

Syllabus: 6th Annual BC Native Bee Course

Lead instructor: Lincoln R. Best, co-instructor: Bonnie Zand

Coordinator: Marika van Reeuwijk

June 15-18, 2023

OR

June 17-20, 2023

Course Description:

This course offered by the Native Bee Society of British Columbia is designed for mature participants with a broad range of interests related to native bee biodiversity, ecology, taxonomy, identification and research. Lab instruction consists of lectures, discussions, and observing native bee specimens using microscopes. Lectures cover a broad spectrum of content from taxonomy and identification, to conservation and floral relations. Field instruction consists of an introduction to field methods including sampling methods and design, and the opportunity to collect, photograph and observe many native species foraging and nesting. Participants will be expected to walk 1-2 km on and off trail over uneven terrain. Field and lab equipment are provided.

What to expect:

Lab Component

Each day in the lab will be divided into a morning and afternoon session. Each session will begin with a lecture and be followed by a microscope session where participants are able to examine the bee genera of BC using identification keys and other resources according to their skill level. The sessions are: Day 1 *Bombus* and short-tongued bees (Halictidae, Colletidae, Andrenidae, Melittidae), and Day 2, the long-tongued bees Megachilidae and Apidae. Microscopes and literature, including field guides and other resources will be provided. Participants are encouraged to bring a laptop or tablet (wifi available), and a notebook. Individuals with their own collections are strongly encouraged to bring them to work on with assistance from the instructors.

Field Component

Two sites nearby one another will be visited on subsequent days. These sites host some of the greatest native bee biodiversity in Canada and participants should anticipate observing 50-100 species and many genera. Basic entomological equipment will be available for use including nets and vials. Participants are welcome to bring their own equipment and tools. The field days will include lectures about field methods, study design, bee biology and equipment, as well as guided walks and the opportunity for personal collection and observation. A large nesting aggregation of native bees is accessible for study. Participants will be expected to arrange transportation to the field sites located nearby Oliver, BC. We will help coordinate a carpool among participants. The field site is 40km from Penticton.

What you need to bring:

Lab Component

Laptop or tablet. Notebook and writing utensils. Lunch. Personal entomological collection.

Field Component

Appropriate footwear and clothes including a wide brim hat and sun protection. There is always the

possibility of rain. 2 liters of water and lunch. A camera, small notebook, and pencil. Forceps, hand lenses and other equipment are valuable tools.

Note:

Participants can expect this short 4-day course on native bees to be intensive and challenging. There is an incredible diversity of bee genera and species that visit thousands of flowering plant species in western Canada, and it takes many years to become familiar with their names and appearance. We can accommodate all levels of knowledge from enthusiastic amateurs through professionals and academics. Graduate students will find this a valuable opportunity to receive guidance on collections and project management, and specimen identification strategies. The course has historically attracted an incredible and growing community of scientists, both amateur and professional, who have collaborated on many projects over the last several years. This is a great opportunity to network with passionate people from western Canada, the northwestern US, and beyond.