VI. THE FOREST, WILDLIFE AND RANGE EXPERIMENT STATION

Edwin W. (Ed) Tisdale

As of 1984, research organized within the Forest, Wildlife and Range Experiment Station is a well-recognized activity, ranking with teaching and service as one of the three major functions of our college. It was not always thus; in fact, for the first thirty years after its beginnings, undergraduate teaching was the predominant function of the college, and research was a minor activity. An organized research program, involving virtually all faculty, developed slowly and irregularly, with severe setbacks occurring during the Depression of the 1930s and during World War II.

The beginnings of research do go back a long way, however, for there were always people on the faculty with the necessary curiosity, drive, and training to investigate problems of Idaho's wildland resources. As early as 1921, Henry Schmitz (later dean of agriculture and forestry at the University of Minnesota and then president, University of Washington) was investigating native wood products (physical properties), while Ernest (Doc) Hubert was active in forest pathology. In 1930, Dr. Edwin Jahn (later dean of New York State College of Forestry) started studies in chemical properties of native timber species. The interest developed by these men and their helpers in forest tree diseases and in wood products has continued as a strong element in the research program of the college.

By the late 1920s, the need for a more organized approach to research on Idaho's forest resources was recognized. In 1928, the Idaho Forest Experiment Station was established by the State Board of Education. There is no record of recognition or corresponding action by the State Legislature, nor of specific funding for this institution. The organization did begin to function, however, with Dr. Hubert as director. Annual reports for the years 1929 through 1934 record the research undertaken. In 1930, a staff of eight (seven faculty and one research associate), along with three graduate students, were engaged in nineteen projects. All this on a budget of $11,000! But the dollars bought more in those days. The Depression ended this first effort at a college research program; the Idaho Forest Experiment Station disappeared. In fact, its very existence appears to have been ignored for many years after.

The idea of an organized research program for the college refused to die, however, and was resurrected in a more comprehensive fashion a few years later. In 1939, the State Legislature established the Idaho Forest, Wildlife and Range Experiment Station, charged with responsibility for research in the whole field of natural renewable resources, including "forest resources," "the conversion and utilization of timber products," "wildlife and game," "forage and range resources," "recreational resources of wildland," and "watershed lands."

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Dean Dwight Jeffers was given the joint appointment of Dean and Station Director, a practice which has continued to the present. The broad mandate given this new organization was not accompanied by appreciable funding, however, and the advent of World War II put a strong restraint on all college activities, especially research. The station did not really begin to function as planned until the post-war years, but the Act of 1939 marked a major step forward in the development of the college. It was evident that to meet the research responsibility authorized by the legislature, a much larger faculty would be needed, and that henceforth research would be a regular part of faculty positions.

The research program, which persisted through the early and mid-forties in spite of wartime restrictions, was confined to three areas: wood chemistry, forest protection, and range management. The work in wood chemistry, begun by Dr. Jahn and continued by his successor, Dr. Elwood (Jack) White, was the major activity, and utilized most of the meager research funds. Forest protection studies centered on slash disposal.

Range research, under Dr. Vernon Young, consisted of a project on the effects of sheep grazing on vegetation of the white pine type in northern Idaho. The faculty of the college during this period consisted of only five or six members, fewer than in 1930.

The next major move in research came in the post-war period, starting in 1947, when faculty numbers were increased to twelve with the new appointments based on an equal basis of teaching and research. All staff were on 12-month appointments, a fact which helped greatly in developing a research program.

The largest research project initiated at this time addressed white pine pole blight. This study involved the research efforts of two faculty members (Tom Buchanan and Dr. Hubert), as well as two research associates and several graduate students, the largest group assembled for a particular project up to this point in the history of the college. During this same period, research in range management was extended to southern Idaho for the first time by newly appointed faculty members Edwin Tisdale and Lee Sharp. Wildlife research, which had begun on a very small scale in 1942, received a major boost from the establishment of the Idaho Cooperative Wildlife Research Unit, funded cooperatively by the U.S. Fish and Wildlife Service, the Idaho Department of Fish and Game, and the University of Idaho. Dr. Paul Dalke served as the first leader of the Unit, which soon had graduate student research projects active in many parts of the State.

A major new source of finances developed at this time was the Special Research Program of the university. This program provided funds on a competitive and university-wide basis, and was a major source of support for projects such as that on pole blight, the ecology and control of range weeds, and many others.

The administrative work load of the FWR Experiment Station grew rapidly as the research program expanded. In recognition of this fact, the position of Associate Director was created in 1949. The first incumbent was Ernest Wohletz, professor of forest management. He held this position until 1953, when he succeeded Dr. Jeffers as dean and director. Dr. Edwin Tisdale, professor of range management, became the next associate director and held this postion until his retirement in 1975. He was followed by Dr. Ali Moslemi, now head of the Forest Products Department, and then at this time the position was made full-time and titled Associate Dean for Research.

Dr. Charles Hatch, professor of forest management, succeeded to the position in 1979. Currently it is held by Dr. George Belt, professor of forest management.

The research program continued to grow during the 1950s, but at a slower rate than in the initial post-war expansion. In 1953 the Point Springs Field Station was established near Malta, Idaho, for the studies of the management of ranges reseeded to crested wheatgrass. The 1960s were marked by several forward steps, including the establishment of a Cooperative Fisheries Unit in 1973, with Dr. Donald Chapman as the first unit leader. In 1964, the passage by the federal governmet of the McIntire-Stennis Cooperative Forestry Research Act provided a new funding source for research on forest and forest-related lands, based on timber sales and matching research funds from the cooperating states. While not nearly as large as the Hatch funds provided for agricultural research, McIntire-Stennis funds have continued as a sizeable and stable source of support for the FWR Experiment Station.

Dean and Director Wohletz relinquished his positions in 1971, after 18 years of devoted service. Dr. John Ehrenreich, his successor, initiated a period of growth which resulted in the present size and status of the FWR Experiment Station. Favorable factors for this expansion included the excellent facilities of the new Forestry Building (occupied in 1971) and the generally favorable situation for research funding which prevailed in the 1970s.

Features of this expansion included a sizeable increase in numbers of faculty, research associates, and graduate students. Thus, a staff consisting of 28 regular faculty, four technicians, and 63 graduate students in 1971 grew to 58 faculty, 30 research associates and technicians, and 186 graduate students by 1984.

In 1972 the Wilderness Research Center was established to conduct studies of wildland resources and problems particularly related to wilderness areas. Focus of this program is the Taylor Ranch, a property located in the Frank Church-River of No Return Wilderness, and purchased in 1969 by the University.

Another source of finances, the Forest Utilization Research Fund, was established by the State Legislature in 1973 to support studies in forest management and wood products. This fund, with some annual fluctuations, has continued since that time.

A new dimension of the research program was added in 1979 by the establishment of a Cooperative Parks Study Unit, with Dr. Gary Machlis as the Project Leader. The main thrust of this unit is the application of biological and sociological research to the management of national parks in the Pacific Northwest and Rocky Mountain regions.

While much of the expansion of research effort occurring during the 1970s took the form of increased activity in existing fields, some new areas were added, such as Remote Sensing and Fire Ecology, both staffed first in 1975; and a genetic approach to understanding mechanisms underlying insect responses to management—1976.

A new field station at Clark Fork was acquired in 1980 from the U.S. Forest Service. This former ranger headquarters provides a center for both research and teaching in the northern Idaho forest region.

Steps were taken to facilitate the dissemination of research results from the experiment station by appointment in 1975 of a station editor. In 1979 the Publications Office was further strengthened by the appointment of a Director of Information to expedite and coordinate the output of information from the college and the station.

Research publications, although initiated early in 1921, consisted only of three or four items per year for the next two decades. The volume of publication increased with the post-war expansion in research, but even by 1959, output amounted to only sixteen papers and reports. A major step to encourage publication was made in 1965, when a group of experiment station publications was established. These included Station Notes, Station Papers, and Station Bulletins, series designed to accommodate all types of data from preliminary

Lawrence (Larry) Belli (MS - Wildland Rec Mgt., '77) looks over a sampling of FWR Experiment Station publications.

results to reports on major projects. The "Paper" series was dropped later, but the other two have continued, with 39 Notes and 38 Bulletins published to date. Other publications, including Special Reports in a Miscellaneous Series, an Information Series, and a Technical Report Series have also been used to disseminate research results. The Annual Report of the FWR Experiment Station, first issued in 1949 as a small dittoed affair, has developed gradually into a well-illustrated and widely distributed publication.

In 1983, 110 publications were issued, consisting of papers in technical journals, FWR Experiment Station Notes, and Bulletins, Technical Reports, and reports to cooperating agencies.

Graduate studies have always been closely linked with the research activities of the college and station. In fact, graduate students have provided the primary technical staff for most projects, and research assistantships have been the major source of financial support for graduate students. The first graduate degree (M.S.) was awarded in 1915, and for many years thereafter graduate enrollment remained low, usually three to five students per year. Numbers increased after World War II and by 1959, twenty were enrolled. The addition of a doctoral program in 1959 added depth to the graduate program, and the first Ph.D. was awarded in 1965 to Ben Roche, now on the Range staff at Washington State University. By 1984, graduate enrollment reached 186, with 57 students on doctoral programs.

Lee A. Sharp (Point Springs) Experimental Area

Located in extreme southern Idaho, near the town of Malta, the Lee A. Sharp Experimental Area was established in 1954 (as the Point Springs Experimental Area), to study the grazing arrangement of crested wheatgrass. The site includes 960 acres of Taylor Grazing land, twelve 80-acre pastures for intensive grazing studies, and is adjoined by another 7,000 acres of the same type which can be used for intensive trials.

The area was a depleted range of a sagebrush/grass type common over much of southern Idaho, and had become infested with halogeton, a poisonous, introduced weed. The area was seeded to crested wheatgrass in 1952 to control the halogeton and to restore the grazing capacity of the range.

Little was known of the management of crested wheatgrass in those days, particularly on sites as dry as that at Point Springs, with twelve inches average precipitation and high summer temperatures.

Under Dr. Sharp's leadership, a three-way agreement was developed among the Bureau of Land Management, local stockmen, and the University of Idaho. The purpose was to test various methods and intensities of grazing in the spring-fall season for which the area is suited. The bureau supplied the land, necessary fencing, corrals, etc. The stockmen supplied the cattle for the grazing trials, and the university supplied the necessary equipment and manpower to monitor the effects of the trials on both livestock and vegetation.

These studies began in 1954 and have continued since without interruption, making it one of the longest-lived grazing studies in the country.

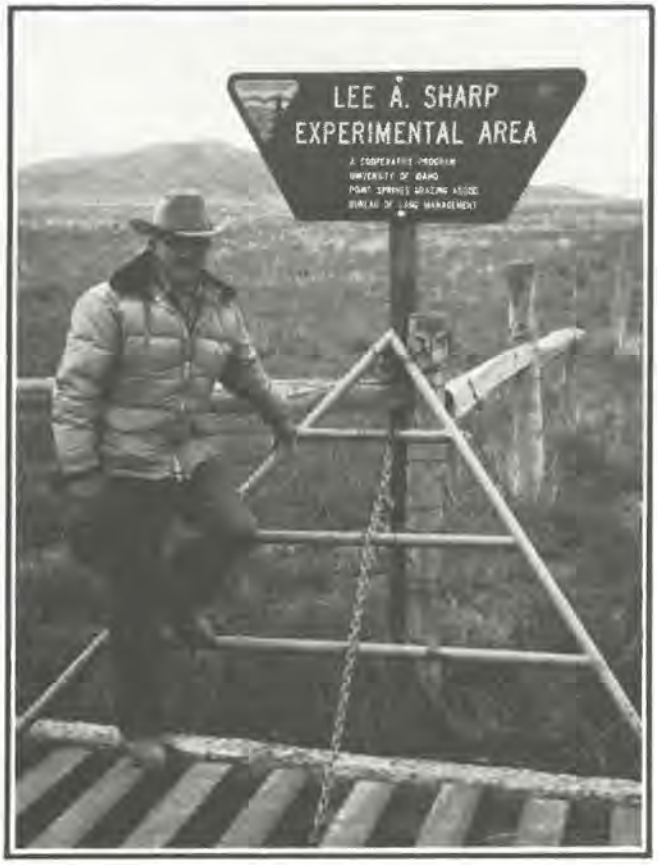
Over the years, livestock gains and the productivity and utilization of the forage and the local climate have all been monitored closely. The results have provided a good framework for managing this type of range to maintain high productivity and a continuing, vigorous plant cover in spite of the effects of climatic fluctuations.

Numerous related studies have been carried out also, using the facilities of this field station. These have included investigations of animal-mineral relationships, salt consumption, nutritive value and digestibility of the forage, soil compaction, water infiltration, and the economics of range improvements.

Graduate students have participated in the main grazing project and the supplementary studies, and over the years many have based their theses on portions of the research program.

The thirtieth anniversary of the field station was celebrated in May, 1984, with many representatives of stockmen, federal and state officials and university personnel present. At this time, the

station was renamed the LEE A. SHARP EXPERIMENTAL AREA, in recognition of the work of Dr. Sharp in initiating and continuing this valuable field station.



The Point Springs Experimental Area was renamed in honor of Lee A. Sharp in 1984.

Taylor Ranch Wilderness Field Station

A possibly unique facility, the 65-acre Taylor Ranch Field Station lies along Big Creek in the heart of the Frank Church-River of No Return Wilderness. The primary access to the ranch is by aircraft, but the more hardy can reach it via a two-day 37-mile horseback ride.

Taylor Ranch came into the university's possession in 1969, primarily through a bit of good luck. A few years before, Maurice Hornocker, professor of wildlife resources, flew into the ranch, seeking a site from which to conduct a research project on cougar. Mr. Jess Taylor, the ranch's owner since 1934, agreed to rent Hornocker part of the ranch. As time went by, the scientist and Taylor became friends. Eventually, Taylor confided to Hornocker his reluctant plan to sell the ranch and retire.

As it happened, in 1966, Paul Dalke, now professor emeritus of wildlife resources, had proposed the establishment of a wilderness research center headquartered in the college. Such a center, wrote Dalke, " . . . would unify under one research authority the disciplines of the university and its cooperators to provide a major national and international thrust in an area of lasting concern. The institute or center, located strategically to the major wild areas of the western United States, would provide a major research fund solicitor, an intellectual resource pool, and a well-equipped agency for broadly conceived research into the . . . nature of wilderness and man."

And now, through Jess Taylor's willingness to sell the ranch, the university was presented the opportunity to possess a headquarters for wilderness research not merely "located strategically to" a major wild area, but *in* it.

Hornocker brought the possibility back to UI officials. In 1969, the university purchased the Taylor Ranch—for $100,000, a true bargain considering that another parcel of land some seven miles up Big Creek from the ranch sold a few years later for 1.4 million dollars.

In 1972, the Wilderness Research Center became an official reality. Briefly stated, the

purpose of the center is to administer and unify wilderness-related research and to encourage research and educational programs which lead to a better understanding of the structure and function of natural ecosystems, man's relationship to them, and their perpetual protection in the wilderness context.

Although research sponsored by the center may occur in various areas in Idaho and the Northwest—e.g., a recreation impact study was conducted on the Flathead River in Montana; a brown bear study was conducted in Alaska—Taylor Ranch is the "jewel" in the center's array of research resources.

Among recent projects headquartered at Taylor Ranch are a bobcat behavior and habitat study, a study of the archeological evidence of early man in the Big Creek drainage of the Frank Church-River of No Return Wilderness, and a project investigating habitat partitioning of the big game winter range on Big Creek.

The ranch's 65 acres consist of a 2300-foot airstrip along Big Creek, four cabins to house researchers, two equipment sheds, a bunkhouse, and a field laboratory.

The oldest of the cabins, though routinely occupied by researchers, is an historic site in its own right. This was the home of Taylor Ranch's original occupant and owner, "Cougar Dave" Lewis. A cat hunter of more than local note (a 1927 *New York Times* article credited him with 600 cougar kills), Lewis came into the Big Creek country around 1879 and patented the 65-acre ranch in 1924. A most interesting character, Lewis was a Civil War veteran, a scout for Captain Benteen—one of Custer's officers—and a survivor of a Sheepeater Indian War battle which occurred on Big Creek not far from the present-day ranch.

Lewis and Taylor met and became friends when Taylor was hunting the country in 1933. The following year, Taylor bought the homestead from Lewis. "Cougar Dave" died in 1935 at age 93 after spending the previous winter with Taylor at the ranch. For the ensuing twelve years, Taylor conducted his contracting business in Boise. But in 1948, he and his wife Dorothy moved to the ranch, scraped out an airstrip, and built a small house. For almost twenty years thereafter, Jess and Dorothy Taylor made the ranch their second home, with Jess operating an outfitting and guiding business from the ranch.

One of the stipulations of the sale of the ranch to the university was that Jess Taylor retain ownership of his home until his death. Jess died in 1983, and Dorothy followed him in 1984. The Taylor Ranch, in name and in history, stands as a memorial to their love of the wilderness.

Today the ranch continues to operate as a wilderness outpost. With the exception of the necessities of the weekly mailplane and shortwave radio, the ranch functions without most modern

Still in use is the cabin of "Cougar Dave" Lewis, the original occupant of Taylor Ranch. The cabin now houses scientists conducting research in the Frank Church-River of No Return Wilderness.

conveniences. There is no electricity. The airstrip grass is cut with a horse-drawn mower; firewood is hand-bucked and hauled by horse. Ranch rules stipulate that garbage that cannot be burned or composted must be flown out at user's expense.

In all, the Wilderness Research Center—currently directed by Ed Krumpe, of the Department of Wildland Recreation Management—and current ranch managers Jim and Holly Akenson, strive to preserve the wilderness characteristics of the ranch and to make it less of an intrusion than a part of the wild lands surrounding it.

Although it is a bit hazardous to use the word *unique*, the Wilderness Research Center and its Taylor Ranch Field Station truly fit the definition of the word. So far as can be determined, the center is thus far the only such university-related organization devoted solely to wild land research and education. And Taylor Ranch—the center's "jewel"—provides scientists with a resource available nowhere else: a permanently staffed wilderness field station squarely in the heart of a designated wilderness area.

Clark Fork Field Campus

Dan DeWald*

In June 1980, the University of Idaho and the College of Forestry, Wildlife and Range Sciences began operation of a new multi-purpose educational facility. This new field campus is privately situated, yet convenient to the neighboring town of Clark Fork, Idaho (1½ miles by county road).

The campus location in the Cabinet Mountains near Lightning Creek at the base of Antelope Mountain, just two miles from the proposed Scotchman Peak Wilderness Area, makes convenient the widest variety of natural resources for study, teaching, and research. Among these resources are numerous pristine glacial lakes, the scenic Clark Fork River, and beautiful Lake Pend Oreille just four miles northwest.

Originally established as the headquarters for the Cabinet National Forest in 1907, the field campus has gone through several name changes. In 1910 it became the Pend Oreille National Forest Station and transferred in 1933 to the Kaniksu National Forest, which then became consolidated with the Panhandle National Forest in 1973.

At that time, the Forest Service abandoned the Clark Fork site to consolidate with the Sandpoint District of the Panhandle National Forest. Between 1973 and 1980 the site was either left abandoned or used by the Idaho Teen Lodge as a teaching center for troubled young adults. When the college began operation in the summer of 1980, the site was in a state of neglect. A wide variety of maintenance problems limited the immediate useability of the facility. In the spring and summer of 1981, professors Jim Milligan (Engineering), Merlyn Brusven (Agriculture), and Mike Falter (Ph.D. - Fishery Resources, '69 and faculty member since 1969) began the Mount St. Helens Ash Study. Students and faculty from the College of Engineering, College of Agriculture, and the College of FWR were busy at Clark Fork through the summer of 1982. Since then, the Clark Fork Field Campus has served as a base for several research projects including the following:

- U.S. Forest Service Grizzly Bear Habitat Research Team,
- Lake Pend Oreille Trout and Char Life History Study,
- Clark Fork River Study.

With increased exposure, Clark Fork's use has increased steadily, with many of the university's colleges and organizations using the site. This use has ranged from faculty retreats by the university deans, College of Agriculture, Forest Resources Department, and English-Humanities Department to summer camp sessions for Wildland Recreation Management and site planning projects by the Department of Landscape Architecture. Use outside of the university has also grown, with the Bonner County school system and 4-H clubs using the facility for resource studies, and the Department of Lands, Department of Fish and Game, and the Forest Service scheduling several events a year at Clark Fork.

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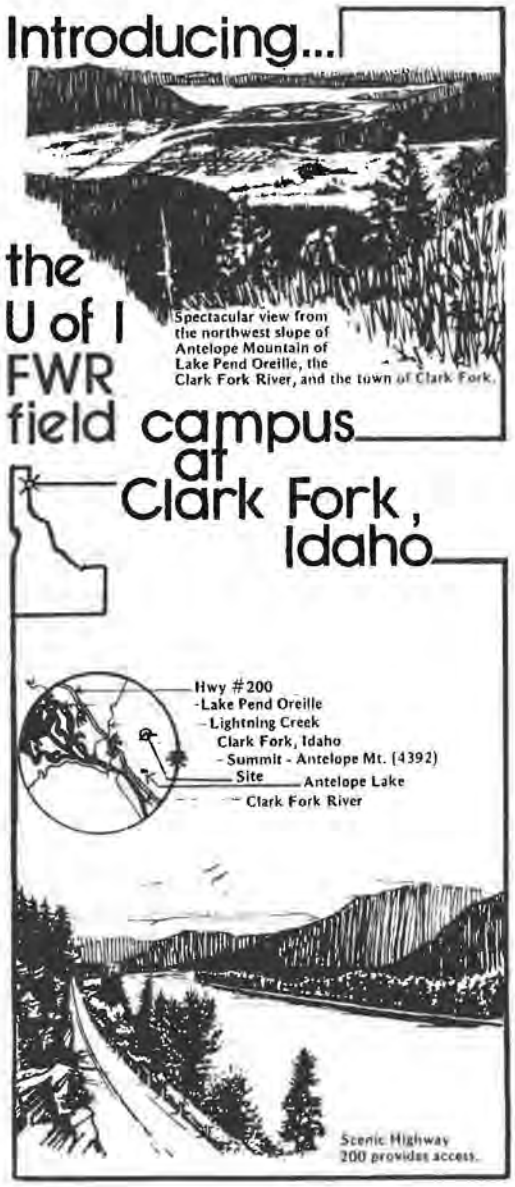
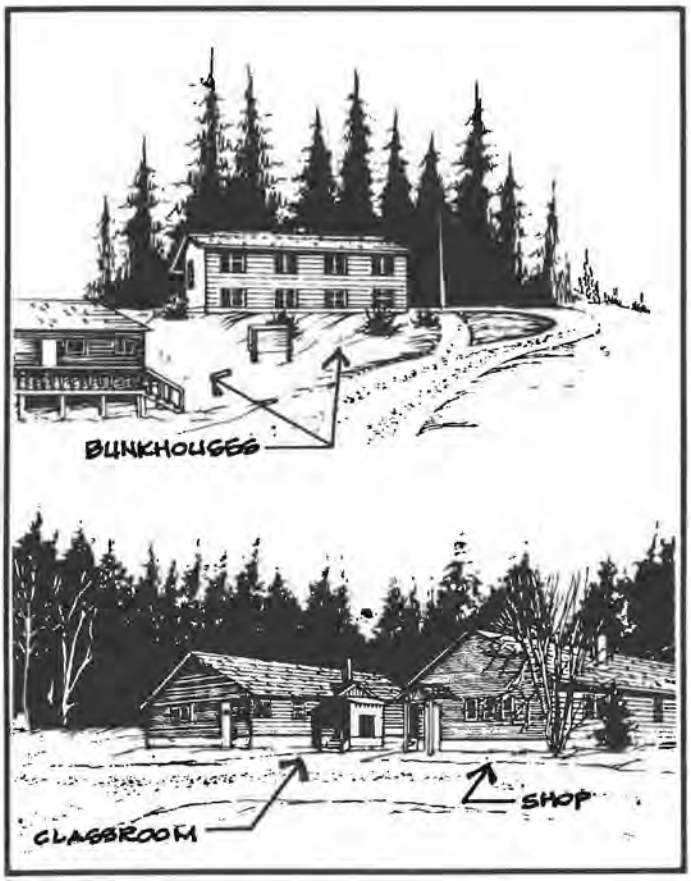


classes. With excellent turnouts and positive feedback, the short course programs seem to be taking on a permanent role at the field campus.

Since its origin in 1980, the UI College of FWR Field Campus has progressed steadily, gaining popularity for a wide variety of uses. Clark Fork can house and feed over seventy people. On-site facilities include two bunkhouses with room for forty-two, a large classroom/lecture hall, outdoor teaching areas, an administration building with living accommodations, a shop, and three private faculty residences.

Views of the Clark Fork Field Campus locale and some of the facilities. Illustrations by Shane DeWald, 1983.



In February of 1983 a continuing education program began on a trial basis at the field campus. The opening program was a one-day session titled "Natural History of Northern Idaho—Geology and Vegetation," and was taught by forestry professor Fred Johnson and mines and earth resources professor Jack Smiley. With 110 people preregistering, the class had to be divided into two sessions. The success of this class led to a successful "Summer Seminar Series" in 1983 and to the Clark Fork Enrichment Series of 1984. The Enrichment Series consisted of nine programs ranging from cross-country skiing and history of local Indians to bird watching and mushroom identification