

A black and white photograph of three young boys at a pond. The boy in the foreground is bent over, holding a bucket and pouring water into the pond, creating ripples. He is wearing a checkered shirt and dark pants. Behind him stand two other boys, one in a plaid shirt and the other in a striped shirt and glasses. They are all looking down at the water. The background shows a wooded area with trees and a wooden fence.

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Please report promptly any change of address. Send in both the old and new address with notice of change.

At the present time the Bulletin is circulated free of charge to anyone forwarding a written request.

the cover

Members of the Prineville school camp help release trout in one of the smaller lakes in vicinity of Suttle Lake. (Photo by Ron Shay)

BULLETIN

HUNTER SAFETY TRAINING PROGRAM

Instructors Approved

Month of January	64
Total to Date	679

Students Trained

Month of January	214
Total to Date	1949

Firearms accidents reported 1960

Fatal	0
Nonfatal	0

Lloyd Wilson Retires After Interesting Fishery Career

Lloyd Wilson, superintendent of the Fall River hatchery in Deschutes County, retired January 31, following 42 years of fish cultural experience with various state and federal agencies in Oregon and Hawaii.

With his background, it was only natural for Lloyd to develop into a fish culturist. At the time of his birth in 1894, his father, Irwin Wilson, was employed at the original Clackamas River hatchery of the U. S. Bureau of Fisheries. The family lived there until 1907, when Mr. Wilson (granted a 5 year leave of absence) took his wife and children and 1,000,000 chinook salmon eggs to Argentina. The trip took two months via New York, Southampton, Cherbourg, Lisbon and Buenos Aires.

The Argentine hatchery site was 20 miles inland from Santa Cruz, at the southern tip of South America. Fish were fed in ponds for several months, guanaeos being killed to obtain hearts and livers for fish food. After two years, Mr. Wilson sent his family back to Oregon while he remained for three more years to complete his contract and to see whether any mature chinooks returned up the Santa Cruz River. None did and the transplant was considered a failure. Upon the return home, the family travelled up the west coast of South America, taking three months for the trip.

In 1912, Lloyd started work with the State Fish and Game Commission at the Bonneville hatchery. Through the years he also worked at the Trask River hatchery (now Oregon Fish Commission station), the Cedar Creek, Enterprise, Oak Springs, Diamond Lake and Fall River hatcheries of the Game Commission. His career includes considerable time either in charge of or assisting in rainbow and eastern brook trout eggtakes at Spencer Creek (Klamath River), Fourmile Lake (Klamath County), Diamond, East, Paulina and Elk Lakes and Crane Prairie Reservoir. During the period 1924-28 at Diamond Lake, Lloyd recalls spawning a rainbow weighing 26 pounds. Taking

GAME COMMISSION TO MEET IN MARCH

The Oregon State Game Commission will meet in regular session on Friday, March 18, at its Portland office at 1634 Southwest Alder Street.

J. H. Van Winkle is serving as chairman for 1960.

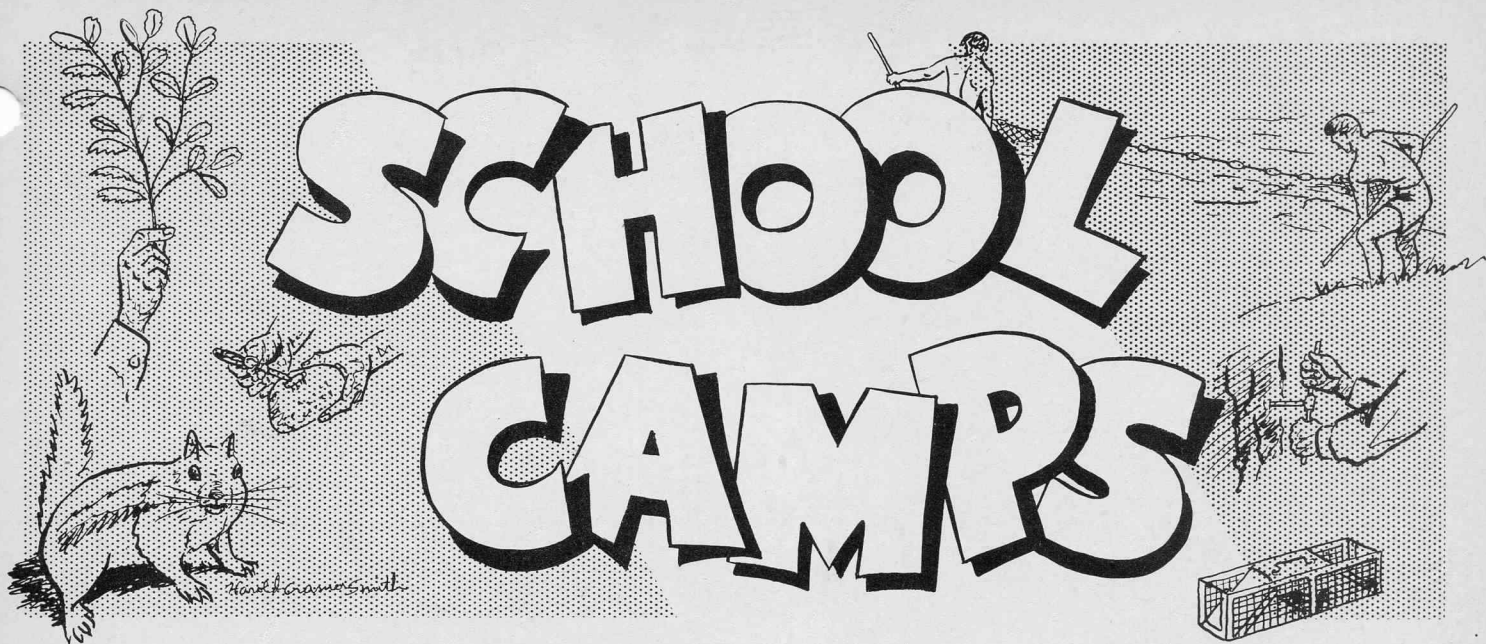


18 or 19 million eggs a season at Diamond Lake was not unusual at that time. In those days travelling through the snow to the high lakes was rugged work—it had to be done on snowshoes or skis and supplies were towed on sleds.

On two different occasions Lloyd travelled to Hawaii. In 1922-1924, he joined his father in working for the Territorial Fish and Game Commission. Lloyd worked on a game farm raising pheasants and also helped hatch and plant some of the first rainbow trout in Hawaiian streams. Good results were obtained from these trout plants on the islands of Hawaii and Kauai. After an interim working for the Oregon Game Commission again, Lloyd returned to Hawaii in 1929 for another two years of fish cultural work with the Territorial Commission.

Lloyd and his wife have retired to a trailer home on the Oregon Coast. They have four children living, two daughters in Bend, one in Seattle, and a son in Roseburg.

The 17th largest elk taken on the North American continent and listed in the Boone and Crockett big game records can be claimed by Andy Chamber of Portland. Last November in the Izee district of Grant County he killed a big seven-pointer whose rack of antlers tallied 387 and 4/8 points when measured for entry in the Boone and Crockett records. Top position of 441 points has been held since 1890 by a Wyoming elk.



By Austin F. Hamer, Education Chief

IF THERE IS A BETTER PLACE than the outdoors in which to teach conservation of wildlife, soil, water, and plant life, education specialists for resource management agencies are not aware of it. They believe that "mother nature's classroom" offers an ideal teaching situation where youngsters can learn by seeing, feeling, smelling, and tasting. It is in the outdoor laboratory that many of the basic concepts of conservation become tangible. Relationships of one resource to another become understandable when students can observe them in natural surroundings.

There was a day when schools didn't have special rooms for teaching physical education, science, music, or art. Now we think nothing of having two gymnasiums at a modern school. The well-equipped science and physics laboratories of today were unheard of luxuries not too many years ago. Special rooms for teaching music and art are included in the plans for most new schools. But one of the finest laboratories for teaching the science of "living things" lies just outside the schoolroom window.

School Grounds Provide Opportunities for Outdoor Teaching

Teachers with imagination, ingenuity, and the desire to help young people learn the almost lost art of observation, can open up new vistas of interests and understandings by taking their students into the outdoor classroom. Here is where the combined efforts of teachers and resource consultants can do a most effective job of conservation education. County agents, state and federal foresters, soil conservationists, and wildlife

biologists can frequently make suggestions for using the school ground as a laboratory for teaching natural resource conservation. They can sometimes visit the classroom to talk to students, thereby setting the stage for outdoor activities. They can often assist in planning for most effective use of the outdoor classroom and can always provide instructional materials in limited quantities to be used as reference material. Many conservation agencies have excellent films which can be borrowed or rented.

The National Association of Biology Teachers has recently published a handbook entitled "Manual for Outdoor Laboratories: The Development and Use of School Grounds as Outdoor Laboratories for Teaching Science and Conservation."¹ This manual provides the teacher with some concrete suggestions for various activities in the outdoors. Each suggestion is the result of practices being carried out in schools in various parts of the country.

Field trips to observe scientific phenomena or to collect specimens for later study are accepted as an integral part of an educational program. Field trips provide students with an opportunity to observe the things of nature, but it is important that both students and teacher approach the field trip with an inquiring mind. Behind each log, animal track, bit of vegetation and gully is a story. It may take several trips to gain the whole story. Any field trip into the

outdoors should have a purpose related to the classroom efforts.

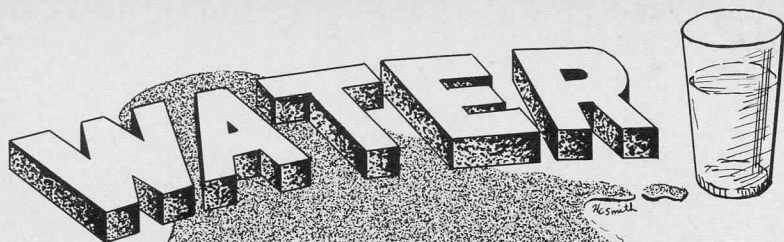
One of the major problems is that of finding an area suitable for study. When the school ground itself does not offer adequate opportunities for outdoor teaching, adjacent areas may be used. Sisters High School has solved the problem by obtaining a special use permit from the U. S. Forest Service for a tract of forest land. The conservation class has made a survey of the resources and mapped the land. They have made plans for the management of timber and other resources. The stream which flows through the plot has been studied to determine if it can be improved for fish. Several small areas have been developed to provide more food and shelter for small animals and deer. Students participating in this project become so enthusiastic that they invited the elementary school to participate in a conducted tour of the area. A sixth grade from as far away as Madras has visited the area in order to provide students with learning experiences in the outdoor classroom.

School Camping Not New

Outdoor education in the school curriculum is designed to "teach in the out-of-doors those things which can best be taught there."² School camping is the term frequently applied to the situation in which the classroom teacher takes her class into the outdoor classroom for a whole week of living, learning, and working together. Camps owned by youth organizations such as the Boy Scouts, Girl Scouts, or denominational groups are sometimes used for school camping

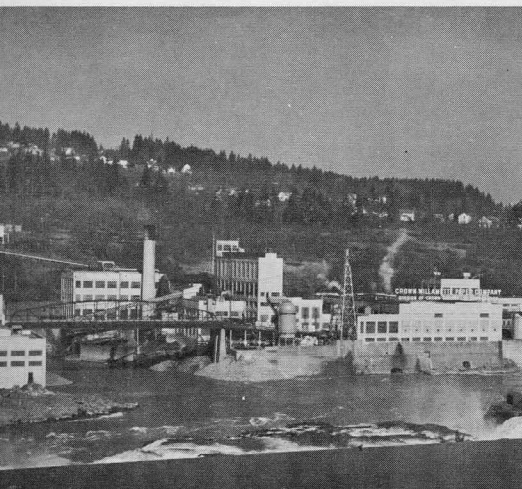
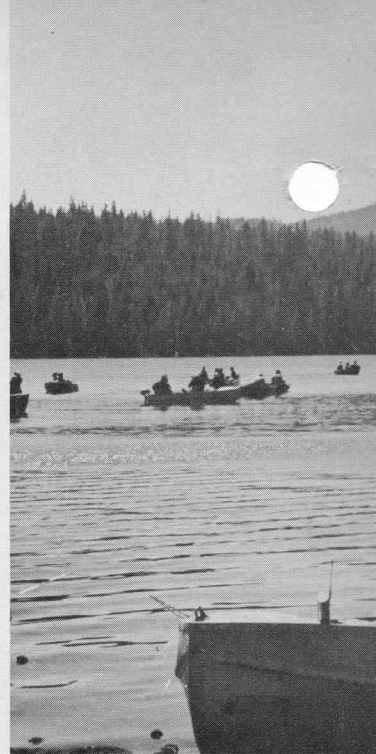
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1. Interstate Printers and Publishers, Inc., Danville, Illinois, 1959. 84 pages, \$1.25.
2. Sharp, L. B., "Basic Consideration in Outdoor and Camping Education," Bulletin of National Association of Secondary School Principals, Vol. 31, No. 147, 1947, page 43.

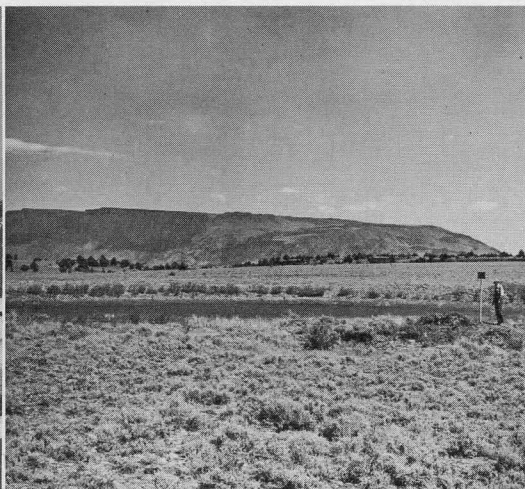


Key to Your Survival!

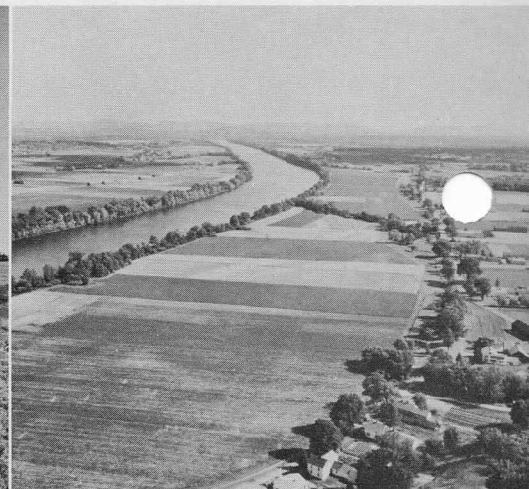
National Wildlife Week
March 20-26, 1960



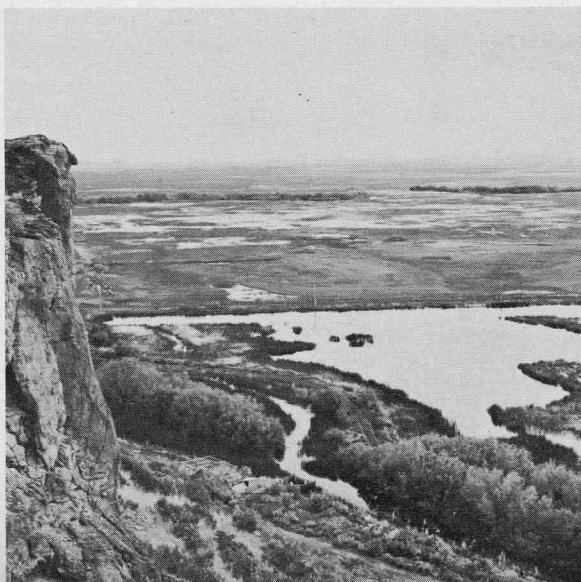
Industry uses between 80 and 85 billion gallons of water each day in the United States. Electric power, steel, chemicals, petroleum refining, and pulp and paper industries are the biggest users. Site selection frequently depends upon water.



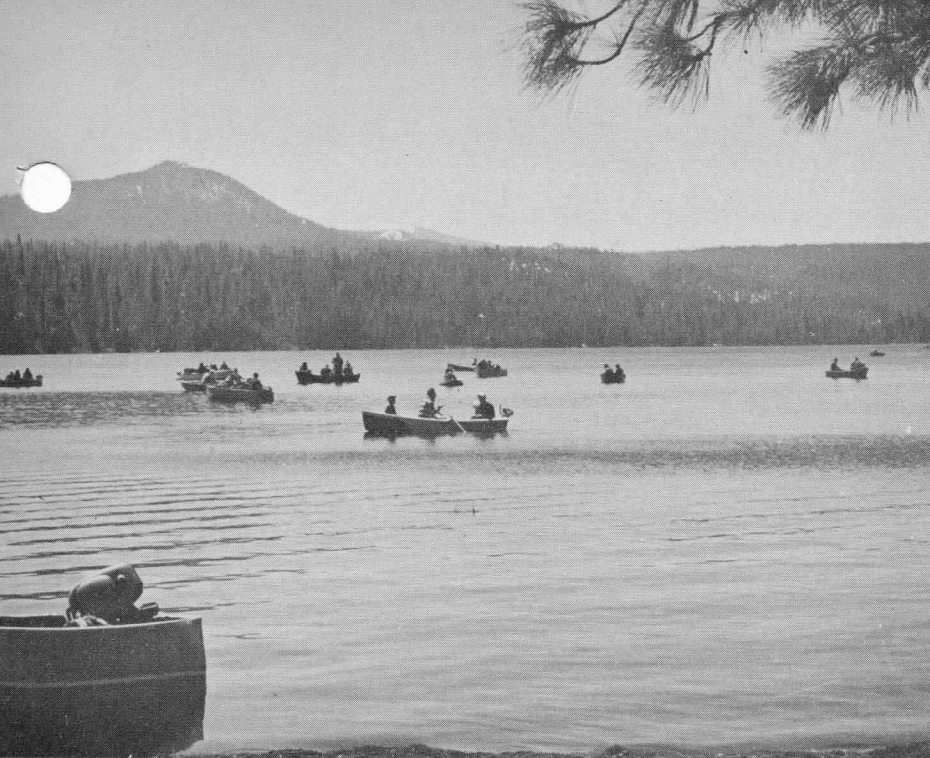
Wildlife depends upon adequate year 'round supplies of water. Big game such as mule deer and prong-horned antelope benefit from the construction of water holes on ranges which lack natural springs or streams.



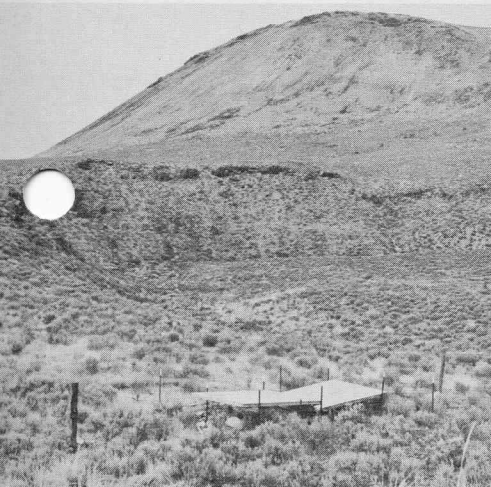
Water is the life blood of our land. Rivers like this play a vital role in producing crops. It is estimated that anywhere from 75 to 100 billion gallons of water a day go for irrigation purposes. (U. S. Soil Conservation Service photo)



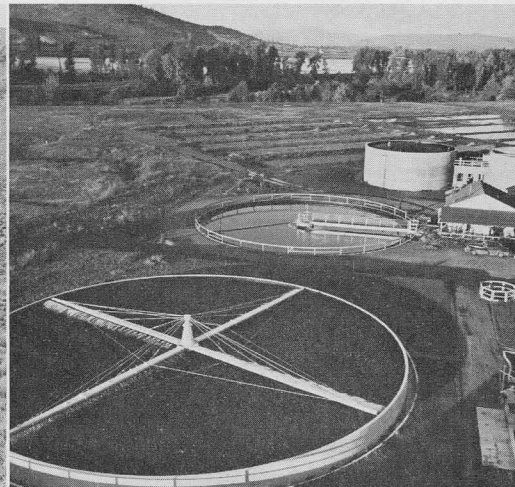
State or federally owned management areas provide waterfowl feeding and resting grounds. Habitat improvement is a primary function on these areas. Some are also designed to be used as public shooting grounds. The storage and control of water supplies is vital to the management of such areas.



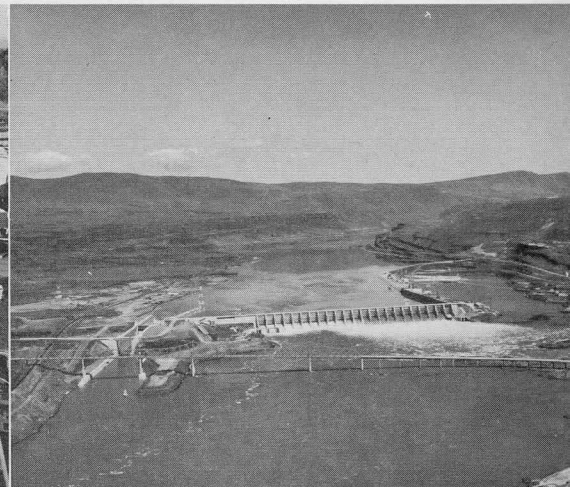
Fishing is most popular form of outdoor recreation. More than 337,000 licensed anglers fished Oregon waters in 1959. Tourists and vacationists added to the total. Large lakes such as Diamond, Odell, Suttle, and East Lake attract thousands of boat fishermen each season. Reservoirs also provide excellent areas for fishing, water skiing, and pleasure boating.



More than 100 cisterns have been installed in eastern Oregon to provide drinking water for upland game birds such as quail, chukars, sage grouse and pheasants. Rain water is collected from the apron and stored in underground cistern.



Of the 9,000 sewer systems in the nation, only about 6,000 flow into a modern treatment plant. The other 3,000 empty into rivers, endangering the health of people, fish, animals, and waterfowl. (Oregon State Sanitary Authority photo)



The majestic Columbia is the queen among American rivers, so far as water power is concerned. More than 42 per cent of all the latent hydroelectricity in the country grows in the turbulent rapids of the Columbia basin. (U. S. Army Engineers photo)



Throughout the nation, city and town water systems supply 14 billion gallons of water a day from reservoirs similar to this one above Portland. The average American home now uses from 30 to 50 gallons of water per person each day. Our needs are expected to double within the next twenty years.

School Camps

(Continued from Page 3)

purposes because they provide teaching opportunities which resource consultants recommend. In addition, adequate facilities are available for housing and feeding youngsters and staff.

Michigan pioneered school camping back in the early 1940's with help from the W. K. Kellogg Foundation. California has taken the lead in recent years with school camping programs in San Diego, Long Beach, Los Angeles, and many other cities. In other parts of the country—New York, Ohio, North Carolina, Texas, Wisconsin, Illinois, and Indiana—there are excellent programs

which have proved their worth. The development of outdoor education in camp settings in the United States has come about chiefly within the past 15 years. The continued growth of existing programs and the plans for new ones give evidence that outdoor education is one of the new frontiers of education.

School Camping Comes to Oregon

Oregon's school camping program is so new that many people are not even aware of it. The first school camping project in Oregon took place in the spring of 1957 under the direction of Dr. Irene Hollenbeck of Southern Oregon College. A combined fifth and sixth grade class from the Westside Elementary School of Medford and their teacher,

Don Perry, spent a week at Dead Indian Soda Springs Camp located east of Eagle Point on Little Butte Creek. Resource consultants from the U.S. Forest Service, the Soil Conservation Service, and the Game Commission assisted in planning learning experiences in the outdoors which would have meaning for the students and would enrich subject matter taught in the regular classroom.

During the pre-camp phase, which extended over several weeks, the class obtained information about the camp area, the resources which they would find there, and the facilities which would be used. Emphasis was given to the study of soil and water, forests and wildlife, and also the wise and proper use of scenic, scientific, historic and recreational resources. Students helped in preparing menus, food orders, and also work activities such as table setting and other housekeeping chores.

The in-camp experiences helped to give meaning to reading, discussions, and other classroom work which preceded the week in the outdoors. Attitudes, interests, and skills conducive to wise use and better understanding of the importance of natural resources can be developed more fully out-of-doors in direct contact with the environment. The forester, soil scientist, and wildlife biologist worked hand in hand with the teacher to see that every activity in the outdoor classroom was a learning experience for the students. The teacher helped to make each activity relate to the subject matter which was being taught as part of the regular curriculum.

The post-camp experience is the third phase of the program. Here is where the students have an opportunity to review some of the things learned in the outdoors and make use of their experiences. Without this follow-up, the outdoor learnings and experiences would lose much of their value to both the students and the teacher. This is an important part of the teaching job and one which the experienced teacher will not overlook.

No one has had a greater influence on the development of school camping in Oregon than Miss Margaret Milliken, Associate Professor of Education at Oregon State College. Several years ago she started teaching courses in outdoor education at the college, and with encouragement from Dean Franklin R. Zeran, she soon added a seminar on school camping. Her enthusiasm and energy have been instrumental in promoting the pilot projects in outdoor education which

(Continued on Page 7)



Every dip of the net brings up a surprise. Children are eager to learn in the outdoor laboratory. The importance of water for domestic, industrial, agricultural, and recreational use is a part of social science education. These students are exploring the pond edge for aquatic insects.

(Photo by Dur Morton, National Audubon Society)

School Camps

(Continued from Page 6)

have been conducted in several school districts.

Prineville Sixth Grade Goes to School Camp

In the spring of 1958, Oregon State College and the Oregon Game Commission sponsored the first of a series of pilot projects in outdoor education. With assistance from the State Department of Education and Crook County Schools, the Crooked River Elementary School of Prineville was selected, and Mrs. Ellen McCormack and her class were chosen to be the first group to go to camp. Mrs. McCormack had prepared herself for teaching in the outdoors by attending a one-week Conservation Education Workshop held at Hoodoo Bowl. As Camp Director for the project, Miss Milliken assumed the responsibility for handling the mechanics of the operation. She and her seminar students in school camping prepared outlines and schedules, gathered instructional materials, helped arrange menus, assisted in setting up a budget. They planned learning, recreational, and work activities for the young outdoorsmen who would be descending upon Tamarack, a private camp located near Suttle Lake in the Oregon Cascades. The Oregon Game Commission provided the coordinator for resource education, who assisted Miss Milliken in the preparation of teaching materials geared for use by sixth grade students.

So successful was the Prineville project that other school districts soon became interested in participating in a similar project. The Salem school district sent its two special education teachers to assist Miss Milliken and her staff in planning a project for educationally advanced youngsters in fourth through sixth grades in the Salem elementary schools. Right on the heels of this came plans for Prineville's second outdoor education project. Portland schools joined the procession into the outdoor classroom in the spring of 1959 when the Fernwood Elementary School took its seventh grade into the outdoor classroom at Camp Adams near Colton.

Coos County schools are currently making plans for the fifth pilot project sponsored by Oregon State College and the Oregon Game Commission. Sixth grades at the Lakeside and Bunker Hill Schools will begin a period of pre-camp preparation about the first of March. The week of May 9-13 will be spent at Camp Tsilcoos, the Boy Scout camp on Siltcoos Lake.

Each pilot project has been carefully planned to provide factual information

GAME BULLETIN



Youngsters learn how to construct a fire trail to prevent the spread of forest fires. Foresters teach them that anyone can start fires. Knowledge, skill, and plenty of hard work are necessary to control them. (Oregon State College photo)



Leaves picked by students for classification in nature study are identified by Robert Damberg, special resource consultant for Portland outdoor education project. Students also collected flowers, rocks, insects. Their work went into Fernwood school curriculum library. (Oregon Journal photo)

on organization, curriculum, staffing, and costs of operation. Participation of schools from various parts of the state has been encouraged so that different

problems are encountered. When the final pilot project has been completed, a guide to school camping will undoubtedly

(Continued on Page 8)



Mullet fishermen are reminded that this species is now classified by law as a game fish and may be taken by hook and line only. There are no restrictions on size or bag limit. Mullet are found mostly in the Klamath Lake area.

* * *

Back in 1948 the Game Commission live-trapped and ear-tagged a number of adult beaver along the Pistol River and then transplanted them to the Chetco River. In January, Frank Worrell of Central Point reported he had trapped a 50-pound male beaver carrying one of the 1948 ear tags. The Chetco drainage has been open to beaver trapping since 1951.

* * *

"Mammals of Prey," Information Leaflet No. 12, has just been issued by the Game Commission. Copies are available from the Commission office.

* * *

Hunter success during the 1959 waterfowl season was considerably lower than in 1958 on the public shooting areas at Sauvies Island, Summer Lake and Warner Valley. Poor water conditions, bluebird weather and birds feeding at night contributed to the lack of hunter success.

The 16,519 hunters checked through the three shooting grounds bagged a total of 29,056 waterfowl, of which 21,136 were ducks and 7,920 were geese. During 1958 more than 16,135 hunters took 38,029 waterfowl.

Sauvies Island had the biggest drop in hunter success, the 1959 success ratio being 1.56 birds per man compared to 2.27 in 1958. At Summer Lake, the number of ducks taken this season was considerably less but hunters shot almost twice as many snow geese as last year.

Anglers and Hunters Increase

Each year more people turn to hunting and fishing for recreation and 1959 was no exception. A total of 624,680 hunting and fishing licenses was issued, exceeding by almost 45,000 the 1958 record of 579,742 licenses. Much of this was accounted for by the increase in the number of daily angling licenses but the growing interest in big game and other hunting also pushed up the number of license holders.

To this group can be added an undetermined, but sizable, number of anglers and hunters for no license is required under the following conditions: fishing for nongame ocean fish in the surf or bays; hunting small game or fishing for trout and warm-water fish on one's own land; and fishing and hunting small game by juveniles under 14 years.

HUNTING AND FISHING LICENSES ISSUED

Type of License	1959	1958	1949
Resident combination	89,824	82,981	93,916
Resident angler	172,828	174,218	133,893
Juvenile angler	29,889	28,501	18,194
Nonresident angler	6,569	6,328	3,794
Vacation angler	12,402	11,720	16,730
Daily angler	103,101	72,488	
Resident hunter	176,660	171,433	112,114
Juvenile hunter	4,910	5,086	6,598
Nonresident hunter	2,016	1,831	1,836
*Special annual combination	21,070	19,767	7,935
*Special annual angler	4,286	4,121	1,418
*Special annual hunter	994	1,126	627
Blind angler (free)	131	142	
Total sales to individuals	624,680	579,742	397,055
*Special annual elk tags	2,496	2,435	644
Resident elk tags	41,425	39,784	26,983
Nonresident elk tags	296	254	483
Supervised elk hunts	40	36	
Resident deer tags	247,569	233,261	165,120
Nonresident deer tags	1,132	924	834
*Special deer tags	3,995	1,524	999
Supervised deer hunts	58	6	
Antelope tags	902	604	959

*Includes disabled veterans, old age, indigent, and other special licenses.

JOINT WATERFOWL COUNT MADE

The annual mid-winter waterfowl inventory in Oregon was conducted during January by the Game Commission and U. S. Fish and Wildlife Service as part of a similar program carried on throughout the nation, Canada and Mexico.

The Oregon tally was 1,019,356 birds, an increase of 21,089 over 1959. The total duck count was 906,816, compared to 883,748 last year. Sizable increases were noted in numbers of pintail, widgeon, bufflehead and ruddy ducks, but the number of wintering mallards seen decreased from 514,393 in 1959 to 413,194 this winter.

The 1960 total for geese seen was 75,289. Last year's count was 88,755. Most of the decrease was in the numbers of lesser Canadas which went down from the 1959 count of 59,000 to about 28,000 this year.

Wintering greater Canadas, however, showed an increase from 22,000 to almost 39,000 this year.

The black brant population continues to show a decline. Whistling swan appeared to be much more numerous in western Oregon although the state-wide total was lower.

School Camps

(Continued from Page 7)

edly be prepared to assist school administrators and interested teaching staff in planning their own outdoor education programs. With the increasing interest being shown by educators, conservationists, and the public, it seems fairly safe to predict that within ten years, a majority of schools will include outdoor education in their curricula, and school camping programs will be well established.

Oregon State Game Commission Bulletin

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