ConGen2: Landscape Genomics & Genetic Monitoring

Applications of Next Gen Sequencing to Understand Connectivity, Adaptation, and Environmental Influences on Genomic Variation

5 Sept - 10 Sept. 2016, Flathead Lake Biological Station, Montana
Early bird application deadline: 15 June 2015

**Objective:** To provide training in conceptual and practical aspects of data analysis of population genetic data sets, with emphasis on applications. Emphasis will be on next generation sequence data analysis (RADs, sequence capture, and whole genome sequence analyses) and interpretation of output from recent statistical approaches and software programs. The course promotes daily discussions between early-career participants and expert researchers to help develop our next generation of population geneticists and to identify developments needed to improve data production and analysis approaches.

**Who should apply:** Advanced undergrads, graduate students, post-docs, faculty, and population biologists with at least 1 semester university level course in population genetics. Applicants must have a basic background in population genetic data analysis, including testing for Hardy Weinberg proportions and gametic disequilibrium. Participation is limited 25-30 students allowing efficient instruction with hands-on computer exercises. Priority will be given to persons with their own data to analyze.

**Course/Workshop format:** For each subject (see web page), we provide 20-40 minutes of background, theory, discussion, and introduction to concepts. Immediately following, we conduct data analyses together for 30-90 minutes using relevant software programs and real data sets and worksheet handouts. PowerPoints (and videos) of each instructor’s lecture will be available to participants on the course web page. Extensive exchange of ideas and learning is promoted by evening hands-on computer sessions and lodging together on the spectacular and remote Flathead Lake campus.

**Location:** The course will be held at the beautiful Flathead Lake Biological Station near Glacier National Park (see/click ‘Location’ at http://www.umt.edu/sell/cps/congen/). The Glacier Park International airport is 65 kilometers north of the Biological Station (see www.iflyglacier.com/).

**Application and cost:** See http://www.umt.edu/sell/cps/congen/. Cost: $US1,300 per person (plus $300 late fee if payment after 1 July). This will cover all meals, lodging, materials, transportation to and from the airport, and a boat cruise on the FLBS research vessel “Jessie B”. Two credit hours (equivalent to a semester graduate course) are available from the University of Montana. A reduced-cost scholarship may be available to 1-2 candidates showing need. Final Deadline to apply: 5 July 2016.

**Instructors**
Fred Allendorf  
Tiago Antao  
Tabatha Graves  
Brian Hand  
Paul Hohenlohe  
Marty Kardos  
Gordon Luikart  
Garret Mckinney  
Mike Miller  
Brice Starver  
Alisa Wade  
Robin Waples  
Diane Whited  
Andrew Whiteley

**ConGen 2006**

**ConGen 2013**