

Species at Risk and Habitat Studies (SARAHS) Circle

This document describes the Circle for the Centre for Species at Risk and Habitat Studies (SARAHS). We describe what we are, our mandate, the people and organizations involved, the ways SARAHS will benefit UBC-O and the needs we have for the centre before it can be an internationally recognized group.

What is SARAHS?

SARAHS (Species At Risk and Habitat Studies) is a newly developed centre consisting of OUC faculty and partners involved in conservation research. Recently, The Canadian Foundation for Innovation (CFI) has committed \$876,000 towards infrastructure for SARAHS. This amount was awarded in an extremely tight competition this spring, which saw only 22% of applications successfully funded. The British Columbia Knowledge Development Fund (BCKDF) will match CFI's contribution. In addition, contributions from vendors, the community and private sector will provide the balance of \$2.19 Million needed to initiate SARAHS. This funding will cover the construction of research space and the acquisition of modern high quality equipment, which is essential for cutting edge research in conservation biology. The equipment includes a DNA sequencer, molecular laboratory equipment, freezers, water systems and high performance computers.

What is the mandate of SARAHS?

SARAHS' mission is to identify and examine forces that are crucial to the success of species listed as currently at risk. These forces include genetic, environmental and physiological factors that impact upon plant and animal life in this region. Founded upon a highly interdisciplinary research team, the Centre has expertise in areas ranging from genetics and physiology through climate change to statistics and mathematical modelling. Thus, SARAHS researchers can provide a comprehensive picture of the scientific issues surrounding species at risk. The ultimate aim is to gather the knowledge necessary to inform management plans and land use policies.

Who is involved with SARAHS?

SARAHS has 18 dedicated faculty belonging to five different OUC departments, belonging to Biology, Mathematics and Statistics, Chemistry, Geography, and Earth Environmental Science. Supporting this dynamic group of researchers will be the South Okanagan Similkameen Conservation Program (SOSCP), Environment Canada, Parks Canada in Revelstoke, the University College of the Cariboo, FORREX, Ministry of Water, Lands, Air Protection (WLAP) and the Okanagan Nation Alliance. Financial contributions from partners have already been made for new hirings; for example, Environment Canada has funded a Post-Doctoral Fellow over a 5-year period, who will work with Karen Hodges, a newly hired conservation biologist and Canada Research Chair (CRC) nominee. Also WLAP has contributed \$100,000 to support the Canada

Research Chair. Nusha Keyghobadi is also a newly hired professor, who will be one of the key players of the centre. She uses a combination of field and molecular methods to address questions of significance to conservation biology. She is presently initiating studies on the comparative population genetics of butterflies of the Okanagan Valley, using butterflies as model systems for assessing relationships among the spatial distribution of habitats, species movement behavior, and genetic structure and diversity. Dr. Keyghobadi and Dr. Hodges have complementary research interests with each other and with many of the other faculty involved in SARAHS.

How will UBC-O benefit from SARAHS?

The centre will add research capacity to UBC-O by providing needed infrastructure for conservation researchers. The Centre will also provide outreach activities to inform and engage the community in the activities of SARAHS' researchers. SARAHS will enhance the capacity for UBC-O to collaborate and partner with government agencies and the community. SARAHS has enormous potential to become a valuable information resource for schools, businesses and individuals through publication of research reports, public seminars, access to the Centre's web page, as well as access to archived material, including whole organisms and DNA samples. Thus, SARAHS will be a catalyst for high calibre research and act as a springboard for public discussion about environmental responsibility. Thus, the centre will help UBC-O quickly attain international status as a research-intensive institution. The centre will also attract graduate students and will help UBC-O attain their goals with respect to graduate student enrollment.

What are the needs of SARAHS?

Although we have secured CFI money to build 5000 sq. ft of lab space for SARAHS, we will require that this area be located on the third floor of the Science Building or in a new building. We also require that the offices of SARAHS professors be located together, preferably next to the labs, so as to enhance collaboration and productivity. The facility was originally planned to occupy part of the third floor of the Science building, but these plans are now on-hold, until infrastructure plans are secured for the UBC-O transition. We are required by CFI to secure final plans on infrastructure (including buildings and equipment) by December 2004.

We anticipate at least 20 graduate students at any one time associated with SARAHS. Thus, accommodation of desk space for these students will be necessary. Meeting rooms are also needed for graduate students so they can meet with their committee and present their theses. Similarly, a seminar room is needed, where professors and graduate students can present new findings to the UBC-O and external community. It is expected that these spaces can be shared with other centres and Non-SARAHS departments.

In addition to CFI infrastructure money, we will be able to obtain operational money for the first 4 years of the centre. This money will go to hiring a technician, who will be involved with the use and maintenance of equipment. We will require 80 sq. ft of office space for this person. At least one director and their assistant will be needed for

SARAHs. The senior researcher will have experience with multidisciplinary programs in the area of conservation biology.

Conclusion

With the number and breadth of faculty involved, and the extent of collaboration and support throughout the BC Interior, SARAHs is well positioned to be a key player in the vision of UBC-O as a distinctive research-intensive university serving the BC Interior, as well as national and international conservation concerns. SARAHs is poised to contribute to placing UBC-O on the map as a world-class academic institution by providing a multidisciplinary centre addressing important societal issues.