



February | Kim Juniper, Biological Oceanographer

What do you do?

I study the ecosystems of the deep sea. Most recently my lab has been working in two areas. 1) We are studying the biodiversity of bacteria that live in different habitats around deep-sea hot springs. 2) We are also developing new techniques for monitoring deep-sea ecosystems using cameras connected to underwater observatories.

Why is it important?

The deep ocean is the largest and most poorly known ecosystem on the planet and so far, has been the least affected by human activities. That situation is changing as resource exploitation moves into the deep sea, and as climate change affects the food supply to the deep ocean. It is critical that we learn more about deep-sea ecosystems now, so that we can manage them responsibly in the future.

What does your research involve?

I go to sea on research vessels equipped with remotely-operated submersibles. We use these submarines to collect samples and video and photo imagery of the seafloor. Back in the lab we use cloning and DNA sequencing to identify deep-sea bacteria, and analyze imagery to create maps of habitat on the seafloor.

We've also started to use cameras and instruments connected to the VENUS and NEPTUNE undersea observatories. These instruments are connected back to the university by underwater cable. We are able to remotely operate the cameras and study the activities of organisms living on the seafloor to understand how they react to changes in their environment.

What got you into ocean science?

When I was going to school in Saskatchewan, far from the ocean, I was strongly influenced by the documentary films produced by Jacques Cousteau. By the time that I was a teenager, I was certain that I wanted to study marine life.

Did you ever want to be something else?

I enjoy musical theatre and have always imagined a life as a "song and dance man" on Broadway.

What do you like most about your work?

Being in the field, observing an unknown ecosystem and trying to figure out how it works. With the NEPTUNE and VENUS observatories, I can now go into the field everyday, in a virtual sense.

What are three achievements in your life you are proudest of?

My two children, a scientific paper that I published about fossil bacteria, and my new group of graduate students.

What was your first summer job?

My first summer job was teaching swimming in a small town in Alberta where swimming lessons were given in a flooded gravel pit that had cold dark water and several garter snakes that would occasionally swim through my class.

What 5 favourite artists/groups/pieces of music do you listen to on your ipod?

John Coltrane, Jesse Cook & Melissa McLelland (It ain't me babe), The Waterboys, Hawaiian Slack Key Guitar Masters Collection, La Bottine Souriante

What's your favourite colour?

Fuschia

How do you get to work every day?

Half the time I walk and take the bus, half the time I drive.

What are your favorite things to do when you aren't working?

Skiing, walking anywhere (in the city, in the country, in the wilderness), reading classic novels

If you could meet one famous person for coffee who would it be?

Louis Armstrong

Why are you here at UVic?

To have the pleasure of working at a true oceans university.

What 5 words would you use to describe yourself?

Patient, Impatient, Tireless, Diplomatic, Unselfish



To learn more about Kim Juniper
visit: <http://seos.uvic.ca/people/juniper.htm>

