

Biomes of Glacier: A Natural History Overview
Instructor: Denny Olson, M.S.
Sunday, August 30 - Tuesday, September 1, 2020

Glacier National Park is spectacular for many reasons, but the emphasis in this course will be “how all those reasons fit together”, for example, the ecological relationships between fungus and forest, nutcrackers and grizzlies, climate and Glacier’s alpine – and the odd, fascinating, but nearly unknown species of plants and animals in the Park. With day hikes on the East Side, West Side, and Top Side, we will examine Glacier’s fine-tuned ecology -- the real “story behind the scenery”. This class is an intensive, on-site overview of the Park, with an emphasis on the “bet-you-didn’t-know!” stories from a 45-year teaching naturalist.

*Note: Meals will provide from **dinner on day 1** through a **trail lunch on day 3**. In addition 2 nights of lodging at Field Camp are included in the course fee. If you do not require lodging, call the registrar at 406-755-1211 to subtract \$32/night from your course fee at the time of booking.

Meeting Place: Glacier Park Field Camp Meeting Hall (see campus map).

Meeting Time: Sunday, August 30th, 8:00 AM.

Tentative Itinerary (subject to change):

Day One: Westside, Wetside

- Meet at 8:00 AM, brief introductions and orientation, course overview
- Drive to McGee Meadow on the Inside Road to learn about fens and bogs.
- Short hike to Johns Lake. Here we will learn about the “little bog of horrors” and pioneer rainforests.
- Trail of the Cedars (fungus and forest; swift accommodations; cancer cures)
- Avalanche Lake Trail (valley of NO fire; log cities; power of ice; Oregon dirt)
- Dinner at Field Camp
- Evening Presentation: The Spectacular Birds of Glacier – with special guest Professor Avian Guano, Bir.D. (Clown ducks, ouzels, camp robbers, woodpeckers and fire, etc.)

Day Two: Life at the Top

- Breakfast
- 7:30 AM : Leave for Siyeh Bend on Going to the Sun Road (stop for the oldest recorded life in prehistory, hardrock café geology in the bus)
- Hike to Preston Park (Whitebark pine keystone: grizz, squirrels, nutcrackers; living in the subalpine world)
- Lunch overlooking ‘half of Montana’ (plant survival strategies in the alpine)
- Return hike: (climate, glaciers and the disappearing alpine – Timberline sparrows, ptarmigan, rosy finches and wolverines)
- Return, and dinner at Field Camp
- Evening presentation: Glacier’s Little-known and Seldom-seen (alpine frogs, toads and fire, boreal boas)

Day Three: Eastside Windy Parklands

- Breakfast
- 7:30 AM : leave for East side on Hwy 2
- The newly discovered under-riverbed world
- Marias Pass stop (the 300 X 50-mile all-time world record bulldozer!)
- Hike to base of Firebrand Pass (Glacier's fish – mega-messing with Mother Nature; beaver behavior, wind and where trees live; grizzlies-huckleberries-moths-lilies-and- ladybugs – the 'Paleo-diet'; a “krummy” place to be a pine)
- Return hike (the magical physiology of bears; taking a “lichen” to primitive plants; picky butterflies and other endangered species; the value of “quiet”; maybe a moose?)
- Back to Field Camp (The “Big Picture”, good-byes)

Food: Meals will provide from **dinner on day 1** through a **trail lunch on day 3**. Meals will be Breakfast is continental style (e.g. oatmeal, yogurt, cereal, fruit, hardboiled eggs, bagels) and dinner is family style (e.g. garlic chicken pasta, burrito night, spaghetti night); lunch fixings (e.g. sandwich fixings, carrots, apples, trail mix, chips) are provided for each participant to prepare their own lunch to eat on the trail. Vegetarians can be accommodated. Upon request we can provide gluten free bread for lunch, gluten free pasta, corn tortillas. If you have specific dietary needs please get in touch with us upon signing up. We can figure out what we provide and if you should bring any items to supplement what we provide.

Required Equipment: (all seasons)

Course Equipment: Binoculars are useful, but optional, as well as field guides that interest you.

Weather: This course will not be canceled due to weather.

Physical Requirements: Moderately Difficult. The elevation gains on four hikes range from 500 to 2000 feet.

Transportation during course: We will be traveling in a Glacier Institute vehicle.

Accommodations: Additional lodging can be purchased for \$35/person/night at the Glacier Institute Field Camp. Facilities include bunkhouses, a community bathhouse, a library and a kitchen. Please call the registrar at 406-755-1211 to book lodging.

Academic Credit: Please see our '2020 Academic Credit' Link on our website to learn about OPI credit and FVCC and UM credit for our courses. There is a \$20 administrative fee to receive OPI renewal units with FVCC.

Recommended Reading:

Glacier National Park Website, Nature and Science (written by Instructor, Denny Olson)
<http://www.nps.gov/glac/naturescience/index.htm> (click on all the sub-categories) GLACIER: A Natural History by David Rockwell.