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Species on the Move

Historical Perspectives on Invasive Species

In his seminal work *The Ecology of Invasions by Animals and Plants* (1958), British ecologist Charles Elton warned of „one of the great historical convulsions of the world’s fauna and flora“ (p. 22), which he believed resulted from the ongoing human-induced movements of animals and plants around the globe. „Instead of six continental realms of life [...] there will only be one world“ (p. 62), he wrote. This prediction has been exploited by ‘invasion science’, a current stream of research that has taken shape since the 1980s. Forty years later, we still live in a world where both humans and other biota (animals, plants, fungi and microbiota) are facing severe challenges such as climate change, mass extinction, habitat loss, toxic waste and other issues that can be subsumed under the flagship term ‘Anthropocene’ (Crutzen / Stoermer, 2000). So called ‘invasive species’ – members of regionally non-native species ‘invading’ new environments as a result of human agency (Simberloff, 2013, p. 2) – are, on the one hand, considered a further instance of such contemporary challenges by invasion scientists, policymakers, ecosystem managers, farmers, environmentalists, and the media. On the other hand, however, there are more and

more voices emerging that frame the movement of animals and plants to more suitable regions in the world as a hope for future biodiversity to survive the ongoing climatological and ecological upheavals (Thomas, 2017, p. 78)

In this two-day workshop taking place on November 11-12, 2024 in Zurich, we aim to historicise such different perspectives on anthropogenic movements of animals and plants around the world. By integrating the lenses of the humanities and the natural sciences as well as the insights of experts outside of academia who apply these considerations in their work, we will problematise the notion of 'invasive species' and explore the many ways humans and other biota have historically tried to deal with changing ecosystems.

For the first day of this workshop, **we encourage participants to submit papers that look at regionally 'invasive species' and animals and plants on the move in a historical perspective:**

- What is the conceptual history of 'invasive species' and its epistemic precursors?
- How can the alleged xenophobic language and political discourses engrained in the concept be related to forms of human discrimination?
- How have the concrete material consequences for biota deemed 'invasive' been shaped politically, economically, legally, or scientifically?
- How did that notion contribute to transforming ecological and sanitary orders, along with the trajectory of bio-policing?
- Finally, by centering on nonhuman agency, what are the histories that can be told by following biota deemed 'invasive' as historical actors?

The message conveyed by invasion scientists derives from the idea that there exists a purity of native ecosystems and hence the need for the recreation of 'pristine' nature. The alien/native dichotomy being permeated with cultural assumptions of belonging, invasiveness has been informed by, and reflected in, the historically situated production of 'otherness' (Shinozuka, 2022).

Although an operating principle of contemporary invasion biology, the idea of biotic nativeness has deeper historical roots. Structured from the 1830s onwards by English botanists John Heslow and Hewett Watson (Chew / Hamilton, 2010, p. 37), biotic nativeness is closely tied to human dispersal. Populations of non-native species could move through pathways, that

is a human-mediated process that facilitates the movement of organisms from one region to another. Indeed, the acceleration of international trade and the development of transport in the 19th century led to encounters with unknown biota in far-flung places. As well as endangering so-called 'native' species, some 'alien' ones were labelled invasive in that they could sometimes pose a serious threat to economies and human health. Some of these introduced species could have damaging effects, with the notorious example of diseases of crops and livestock, raising both economic and food safety issues. The potato famines that occurred in Western Europe during the 19th century, for example, were caused by potato blight, a fungus introduced from North America. Similarly, introduced mosquito populations could represent a public health issue insofar as they are vectors of pathogens.

For the second day of this workshop, we invite the participants to both a field trip and a public panel discussion. We thereby intend to go beyond the confines of academia in two different ways. Intellectual reflections of regionally 'invasive species' and animals and plants on the move during the ongoing climatological and ecological upheavals are both inherently entwined with material conditions outside of the conference room and, at the same time, of great relevance to a concerned local public. We hope to encourage historians to embrace these tangible components of our work and to take the chance to propose alternative outlooks on the future inspired by the multicoloured variety of courses of action that we encounter in the past.

In the morning, a field trip to the local *Sihlwald* forest in the surroundings of Zurich will allow the participants to interact with plants deemed 'invasive' in a more-than-textual manner. The forest, following a strict policy of non-management since the 1980s, has been left to 'nature itself' to develop organically by its owner, the city of Zurich. The one exception to this strong objective of no human intervention is provoked by 'invasive species' living in the forest. They are rigorously eradicated even in the so called 'core zones' of the forest where wandering off the designated paths is, otherwise, strictly prohibited. By visiting the core zone and spotting 'invasive species' on the way, the participants will have the opportunity to get a glimpse on manifest consequences different intellectual perspectives on anthropogenic movements of animals and plants around the world have on a local ecosystem.

In the afternoon, we round up the workshop with a panel discussion on how our academic research relevant for contemporary challenges can have an impact not just within but also outside of academia. To do so, we are inviting panellists familiar with working both in academia and

in positions where academic knowledge is applied. The challenge of how to deal with a world where more and more plants and animals are and will be on the move due to climatological upheavals concerns ever more stakeholders as well as the public. Therefore, we open the panel discussion to a public audience, in order to disseminate research results and provide a space for the exchange of ideas that need not be restricted to academic origin and are informed by practical experience.

Bibliography

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Crutzen, Paul J. / Stoermer, Eugene F.: The 'Anthropocene', in: Libby Robin / Sverker Sörlin / Paul Warde (eds.): The Future of Nature. Documents of Global Change, New Haven, London 2013, pp. 483-485 [Original from 2000].

Elton, Charles S.: The Ecology of Invasions by Animals and Plants, Springer: Cham, 2020 [Original from 1958].

Shinozuka, Jeannie N.: Biotic Borders. Transpacific Plant and Insect Migration and the Rise of Anti-Asian Racism in America, 1890–1950, The University of Chicago Press: Chicago and London, 2022.

Simberloff, Daniel: Invasive Species. What Everyone Needs to Know, Oxford University Press: New York 2013.

Thomas, Chris D.: Inheritors of the Earth. How Nature is Thriving in an Age of Extinction, Allen Lane: London, 2017.

Scholars (especially early career scholars) interested in presenting a paper on the first day of the workshop are invited to send an abstract of 2000 characters (with spaces) as well as a short notice on affiliation by August 31, 2024 to Quentin Sintès (ETH) at quentin.sintes@gmw.gess.ethz.ch and Camille Schneiter (UZH) at camilleelisabeth.schneiter@uzh.ch.

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