RESEARCH SPOTLIGHT: FACULTY OF ENVIRONMENT

SFU’S FACULTY OF ENVIRONMENT (FENV) IS THE ONLY ENVIRONMENTAL FACULTY IN WESTERN CANADA AND HAS EIGHT RESEARCH INSTITUTIONS/RESEARCH CENTRES.

COVID-19 RELATED PROJECTS

School of Resource and Environmental Management professor Sean Markey led a series of surveys funded by the Canadian Rural Revitalization Foundation to support rural recovery and resilience after COVID-19. This research will help create rural specific policy responses to the pandemic.

Department of Geography professor Valorie Crooks and researcher Nadine Schuurman received an $86K grant from the Michael Smith Foundation for Health Research as part of their COVID-19 Rapid Response Funding. Working alongside health officials, they will create maps showing where people are experiencing challenges in accessing health care, where people are vulnerable to developing COVID-19 infections and where individuals are experiencing secondary health-related impacts stemming from the pandemic.

A Social Sciences and Humanities Research Council of Canada (SSHRC) Partnership Engagement Grant was given to School of Resource and Environmental Management (REM) professor Zafar Adeel and assistant professor Tammara Soma. This grant totaling $25K in funding is for their COVID-19 – Nutrition through Engagement and Agricultural Technologies (N-EAT) project. Working with the Kitasoo Nation in Klemtu, they will develop food, water and energy resilience strategies for the community.

NATIONAL AND GLOBAL RANKINGS

In the 2020 QS World University Rankings, two FENV departments ranked in the top 10 in Canada and within the top 100 globally. SFU’s Department of Archaeology ranked 2nd in Canada and 26th in the world. The Department of Geography ranked 3rd in Canada and placed within the top 100 worldwide.

ENGAGING COMMUNITY RESEARCH PROJECTS

Department of Geography professor Nicholas Blomley, one of the founders of legal geography, is currently researching how the law relates to property and the frequent oppressive effects of legal relations on marginalized and oppressed people. Recently as part of a national project, Blomley and the team examined how courts use spatial restrictions when releasing people on bail and probation. This study exposed how these ‘red zones’ punish the poor, generate crime and are illegal. Over this past summer, this was cited in a Supreme Court of Canada case and is now influencing sentencing.

Dana Lepofsky from the Department of Archaeology worked with the Heiltsuk Nation in 2018 to develop an interactive website that shares their language, connection to the land and their ancestors. Lepofsky is now collaborating with the Heiltsuk Nation and the Vancouver School District to develop and implement a curriculum guide for teachers in K-12 classrooms on how to use the website to learn from Heiltsuk ancestors about cultural and ecological stewardship. This research and subsequent teaching guide...
changes how we think about First Nations history, contributions, and shows how we can learn from Indigenous people to create a more sustainable future.

REM professor Anne Salmon and postdoctoral fellow Danielle Denle’s research during the COVID-19 pandemic, led to the researchers providing innovative virtual training on the collection of field data to the Coastal Guardian Watchmen. Salmon and Denle are currently investigating the prevalence of bryozoan in partnership with four Central Coast First Nations. They will also be training the entire community on how to participate in citizen science by taking photographs of kelp through an app while they are out harvesting this and other important marine resources, which allows for data to be captured and shared remotely with the research team.

**CANADIAN FOUNDATION FOR INNOVATION (CFI) AWARDS**

REM professor Frank Gobas received a $76K from CFI, with an additional $114,747 in further funding, to lead a liquid chromatography-mass spectrometry project. The new scientific knowledge this project generates will be used to expand the identification of hazardous substances and improve environmental regulations controlling the use of chemicals in commerce.

Archaeology’s Hugo Cardoso received a $52K grant for his project that will improve upon existing methodologies and technologies for analyzing materials. The project will create permanent virtual repositories of skeletal remains.

CFI gave Archaeology’s Rudy Reimer $84K in funding to purchase valuable equipment to improve the examination of archaeological samples that will allow less disruption when analyzing sensitive cultural materials.

**SPECIAL AWARDS**

In the spring of 2020, Department of Geography’s Kirsten Zickfeld was named as an SFU Distinguished Professor of Climate Science. REM’s Frank Gobas was also named as one of SFU’s Distinguished Professors.

In May 2020, Nicholas Blomley joined SFU’s Community Engaged Research Initiative as a Researcher-in-Residence. The Researcher-in-Residence program supports and promotes SFU faculty members actively practicing community-engaged research.

**FUNDING HIGHLIGHTS**

Over the last year, FENV researchers received over $1,082,720 in SSHRC grants. The projects funded by these grants include several projects in the Departments of Archaeology and Geography, as well as one from the School of Resource and Environmental Management.

The Natural Sciences and Engineering Research Council (NSERC) gave SFU Department of Geography professor Lance Lesack a total of $195K as part of their Discovery Grants. This funding went towards his project entitled Limnology and Biogeochemistry of Arctic Delta Lakes.

**ANNUAL ENVIRONMENTAL STEWARDSHIP CHALLENGE**

This fall in light of the COVID-19 pandemic FENV moved its annual stewardship challenge to virtual activities. The challenge builds monthly awareness about pressing issues and aims to inspire positive change. Students, staff, faculty and alumni will share how they are building food security in September, improving social justice in October, and working on zero waste in November at personal and collective levels, and through research activities.