



When Ecology and Behaviour meet: Introduction to the special section on the Ecology and Behaviour Meeting 2016

The current special section of *Animal Biology* is composed of papers written by participants of the 12th Ecology and Behaviour meeting, held from 27 June until 1 July 2016, in Lyon, France. The Ecology and Behaviour meeting is an annual international congress focussed on ecology, evolutionary biology and behavioural ecology. One thing that is special about this international meeting is that it is fully organised by young researchers working in these fields of science. This year, PhD students and post-doctorates of two laboratories from Lyon, France (UMR CNRS 5558 Laboratoire de Biométrie et Biologie Évolutive and UMR CNRS 5023 Laboratoire d'Ecologie des Hydrosystèmes Naturels et Anthropisés) were in charge of the coordination. The second remarkable feature of the Ecology and Behaviour meeting is that it is totally free (participation fees, food and accommodations) for participants. This year, 77 participants from 14 countries have been welcomed to this four-day meeting. Oral presentations were organised around six themes, for each of which two internationally renowned specialists were invited. Hence, all participants benefited from the presence and experience of peers which guaranteed the high quality level of the meeting.

In the eleven plenary lectures that were given, the following important biological themes were presented and discussed. Ulrika Candolin (University of Helsinki) discussed why cue-preference systems of animals are so sensitive to rapid environmental changes. To improve the understanding of sexual selection in general, Joris Koene (VU University Amsterdam) discussed how accessory gland proteins in hermaphrodites can target their partner's male function, besides affecting their partner's female function. Research presented by Gilles Escargel (University of Lyon) focused on deep-time macroevolutionary and macroecological history of biodiversity. Helene Morlon (Institute of Biology of the Ecole Normale Supérieure) fed the debate about global warming studying how clade-wide rates of diversification and phenotypic evolution vary with abiotic drivers. An unusual session about technical

and methodological innovations in ecology and evolution was introduced by Sandrine Pavoine (National Museum of Natural History, Paris) and Yan Ropert-Coudert (French National Center for Scientific Research). To improve the understanding of population dynamics and genetics, Eric Petit (French National Institute for Agricultural Research) illustrated how dispersal distances differ between sexes in a few mammalian species and Fernando Colchero (University of Southern Denmark) focused on senescence effects. Natacha Kremer (University of Lyon) kicked off the interspecific interaction and coevolution session using a symbiotic association between squid and luminous bacteria. Finally, Simon Benhamou (University of Montpellier) discussed why and how movement scale matters in movement ecology and Julien Cote (University of Toulouse) contributed to this session by presenting his research on an invasive fish.

This is the first time that this meeting collaborates with a scientific journal. We are grateful to Joris Koene, who is also Editor-in-Chief of *Animal Biology*, for encouraging us to conclude the meeting by publishing some of the work of our young researchers. The three following articles were selected from the conference participants and each of them link to one of the themes of the conference: *coevolution and interspecific interaction* (Effects of different hosts species on the life history of *Bracon hebetor* by Muhammad Sajjad Khalil et al.), *sexual selection and sociality* (Male biased litter sex ratio in the southernmost Iberian population of edible dormouse: A strategy for fighting against isolation? by Mariona Ferrandiz-Rovira, Lídia Freixas et al.), and *biodiversity facing global change* (Impact of fluctuating thermal regimes on *Drosophila melanogaster* survival to cold stress by Marion Javal et al.).

To end this introduction, I would like to thank all the speakers and poster presenters that contributed to this scientific event, as well as all those who made this international meeting happen, in particular the many and varied sponsors (for details see <https://eb2016.sciencesconf.org/>). Finally, we sincerely hope and expect that the collaboration with the journal *Animal Biology* will continue for the 13th edition of the Ecology and Behaviour meeting.

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