



The Arctic Institute of North America Presents the 2014-2015

Arctic Speaker Series

Cold-adapted biodiversity in changing landscapes - a tripolar perspective



Who: Dr. Gabriela Ibarguchi

'Eyes High' Postdoctoral Associate
Arctic Institute of North America
University of Calgary

Date: Wed., March 18, 2015

Time: 4 – 5 p.m.

Place: University of Calgary,
Science B 142

Over one-third of Canada's land mass is found in the cold latitudes of Nunavut, the Northwest Territories and the Yukon. Yet, the Canadian and circumpolar Arctic, beautiful, harsh and remote, remains largely unexplored, with many species and ecological processes still understudied. Our knowledge of Arctic biodiversity and ecosystems is growing rapidly, partly driven by the need to improve our ability to monitor and respond to changing environments and growing global development. But what lies at the heart of adaptation and resilience, and how might species and communities respond to rapid change? How is the Arctic connected to other cold regions including Antarctica and alpine areas and why do these connections matter?

In this presentation, an overview of the 'Three Poles' (the Arctic, Antarctica, and global mountains), and the biodiversity within them, will be provided. Examples will illustrate how these cold regions are connected globally, and how these regions are among the most vulnerable to change on Earth. From genes to extreme adaptations, examples will highlight how biodiversity has evolved to cope with harsh conditions, and what may be at stake for species, ecosystems and human communities under future environmental change scenarios.

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For more information, phone 403-220-7515, email: arctic@ucalgary.ca

visit: www.arctic.ucalgary.ca



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Bio: Dr. Gabriela Iburguchi joined the Arctic Institute of North America in July 2014 as an 'Eyes-High' Postdoctoral Associate and as Associate Director of the International Study of Arctic Change (ISAC). Currently, she is also serving as the lead for the Bird Expert Team of the Terrestrial Steering Group of Circumpolar Biodiversity Monitoring Program, CAFF, Arctic Council. She is also serving as a board member and mentor in APECS Canada (Association of Polar Early Career Researchers). Gabriela spent the past two decades teaching and conducting research at Queen's University and in collaboration with Environment Canada. She has been studying the ecology, evolution and conservation of biodiversity in harsh environments, and working with Vicki Friesen and Tim Birt on waterbirds and Arctic seabirds. At Queen's, Gabriela has taught courses in Conservation Biology, Wildlife, and Marine Environmental issues in the Department of Biology and in the School of Environmental Studies, and Health Sciences modules in Canada and in Mexico with the School of Kinesiology and Health Studies. In Ottawa, she has taught Ornithology at Carleton University, and she has also worked on collaborative research with Environment Canada, particularly on Arctic seabirds with Anthony Gaston, and more recently, on Arctic terrestrial monitoring with Marlene Doyle.

Gabriela has conducted lab studies and field research particularly on avian ecology, biogeography and conservation genetics throughout the Americas, in polar, desert, marine and high altitude ecosystems. She is interested in the linkages between biogeography and conservation, evolution, and environmental studies as a way of interpreting the past and understanding future outcomes for biodiversity and the communities that depend on these species and ecosystems. She first experienced Arctic coastal regions while working on the behavior and population genetics of thick-billed murres on Coats Island, Nunavut, during her M.Sc. Studies at Queen's (M.Sc. 1998). She also completed her Ph.D. dissertation at Queen's in 2011, this time working on an Antarctic lineage now found in cold regions in the Andes, Patagonia and Tierra del Fuego - the seedsnipes, a strange, hardy family of shorebirds. Gabriela studied lacebugs and aquatic insects in Ontario during her undergraduate studies at the University of Toronto, Scarborough, where she first discovered biomonitoring, and the utility of complementing ecological studies with landscape and genetic analyses to uncover the behavior, population connectivity, and evolutionary history (and potential for adaptation) of species.

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