TAMANI: Designing an improved network of long-term monitoring sites for arctic vertebrates: towards a better involvement of local communities through participatory science programs

Call: Arctic Observing and Research for Sustainability
Type of Project: Type 1 - Small Collaboration Grant
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The arctic environment is changing at an alarming rate and it is essential to understand the consequences of such changes on arctic biodiversity. Long-term monitoring programmes of key arctic species are the backbone of scientific research aiming at studying these ecological consequences. The Circumpolar Biodiversity Monitoring Program of the Arctic Council recommends that such monitoring should be conducted and coordinated at a pan-arctic scale, and should involve indigenous participants. However, these monitoring programmes are still mainly operated by national research institutions, with a very uneven distribution of study sites across the Arctic and little involvement of local communities. In this context our project will handle the following key questions: What is the best, most efficient survey design for pan-arctic monitoring? Are current monitoring plans adequate, and how can they be improved? How can participatory citizen science best contribute to pan-Arctic long-term monitoring? What are the current participatory initiatives, and how can they be improved? The TAMANI project will focus on land vertebrates and seabirds which are acknowledged indicator species of arctic change and emblematic species for local communities. Using interviews of representatives of institutions funding arctic research and of representatives of arctic communities, the team will assess their perceptions and expectations of pan-arctic, long-term participatory research activities on land vertebrates and seabirds. Further, TAMANI collaborators will use pan-arctic data on existing monitoring programmes of land vertebrates and seabirds to test the hypothesis that this network of monitoring sites is unevenly distributed relative to environmental gradients. These analyses will allow the team to propose a revised, ecologically sound network of key monitoring sites for land vertebrates and seabirds that allows the most efficient study of these key species on a pan-arctic scale while fully involving local communities in participatory citizen science programmes.