

Yellow Bay Station Opens in June

By Dr. Gordon Castle, Director

After a lapse of many years the Biological Station of Montana State University will be reopened in June 1948 for class work and research in botany and zoology during the summer. Buildings have recently been erected at Yellow Bay which will provide more adequate facilities for instruction and living at the Station.

A half century ago, in the fall of 1897, Dr. M. J. Elrod came to Montana State University as professor of biology. He immediately saw and appreciated the opportunities in this area for establishing a station for field work in the biological sciences. Consequently, in 1899, the University leased five acres of land at the mouth of the Swan River at Big Fork, Montana, built a small wooden building and opened a biological station for the study of the plants and animals of that area. The Station continued to operate at Big Fork until 1912 when a building was completed at Yellow Bay on land granted in trust by the federal government to the University to be used for Biological Station purposes.

From 1912 to 1921 summer work was carried on at Yellow Bay; students, staff, and visiting investigators began to study some of the problems of the area. Owing to lack of funds and other difficulties, work was discontinued in 1921. From 1928 to 1931 an investigation of Flathead Lake from the standpoint of fish foods was carried on by the University in cooperation with the Montana State Fish and Game Commission. The results of this investigation were published by the Fish and Game Commission. A scientific paper concerning this study was published in 1935 by Dr. R. T. Young, one of the members of the University staff, in "Ecological Monographs." Since 1931, the Station has been used at various times during the regular school year for classes which could benefit by studying there.

During the summer of 1947, three staff members and four graduate students spent nine weeks at the Station laying the foundations for future work. Collections were made which will be the nucleus of future extensive collections of plants and animals of the area. Various regions were surveyed as to their use for field trips, and the beginnings of organization of materials were made.

One of the primary objectives of the Station is to provide a place where students may come during the summer months to study animals and plants in their native environment and become familiar with their habits, characteristics, distributions, etc. A second objective is to make a study of the plants of western Montana and to compile a flora of the area. This flora would include not only flowering plants but also the microscopic plants of the waters and lands of the area as well as the ferns and mosses. Third, a similar project referring to animals is one of the main objectives of the Station. By animals is meant not only the fur-bearing animals, big game animals, and birds, but all animals—the insects, spiders, snails, clams, worms, fish, frogs, snakes, etc. In other words we should like to make a comprehensive list of all the animals which occur in this area.

Another purpose of the Station is to provide a base at which research may be carried on in many fields of botany and zoology. One of the important types of investigation which can be carried on at Yellow Bay refers to fish. Problems which may be worked on to advantage at the Biological Station include a study of the life cycles of the many fishes which inhabit Flathead Lake. Life cycles are known for these fish in other waters, but it would be of interest to check on the growth and development of the fish in this particular lake. Another problem that is

of extreme interest is a study of the food habits of the various species of fishes in the lake. It is known that some fishes are more selective in their feeding than others, and it is important that we know what fishes feed upon what foods. This problem immediately leads to a consideration of the life histories, habits, distribution, and relative abundances of numerous fish food organisms. Such information is almost entirely lacking for many of the lake species. Furthermore, the relationship between the plants of the lake and the fish food organisms and the fish themselves is an extremely interesting and important problem.

Where do bass occur in the lake? Are they limited to certain areas or are they more or less generally distributed throughout the lake? These same questions may be asked for every species of fish in the lake. The original fish population of Flathead Lake was composed of probably not more than eight species. According to B. W. Everman who made a survey of the lake in the latter part of the last century, the native or cut-throat trout, the bull trout or Dolly Varden, the Columbia chub, the Rocky Mountain whitefish, two species of suckers, and the squawfish were the only inhabitants of the lake. Today this list is more than doubled in numbers owing to introductions by the Fish and Game Commission and by individuals. What effect has this conglomeration of fishes upon the lake and upon the production of various kinds of native fishes in the lake?

Another important problem which may be studied at Flathead Lake better than at any other lake in the Northwest deals with the effect of damming upon the plant and animal population of a lake. We know very little of the effect of such dams on lakes of this region. Information is

(Please turn to page 19)

YELLOW BAY STATION OPENS

(Continued from page 9)

available which applies to lakes of the Middlewest, East, and South, but for this particular region practically nothing is known. All of these studies and many others may be carried on at the Biological Station at Yellow Bay.

In addition to lake studies, studies of the fish food organisms in the many streams of western Montana may be carried on. It is essential that we know more about the carrying capacity of our streams, the spawning areas available to the fish in those streams, and many other factors which are important in fisheries management. The Biological Station offers an ideal base from which to work on these problems.

Within a relatively short distance of Yellow Bay are populations of game birds and big game animals which may also be studied from many different aspects. It is hoped that these problems will eventually be undertaken and some information secured about them. When we add to these studies of larger animals the many interesting problems referring to smaller and less known forms, it is evident that opportunities for the biologist to carry on research at the Station are practically unlimited.

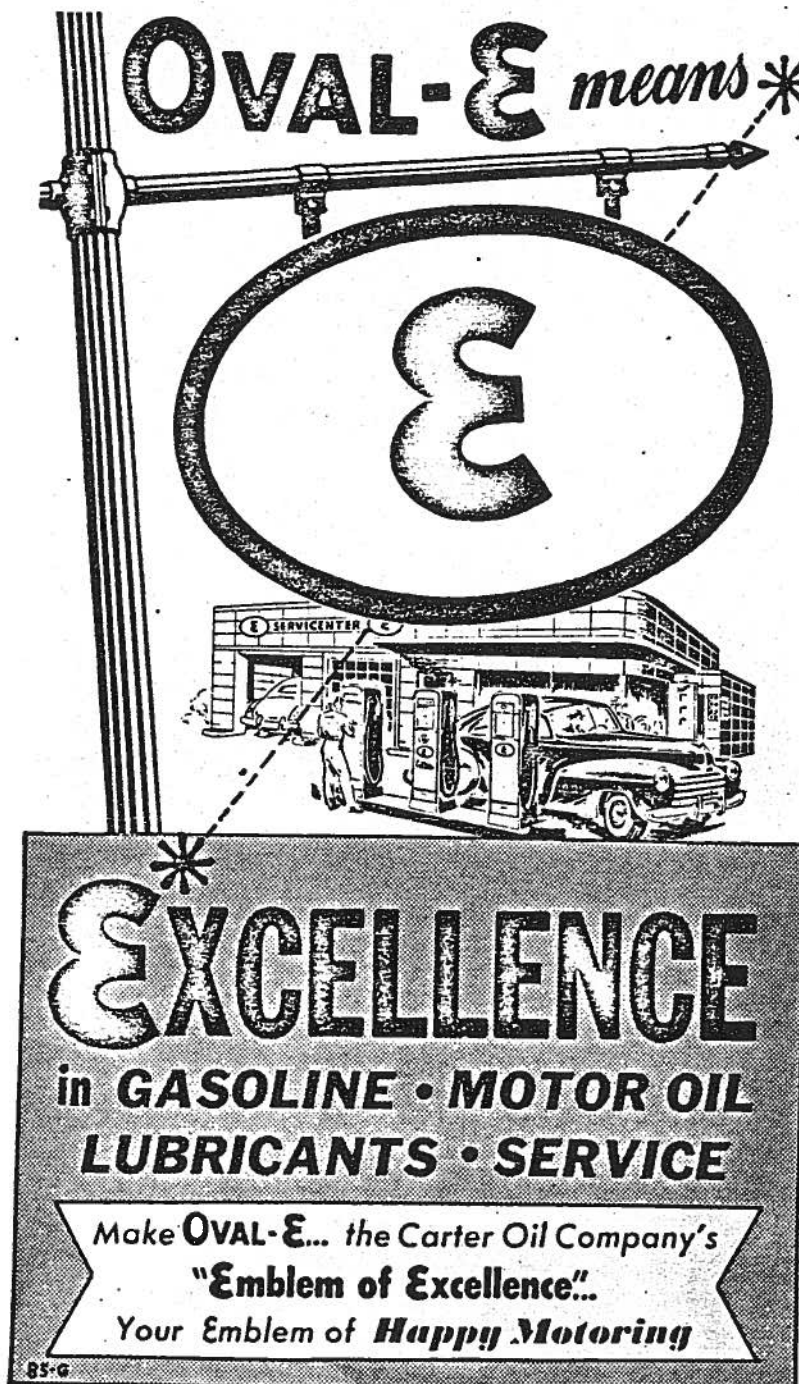
The development and success of the Biological Station depends upon many factors. It is essential that we have a good staff, interested and capable students, interested investigators, and proper equipment and facilities for carrying on study. The staff of the Station will be composed of men who are well trained in their respective fields. The students who will study there will be selected on the basis of their abilities and interests. Visiting investigators will also be of a high type who will contribute much to our knowledge of the area. At present, our facilities and equipment are somewhat limited. It is only by means of the support of the people of Montana who are in-

terested in seeing some of the problems listed above solved and who are willing to lend their support and to secure the support of the State from legislative appropriations that it will be possible to contribute to the development of the biological resources of Montana. Sportsmen can play a very important part in aiding the University and the State in carrying out the objectives of the Biological Station.

Callahan Heads Falls Club

Pat Callahan is the new President of the Great Falls Retriever Club. He succeeds Ray Ramsey, Julius Rinan is Vice President, John Nye Secretary-Treasurer and Roy Houseman, Alex Ware, A. J. Moore and Paul Olson directors. The club began weekly training lessons on March 21.

Tell Advertisers You
Saw Their Ad in Out-
door M o n t a n a .



The advertisement features a large, stylized 'OVAL-E' logo at the top, with the word 'means' and a star symbol to its right. Below the logo is a large oval containing a stylized 'E'. Underneath the oval is a detailed illustration of a service station with several cars parked at pumps. At the bottom of the advertisement is a large, dark rectangular box containing the word 'EXCELLENCE' in large, bold, serif letters. Below 'EXCELLENCE' is the text 'in GASOLINE • MOTOR OIL LUBRICANTS • SERVICE'. At the very bottom of the box is a banner with the text 'Make OVAL-E... the Carter Oil Company's "Emblem of Excellence"... Your Emblem of Happy Motoring'. A small '85-G' logo is visible in the bottom left corner of the advertisement box.

OVAL-E means *

EXCELLENCE
in GASOLINE • MOTOR OIL
LUBRICANTS • SERVICE

Make **OVAL-E**... the Carter Oil Company's
"Emblem of Excellence"...
Your Emblem of *Happy Motoring*

85-G