits, taxonomy, diversity and distribution of carabids along an altitudinal sequence of alpine habitats (18), flood-plain meadows in the Siberian Biosphere Nature Reserve area (19), along latitudinal gradient (20), forests (21) and agricultural landscape (22), predation on epigeic, endogeic and anecic earthworms in forests (23), mite infection (24) and molecular taxonomy of *Carabus maacki* (25), revealed some novelties in conservation, ecology, biology and phylogeny of carabids.

The organizing committee particularly appreciated the great help of Iva Čupić – who drew *Carabus croaticus* for our logo, Barbara Špadina, Ivan Šapina, Josip Skejo and Antonio Tudić, the students from the Faculty of Science in Zagreb. Last but not least, as a guest editor I greatly appreciated the help of the reviewers who did the great work and voluntarily contributed to the higher quality of this issue.

In 2017, the meeting will be organized by Manuel Plantegeest and his team in Rennes, in France, from September 24th to 29th. I hope we will all meet there and I am eagerly looking forward to hearing about new findings in the world of carabidology.

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