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Flathead Lake Biological Station

1901

Biological Station Summer Session, 1901

University of Montana (Missoula, Mont. : 1893-1913)

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Recommended Citation

University of Montana (Missoula, Mont. : 1893-1913) and Flathead Lake Biological Station, "Biological Station Summer Session, 1901" (1901). *University of Montana Bulletin: Biological Series: Biological Station Summer Session, 1899-1974*. 3.

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University of Montana Biological Station

LOCATED ON FLATHEAD LAKE

Post Office, Holt, Flathead Co., Mont.

ANNOUNCEMENT FOR THE SUMMER, 1901.

The Biological Station of the University of Montana was established in 1899, for the purpose of offering to the students of the University and to the teachers and students of the State an opportunity for study, collection, investigation and recreation during the summer. By providing the best facilities the state can afford, and making the instruction free to all, the summer work at the Station presents exceptional opportunities for study, and every encouragement is given to those attending to have both a pleasant and a profitable time. The situation of the Station on the largest fresh water lake in the Northwest makes possible a study of inland and cold water life not presented at many localities.

STAFF OF INSTRUCTORS.

Morton J. Elrod, Prof. of Biology, Univ. of Mont., Director.
Dr. D. T. MacDougal, New York Botanical Garden, Botany.
Mr. R. S. Williams, New York Botanical Garden, Ferns and Mosses.
P. M. Silloway, Prin. Fergus Co. High School, Orinithology.
Maurice Ricker, Prin. High Schools, Burlington, Ia., Nature Study and Microscopical Technique.

LOCATION.

The field laboratory is located on the bank of Swan River at its outlet into Flathead Lake. This location affords a fine harbor for boats, and a good camping site for the tents of those attending. The adjacent region contains forests, ponds, lakes, swamps, cultivated fields, mountains, rivers, and ravines. It is rich in animal and vegetable life. The lake offers rare opportunities for collecting, and has some of the best scenery in the State. East of the lake the Mission range comes abruptly to the water's edge. The range slopes from the Swan river on the north to the high peaks, ten thousand feet, at the southern end, and its scenery is wild, rugged and grand, truly Alpine in character, and rivaling the Alps in the beauty and magnificence of its scenery. West of the lake are the Cabinets. Near the Station Swan lake, Mud lake, Echo lake, and other waters, are easily accessible. Daphnia pond, a few minutes' walk from the Station, is rich in pond life, while Estey's pond, about as far again, is fully as productive. Across the road from the Station is a store,

which supplies all the necessaries of life. The works of the Kalispel Electric Light Company across the river supply power for the city of Kalispel. The hotel a few rods away, owned, by Mr. E. L. Sliter, affords an excellent place to secure the comforts of life. The Kalispel club grounds are across the river, with several buildings. It is about two and a half miles to the mouth of Flathead river, eighteen miles to Kalispel, six or eight miles to O'Brien's large lumber mill, and eight miles to Swan lake.

EQUIPMENT.

The Station is in possession of three boats for use of students. A gasoline launch, Missoula; a 16-foot wood row boat, Culex; and a 14-foot canvas boat, Daphnia; the latter for use when it is necessary to transport a boat. The building is a convenient out-door laboratory, with tables for a dozen students. There is a dark room for photography. Microscopes, glassware, books, and utensils will be supplied from the University.

A team and wagon, with driver, will be at the command of the station, insuring every facility for getting into the field by both land and water.

Botanical material, insect nets, pumping apparatus, and other collecting paraphernalia will be supplied.

COURSES OF STUDY

ZOOLOGY.

(a) Laboratory and field work, including dissection or microscopic study of type forms, with field work and instruction in collecting and preserving material for laboratory use and permanent collections.

(b) Field and laboratory course in entomology. Instruction in collecting, preserving and labelling insects. Dissection and study of type specimens.

(c) Course in Ichthyology, devoted particularly to lake fishes, their habits and food.

(d) A course in plankton methods. Collecting of microscopic organisms, determination of quantity, examination of material.

(e) Ornithology. A study of birds, with methods of collecting, making and preserving skins; habits and lives of birds of the rich avian region adjacent.

BOTANY.

(a) Laboratory and field course; study of type forms. The course will consist of collecting trips in the field where common species of the different orders are found, classification of the more common species, study of structure, with methods of preservation, both dry and in liquid, for immediate and permanent use.

(b) A study of plant relations to environment, as illustrated by the varied conditions of the region; relations of climate and vegetation.

(c) Laboratory course, work to be arranged.

Photography. Instruction will be given to all those desiring it. Students in photography will furnish their own cameras and plates or films.

METHODS OF INSTRUCTION.

The work will consist very largely of field collecting and observation, study of relation to environment supplemented by laboratory dissections and microscopic examination. The general courses will enable teachers to familiarize themselves with methods of field work, and give a store of information from which to draw in nature study subjects. The general courses also give opportunity to students and others to pursue lines of study with better facilities for out door work, with fresh material, than is generally to be had in regular university work. For this work students may receive credit on regular university and preparatory courses which are an equivalent.

Five days in the week will be devoted to laboratory and field work. The sixth will be given up to excursions. Sunday will be a day of rest. For the past two years it has been the custom at the Station to have campfire discussions. These have proven helpful and valuable, and will be continued.

The New York Botanical Garden will cooperate in the botanical work of the Station. Dr. D. T. MacDougal, Director of the Laboratories in that institution will join the party in the field for the purposes of making collections, and pursuing some investigations upon the relations of climate and vegetation, and will continue both lines of work at the Station; the botanical work during the session will be under his guidance. Attention will be given to general botany, and to the special features of the flora of Montana. Mr. R. S. Williams of the same institution, will spend the month of June in making collections in the northwestern part of the state, and will be present during a part of the session, giving especial attention to mosses and ferns.

RECREATION.

Many will wish to combine an outing with study. Fishing near the laboratory is excellent. There are many boats besides those of the Station, and rowing may be indulged in. The field is excellent for photography. Bathing in the lake is always a treat and the beach is fine. The region has an abundance of fruit of all kinds. The hills and forests afford quiet retreats for study or for strolls. Few places have more natural attractions. At the proper season hunting is good. Deer have been seen a few rods from the laboratory. Grouse and pheasants abound in the hills. In season duck shooting is fine. Most of the country affords good wheeling for bicycles.

FEES AND EXPENSES.

There are no tuition fees. Students attending will be charged for material consumed, for breakage, for a share of the expense for excursions, and like necessary expense. Necessary books, chemicals, microscopes, and glassware will be supplied free. The intention is to give the best facilities possible, so as to make it worth while for students to attend.

Good board may be had convenient to the laboratory for \$5.00 per week, with room extra. It is customary for most of those attending to sleep in tents, on the Station grounds, taking meals only. For those who wish to tent and cook in regular camp style there will be every opportunity given for comfort, the region affording a bountiful food supply of everything necessary, but those attending will be expected to supply their own tents and bedding.

DATE OF OPENING.

The course of instruction will open Monday, July 22, and continue four weeks. It will be most satisfactory to enter at the beginning, but from the nature of the work students may enter at any time.

Applications should be made as early as possible, as the accommodations are limited, and the material taken from the University will of necessity be only enough to supply those in attendance.

A collecting trip of four or five weeks will be taken prior to the opening of the Station. It will be possible for a very small number to accompany this expedition on payment of a share of the expense.

HOW TO REACH THE STATION.

Students via Northern Pacific will get off at Selish. Stage tri-weekly runs to Flathead lake, (35 miles), connecting with steamer Klondike, which runs across the lake.

Students via Great Northern will get off at Kalispell, connecting by stage with the steamer Klondike at Demersville, a short distance from Kalispell. It is possible arrangements may be completed so as to go by rail to the O'Brien lumber mills on the northern arm of the lake, taking the Klondike for the Station but a few miles to the east.

Correspondence is solicited and full information on any subject will be cheerfully furnished.

OPPORTUNITIES FOR INVESTIGATION.

Any one wishing to engage in investigation of biological problems pertaining to the life of the locality, before or after the regular work, will be given the freedom of the building, boats, and apparatus, and will be offered every facility possible. In such cases no fees will be charged, except for special material or reagents which may be needed.

Applications and correspondence should be addressed to the Director,
PROF. MORTON J. ELROD,
Missoula, Mont.

Address, July 10th to Aug. 20th,
Biological Station,
Holt, Flathead Co., Mont.

For any information concerning the University of Montana, its departments, courses of study, etc., address,

OSCAR J. CRAIG, President,
Missoula, Montana.