



SCAR Fellowship Report



Ant-ICON | SC-ATS Science-Policy Fellowship



Name of Fellow:

Lucia Ziegler (PhD)

Position: Associate Professor

Affiliation: Department of Ecology and Environmental Management. Eastern Region
University Centre, University of the Republic

Country: Uruguay

Email: lucia.ziegler@gmail.com / lucia.ziegler@cure.edu.uy

Dates of Activity

May 27th to June 6th 2023

Introduction

The Ant-ICON/SC-ATS Science-Policy Fellowship offered a unique opportunity to actively approach the stewardship and management of the Antarctic continent and the Southern Ocean. Antarctica's uniqueness is well recognized in its environmental, scientific, historic and aesthetic values. But its governance is also unique, and is probably one of the best examples of (scientific) evidence-based policy application. As a researcher, the opportunity to match my scientific interests with the possibility to actively contribute to Antarctica's environmental management.

Specifically, I have been working on a project to assess soundscape composition and the incidence of anthropogenic noise in terrestrial Antarctica since 2019.

Although there is growing evidence of the many effects anthropogenic noise can have on wildlife and ecosystems worldwide, our knowledge of its incidence and extent in Antarctica is comparatively poor, and particularly so in terrestrial environments. Making this topic visible to Antarctica's stakeholders is thus crucial to prevent, manage or mitigate any possible negative effect on the continent's values of protection.

The Fellowship aimed to facilitate my active participation in Antarctic policy forums (CEP/ATCM meetings), empowering and encouraging me to contribute to discussions and gain valuable experience, potentially leading to the submission of science/policy papers based on their research. Once I received the formal communication of having been awarded the Fellowship, I was assigned two Mentors: Kevin Hughes (British Antarctic Survey, Ant-ICON member) and Alvaro Soutullo

(Universidad de la República, Uruguay; Ant-ICON Deputy Chief Officer), while Susie Grant, Chief Officer from the Standing Committee on the Antarctic Treaty System acted as my link to SCAR.

During the months before the CEP/ATCM meetings, we held several online meetings and had regular e-mail contact. These meetings were mainly in order to guide me and support my work in the preparation of an Information Paper to be submitted to the CEP. But Kevin, Susie and Alvaro also shared their knowledge and experience with respect to CEP/ATCM procedures.

Because the Fellowship expected my participation in the CEP/ATCM meetings as part of the SCAR delegation, I had the opportunity to engage in preparatory instances with the rest of the SCAR delegates.

Fellowship Outcomes

The most evident outcome of my Fellowship was IP 100, entitled "Anthropogenic noise in Antarctic terrestrial environments", and its subsequent presentation during the CEP. The document received good support and feedback from several Parties' representatives. Also, presenting an information paper on the topic of my Antarctic research line allowed for networking opportunities that would otherwise be difficult to achieve.

Besides, participating in both the CEP and ATCM meetings, and doing so as part of the SCAR delegation allowed me to better understand the underpinnings of Antarctic policy and management strategies and issues. As a person trained in science and used to speak to peer scientists, the exercise of sharing scientific information with stakeholders implied not only using plain language, but mainly framing the questions

and findings in a way that the project's links to policy-making are highlighted. Such skills, although highly valuable, are not often encouraged in researchers. In this sense, I feel I have gained valuable experience for my future work in Antarctica and elsewhere.

Publications, Presentations and Products

As a result of my participation in the CEP/ATCM meetings as Ant-ICON / SC-ATS Fellow, a manuscript was submitted to Polar Research (currently under review). There is also a second manuscript under preparation, that should be ready for submission by early October.

Capacity Building, Education and Outreach Activities

The Fellowship experience gave me and the project a strong impetus, manifesting in several activities.

During my stay in Helsinki, I had the opportunity to get in contact with researchers from the Nordic Soundscapes Research Network, with whom we are in contact and exploring possibilities of cooperation in Polar soundscapes research.

Back in Uruguay, I have engaged in educational/outreach activities, such as a public lecture in Torres de la Llosa Natural History Museum (Montevideo). I have submitted my intention to participate in the Iberoamerican Researchers' Night, to be held in Montevideo's Planetary, in late September, to present my experience doing research in Antarctica, from which the Fellowship is also part.

Lastly, I have applied to be considered a member of Uruguay's national SCAR committee. I understand the importance of having a strong National Committee on Antarctic Research in Uruguay, that promotes scientific research in Antarctica.

Future Plans and Follow-ups

My followings steps include continuing with my research in Antarctic soundscapes and monitoring anthropogenic noise, but the plans are to expand monitoring sites and environments. In the next Antarctic summer campaign, I am planning to start monitoring the soundscape in the vicinity of Uruguay's Elirichibehety Station (Hope Bay, Antarctic Peninsula). I have also established partnership with other projects working with penguin ecology on Ardley Island, to monitor underwater noise in Maxwell Bay, in order to explore the possible links between noise sources and levels, and penguin feeding ecology and habitat use. Lastly, we will start collaborating with other groups conducting long term research in Ardely Island, in order to share data and supplement the available data for ASPA 150.

In this line, I am involved in two Working Groups recently created in Uruguay. One it the "Environmental Monitoring Group". During the last CEP meeting the Committee agreed to establish an Intersessional Contact Group (ICG) to start working towards

an international framework for environmental monitoring. Uruguay will be the convener of this group. The other is the “ASPA 150 Group”, working on the update to the management plan for Antarctic Specially Protected Area (ASPA) No. 150, Ardley Island.

Personal Impact

Having been a beneficiary of the internship allowed me to deepen my connection with the Antarctic continent. The experience of preparing an information document related to the theme of my research project to be presented to the CEP enabled me to develop a broader understanding of my research topic and the role of Antarctic research in general. In this sense, I can now make better informed decisions of how to invest myself in the future, and how and where I could better contribute to Antarctica’s science and management.

Having experienced formal participation in CEP and ATCM meetings, as well as informal exchanges with various representatives from attending parties, gave me the opportunity to better comprehend the governance and management of the Antarctic continent and the Southern Ocean. It also allowed me to gain a more in-depth understanding of the roles played by different actors in this context.

Acknowledgements and References:

I would like to thank my Fellowship mentors, Kevin Hughes and Alvaro Soutullo and Susie Grant for their guidance, support and valuable inputs throughout all the stages of the Fellowship. I would also like to thank the SCAR delegation to the XXVth CEP/ XLV ATCM for welcoming and encouraging my participation and contributions.