

Master Thesis Project

Shipping routes and biological invasions on the sub-Antarctic islands

As a part of ongoing research on biological invasions in cold environments a MSc thesis project is available on the reconstruction of historical and recent ship connections between the islands and the rest of the world and their relationship with the colonization of the islands by non-native species. The main aims of the master thesis will be

- To quantify the connectivity of the islands to different regions of the mainland (ideally countries and sub-country regions in case of larger countries) and its change over the last ca. 150 years
- To compare the effect of this connectivity to the effect of climatic suitability onto the likelihood that non-native species have colonized the island

Tasks of the master student

- Together with the PhD working on the project – screen documents, especially harbour protocols and extract shipping connections
- Create a connectivity network and its change over time from these data
- Perform a statistical analysis that disentangles the role of connectivity and climatic suitability for non-native occurrence on the islands. Information on climatic suitability will be provided by the PhD/project team

The work is part of the research project ASCIS (<https://www.coldregioninvasives.com/the-asics-project>). The master student will collaborate with PhD student Tom Vorstenbosch and the other project team at the Department of Botany and Biodiversity Research (Franz Essl, Andreas Gatringer, Bernd Lenzner, Dietmar Moser, Johannes Wessely). The thesis will be supervised by Stefan Dullinger.

The thesis project is suitable for MSc students in ecology, conservation biology or environmental sciences

Interested? Please contact Prof. Stefan Dullinger (stefan.dullinger@univie.ac.at)

