

BACKGROUNDER
CAFA DISTINGUISHED ACADEMIC EARLY CAREER AWARD, 2012
DR. GREGORY J. McDERMID

Dr. Greg McDermid, an Associate Professor in the Department of Geography, University of Calgary, has been chosen to receive the 2012 **CAFA Distinguished Academic Early Career Award**. The Award recognizes Dr. McDermid's outstanding contribution to the wider community beyond the academy through his groundbreaking research focusing on the application of remote sensing, GIS (geographic information systems), and other geospatial tools in the fields of wildlife ecology and environmental management.

Greg received his Ph.D. (Environmental Studies) from the University of Waterloo, with a doctoral dissertation entitled *Remote Sensing for Large-area, Multi-jurisdictional Habitat Mapping*. Since his appointment to the Department of Geography at the University of Calgary in 2005, he has been a leader in research into the application and development of geospatial technologies, and has undertaken a broad range of interdisciplinary research collaborations in such areas as wildlife ecology, biodiversity assessment, ecological monitoring, plant-phenology monitoring, and vegetation mapping.

Dr. McDermid's research program, funded by NSERC and Alberta Innovates Technology Futures, among others, is remarkable in its scope, and has involved more than 50 grad students, undergrad research assistants, post-docs, and visiting scientists over the past seven years. Greg is Co-Director, with Dr. Geoff Hay, of the U of C's Foothills Facility for Remote Sensing and GIScience, whose mission is to develop innovative solutions to pressing environment challenges, while training a new generation of geospatial scientists. Under the aegis of the Foothills Facility, Dr. McDermid and members of his Remote Sensing Group, for example, are working with the Alberta Biodiversity Monitoring Institute (ABMI) to develop methods and protocols for deriving much-needed information on habitats and the human footprint from remote sensing imagery, in support of Alberta's biodiversity monitoring obligations.

Another Alberta-based research project, to which Dr. McDermid and members of his team are long-term contributors, is the Foothills Research Institute Grizzly Bear Research Program, an interdisciplinary initiative whose list of collaborators includes the Universities of Calgary, Alberta, Saskatchewan and Waterloo. The aim of the program is to provide scientific knowledge and planning tools for land and resource managers to ensure the long-term conservation of grizzly bears in the province, and its impact has already been significant. Research on grizzly bear populations and habitat mapping played a key role in the designation of Alberta grizzly bears as 'threatened' in June 2010, the development and adoption of the province's Grizzly Bear Recovery Plan, and the designation of grizzly bear recovery areas along the foothills.

Dr. McDermid's other research activities include a project to map the distribution of endangered whitebark and limber pine in western Alberta, in order to clarify their role in Alberta's high-elevation ecosystems and predict the species' response to insects, disease and climate change; and an initiative involving the development of a landscape analysis and monitoring program for the Crown Managers Partnership, an international collaboration of managers and researchers focussed on the Crown of the Continent ecosystem in Montana, B.C., and Alberta.

In March 2011, Greg was one of five academic experts invited by the federal government to take part in a workshop designed to establish a remote sensing-based program for terrestrial monitoring in Alberta's oil sands region. This workshop has helped to lay the foundation for operational policies and research priorities over the next decade, and Dr. McDermid has been involved with a number of follow-up activities. He is in the midst of launching new multi-university project with the Energy Resources Conservation Board and Alberta Environment and Sustainable Resource Development designed to spearhead the transfer of remote-sensing technology to government regulators.

Dr. McDermid's publication record is extensive, running to no fewer than 92 scholarly journal articles, conference papers, and technical publications, as author or co-author, since he took up his appointment at the U of C. Greg McDermid was promoted to Associate Professor in 2011, and in recognition of his research achievements, was honoured with the 2011 University of Calgary Faculty of Arts Distinguished Research Award.