



Workshop Knowledge Utilization in Evolutionary Research

Report of the workshop

The workshop took place 29 March 2022 from 13:30 to 17:00 in *gathertown*. Twenty three participants listened to the different perspectives of four speakers from the field, after which participants met with the speakers in smaller groups to discuss issues related to knowledge utilisation of their choice. *Leen van den Oever* (director of the Netherlands Institute for Biology, NIBI) presented how the labour market perceives evolutionary biology, which was rather sobering: evolutionary biology is not seen as important knowledge by industry and researchers involved in most top sectors. Leen emphasised the important predictive potential for evolutionary biology with respect to societal problems, such as pandemics, climate change and agriculture, which evolutionary biologists should stronger advocate. Next, *Dr. Michiel van Boven* (Center for Infectious Disease Control, RIVM) gave his perspective on how evolutionary biology is seen in epidemiological research. Also there, the term 'evolution' is often avoided and replaced by more neutral terms such as 'strain replacement', which have stronger and broader appeal, perhaps because evolution is seen as 'complex'. Michiel also presented a useful overview of possible knowledge utilisation partners, including the EU, EMA (European Medicine Agency), HERA (European Health Emergency preparedness Response Agency), water boards, Naturalis and the Hortus botanicus of several universities.

After discussions in breakout sessions with the first two speakers and a break, two more speakers gave their perspective. *Prof. Katja Peijnenburg* (University of Amsterdam and Naturalis Biodiversity Centre) talked about her experience with outreach of her research on the role of plankton evolution in the acidification of oceans. Katja has ample experience with TV, radio and written press and showed the importance of enthusiasm, layman's language and strong images and appealing presentation material (e.g. 3D prints of her snail shells) for outreach. Finally, *Prof. Duur Aanen* (Laboratory of Genetics, Wageningen University) gave a broad perspective on knowledge utilisation of evolutionary research in Darwinian Agriculture, based on the book by Ford Denison with the same title and his successful experience with obtaining a Vici grant with his research on a 'fungal crop' grown by termites. Duur mentioned how understanding key concepts in evolutionary biology, such as selective constraints from trade-offs, the levels of selection and epistasis, can help to design improved selection protocols.

Speakers and organisers look back at a successful and stimulating workshop, and hope that the participants found the workshop also useful and stimulating for their current or future grant applications. By bringing together people with diverse links to evolutionary research, we hope that participants may benefit from new ideas and connections, with which they may form peer-feedback circles to develop successful knowledge utilisation plans. Don't be shy, evolution is crucial for many societal problems, from health to agriculture and biodiversity, and it is up to us to spread this unique knowledge. Good luck with your next grant application!

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