



# A community under a pulse perturbation experiment: editorial

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Published online: 21 October 2022  
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Following two previous successful meetings in Budapest in 2017, and Bologna in 2019, the 3rd International Conference of Community Ecology needed to be organized on-line (from Budapest), in the shade of the COVID pandemic. This was a challenge for the Organizers and for the relatively young crew of community ecologists that has been formed during the first two meetings.

It was therefore not surprising that the number of presentations was rather low (21 talks), but included five excellent plenary talks by Alberto Basset (Università del Salento, Lecce, Italy), Laura Dee (University of Colorado, Boulder, USA), Vojtěch Novotný (Biology Centre CAS, České Budějovice, Czech Republic), János Podani (Eötvös Loránd University, Budapest, Hungary) and Alexandra Worden (GEOMAR, Kiel, Germany). This 5:16 ratio made the conference into a full-day workshop (14 December 2021).

Four Authors submitted to our conference block (i.e. a mini Special Issue), so we can present two experimental studies (both on human impacts) and two modelling exercises (both on comparing models).

Fanfarillo and colleagues (Fanfarillo et al., 2022) compared the community-wide effects of different agricultural management scenarios in various locations in Tuscany (Italy). Studying arable plants, diurnal flying insects and pollinators they assessed the effects of farming systems and particular locations on biodiversity and ecosystem functioning.

Another paper (Fuat et al., 2022) compared the parasitoid and hyperparasitoid community on a major oil palm pest in Good Agricultural Practice (GAP) and non-GAP locations in Malaysia. Conclusions will be useful for Integrated Pest Management (IPM) in one of the most infamous agricultural areas of the world.

One modelling exercise (Mohd, 2022) is focused on the robustness and predictive power of stochastic and deterministic models. This is a single-species study but it does contribute to understanding of basics of multi-species models. In particular, it sheds light on the consequences of small population sizes, an evergreen issue in conservation biology.

The other modelling exercise (Patonai and Fábián, 2022) outlines a potentially very important research line, comparing well-known methodological approaches usually applied to characterize the functioning of aquatic ecosystems. The Authors used Ecopath, Loop Analysis and STELLA for a single, small aquatic food web model. They show how the differences and similarities of modelling outcomes can depend on trophic height.

Only four papers, but offering two clear directions: understanding human impacts and proposing novel solutions for better matching models to problems. Surely, these are among the greatest challenges in community ecology.

How will our community recover after the COVID times is still unpredictable but we hope that the 4th conference (in 2023, the venue to be announced soon) will be popular and fruitful.

Finally, let us acknowledge all participants of the 3rd International Conference on Community Ecology and also the support from the technical organizing team, Krisztina Tóth and Erna Sári (both at AKCongress).

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## References

- Fanfarillo, E., Calabrese, D., Angiolini, C., Bacaro, G., Biagioti, S., Castagnini, P., Loppi, S., Martellini, T., & Maccherini, S. (2022). Effects of conventional and organic management on plant and insect communities in a traditional

- elephant garlic crop. *Community Ecology*. <https://doi.org/10.1007/s42974-022-00091-w>
- Fuat, S., Adam, N. A., Hazmi, I. R., & Yaakop, S. (2022). Interactions between *Metisa plana*, its hyperparasitoids and primary parasitoids from Good Agriculture Practices (GAP) and non-GAP oil palm plantations. *Community Ecology* (in Press).
- Mohd, M. H. (2022). Revisiting discrepancies between stochastic agent-based and deterministic models: a single-species perspective. *Community Ecology* (in Press).
- Patonai, K., & Fábíán, V. A. (2022). Comparison of three modelling frameworks for aquatic ecosystems: Practical aspects and applicability. *Community Ecology* (in Press).