THE 1959 MICHIGAN TECH

Forester

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Forestry Club

MICHIGAN COLLEGE OF MINING AND TECHNOLOGY
Houghton, Michigan

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Members of the Michigan Tech Forester staff, above, are, left to right, front row, Raymond Theiler, Jack Horak, Michael Massie, and Richard Crowther, faculty advisor; back row, George Ryan, Floyd Marita, Gary Keppen, Donald Hanson, and Carl Puuri.

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Dedication

PROF. VERNON W. JOHNSON

The 1959 edition of the Michigan Tech Forester is dedicated to Professor Vernon W. Johnson of the Forestry Department at Michigan Tech.

Since coming to the Tech faculty in 1939, Professor Johnson has done much to further the advancement of the department as it rose from a modest beginning to its present stature.

For his capable instruction in such fields as mensuration, forest management and entomology, his present and former students accord him their most sincere appreciation. Professor Johnson's contribution to his students' forestry education does not end in the classroom, however. He takes a personal interest in the individual student and always is glad to provide additional help when it is needed.

In recognition of these and other attributes which make Professor Johnson a respected and admired teacher, we, the staff of the 1959 Michigan Tech Forester, are happy to dedicate this publication in his honor.
Faculty members of the Forestry Department are, left to right, front row: Dr. Robert T. Brown, John Veenstra, and U. J. Noblet, department head; back row: Richard Crowther, H. M. Steinhilb, Dr. Gene A. Hesterberg, and Vernon W. Johnson.

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THE DEPARTMENT OF FORESTRY

Michigan College of Mining and Technology

Professor U. J. Noblet

THE SCHOOL

The Michigan College of Mining and Technology is a state-supported college accredited by the North Central Association of Colleges and Secondary Schools. It includes the main campus at Houghton, at which the Forestry Department is located, and a branch at Sault Ste. Marie, Michigan, where a two-year program is offered.

Michigan Tech is accredited as a forestry school by the Society of American Foresters, accrediting agency for professional forestry schools in the United States.

The Houghton campus is situated in the heart of the heavily-timbered Upper Peninsula of Michigan, one of the principal centers of timber production in the Lake States Region. Because of this ideal location, it is possible to combine the advantages of classroom instruction, practical field work and on-the-spot inspection of virtually all phases of forestry activity.

The area surrounding Houghton contains large acreages of timberland, both hardwood and coniferous, most of which are under sustained-yield management. Severly large timber-owning companies carry on well organized forestry programs. In addi-
tion, nearby national and state forests afford the students an opportunity to study the operations of federal and state forestry agencies.

Other facilities within convenient driving range of Houghton are several sawmills, a flooring mill, paper mill, fiberboard plant, Forest Service tree nursery, two experimental forests, and several park and natural areas. Isle Royale National Park in Lake Superior and Porcupine Mountain State Park also are utilized by forestry classes.

The college itself owns a large acreage of timberland and a sawmill highly useful for laboratory purposes, and carries on research programs in forest management and forest utilization.

EDUCATION AND TRAINING FACILITIES

The Forestry Department offers a full curriculum leading to the Bachelor of Science degree, with excellent classroom, laboratory and library facilities for all academic work.

In addition to the usual program of four academic years, the Forestry Department carries on a 10-week summer camp program which forestry students normally take following their sophomore year. The summer camp is located at the Ford Forestry Center of the college, a tract of nearly 4,000 acres located about 40 miles southeast of Houghton.

During the summer camp, instruction is given in the several phases of forestry which cannot be treated adequately in the field laboratories during the regular school year. Accent is placed on timber cruising, forest type mapping, timber marking for partial cutting, log scaling and grading, forest land subdivision, and allied work.

Located within one-half mile of the main campus is a college-owned 524-acre tract of oak-sugar maple timberland and open land, much of which has been utilized as pine plantations. Additional plantings are made in this area each spring. A part of this land is reserved for the College Arboretum.

The college also owns additional tracts of virgin and cutover timberland more distantly removed from the campus.

A rustic lodge, located in a 20-acre wooded tract along the banks of the Otter River 25 miles from the campus, is maintained by the Forestry Department for use as a center for student activities throughout the year. Use of the lodge by forestry students is encouraged; it is believed that such camp-life experiences yield excellent lessons in social development of the students and in their maturing to more responsible citizenship.
The Forestry curriculum provides a broad academic program including English, mathematics, chemistry, physics, economics and geology. Specialized forestry courses include botany, zoology, soils, silviculture, forest pathology, logging, aerial photogrammetry, wildlife management, forest law, and forest management. Each student also has an opportunity to schedule several elective courses during the last two years of his studies. Enrollment in the Army or Air Force Reserve Officers Training Corps Program is optional.

RECREATIONAL OPPORTUNITIES

Hard work is not the only outlook for the Tech forester. Since the main campus is located deep in Michigan's north country, the out-of-doors man has ample opportunity to enjoy good hunting and good fishing. Large and small game are plentiful, and excellent fishing may be enjoyed in the many lakes and streams of the surrounding country.

Winter sports, particularly skiing on the college-operated ski slope, and skating at the college's indoor rink, are popular. Snowshoeing is another popular sport.

The Michigan Tech Forestry Club is one of the most active organizations on campus, sponsoring many recreational activities throughout the school year. All foresters are encouraged to join the club, which asks a nominal membership fee. Some of the highlights of the club's fall activities are the "Freshman Welcome", a "buck shoot" during deer season, the "Lumberjack Ball", an all-college dance sponsored by the club, and a venison "bouillon" following deer season. Spring highlights include a "smelt feed" and "farewell" banquet honoring the graduating senior foresters. Winter activities are centered about the all-college "Winter Carnival" with its snow statue, skit and athletic competition. Preparation of this publication, the "Michigan Tech Forester", is another project of the forestry club.

The club participates in many intramural sports, and prepares exhibits for the Engineering Show held every second year.

Forestry students exhibit their prowess in the various arts of forestry work, such as sawing, chopping, pacing, tree climbing, log-throwing, timber estimating and log birling, at the spring field day held at the Otter River Camp, with competition between classes.

Throughout the year, all club members are encouraged to use the facilities of the Otter River Camp.
Forestry Department Shows . . .

RAPID GROWTH IN ENROLLMENT

The 1958-59 school year has been one of significant growth for the Forestry Department at Michigan Tech. Forestry enrollment at the beginning of this academic year made a sizeable increase over that of the preceding September, climbing from 94 to 116 at the Houghton campus. This moved the Forestry Department from eighth to sixth ranking in number of undergraduates among academic departments at Tech, and was the fourth largest numerical increase among departments.

The Department's growth in freshman enrollment has been still more significant this year. The number of forestry freshmen increased from 34 in September, 1957, to 50 last fall, placing the Forestry Department second among departments in numerical increase of freshmen students.

Our Sault Ste. Marie branch is likewise increasing in student numbers with over twenty students enrolled in Forestry at the Sault during the Winter Term. A distinct loss to the college will be Dr. Edward Sturgeon's leaving for Humboldt State College, Arcata, California, to continue his teaching efforts at that institution. He reports there this fall. A replacement for Ed will be announced in the near future.

The Ford Forestry Center at Alberta continues to grow with the construction of two more student dormitories planned to start this summer. You will recall that one dormitory was constructed a year ago and first occupied last summer. With a capacity of twelve students each, they will give us room for an additional 36 students to meet the needs of our growing summer camp enrollment expected to hit the figure of some fifty students by June of 1960.

Jobs continue favorable for our graduates with government service predominating as the main choice for openings for the men. Although this year's graduating class numbers only 19, it possesses qualities which will be heard from in the future.

Current indications point to a further growth of department personnel during the next academic year. Thus the Forestry Department continues to solidify and improve its position as a major curriculum at Michigan Tech and as a vigorous school in the field of professional forestry education.
Early in 1958, a new dormitory was completed at the Ford Forestry Center and students attending Forestry Summer School were quartered in it. The dormitory, which is located just south of the dining room, is a beautiful, roomy structure, designed to accommodate 12 to 16 students. The 25 by 46-foot building encloses four 10 by 16-foot bedrooms and a 14 by 25-foot study. Hardwood panelling, all of it made from lumber sawn at Alberta, covers the walls. Elm panelling was used in two of the bedrooms, while hard maple and yellow birch panelling was placed in the remaining three rooms. The exterior is covered by 8-inch native white pine drop siding to match the other buildings of the summer school group.

Work will begin this spring on another dormitory of the same design as the first. Eventually it is planned to have three dormitories located in an arc, the focal point of which will be the service building. Thus showers, toilets, and wash basins will be within 150 feet of all buildings. The service building now provides laundry facilities for students. The second dormitory may be ready for occupancy as early as the summer of 1959. It must be completed for 1960, however, to be ready for the large class expected at Alberta then.

Kitchen and dining room facilities will be much improved this year. The dumb waiter connecting kitchen and dining room is installed. To facilitate food service further, a self-serve counter has been built in the dining room. It is safe to say that Michigan Tech foresters have as fine facilities at the Ford Forestry Center as can be found at a summer camp anywhere.

In other directions the Center’s program also has moved forward. Access to most parts of the original 1,703 acres has been rendered relatively easy. During the past year over ten miles of road were brushed, while nearly two miles of road were graded and graveled. A new road built by the Michigan Department of Conservation across the Baraga Plains gives ready access to that portion of the experimental forest.

In the Center’s sawmill over 100,000 board feet of lumber was sawn. All of the logs were produced in experimental cut-
SENIORS

George F. Lehrer
Black Creek, Wisconsin

Alan G. Olson
Jones, Michigan

Robert L. Sa'dak
Iron River, Wisconsin

Charles Stadelman
Arlington Heights, Illinois

Peter A. Theisen
Warren, Michigan

Gary F. Tucker
Sault Ste. Marie, Michigan

NOT PICTURED:
Ronald H. Haug, Glencoe, Illinois
Donald G. Nickle, L'Anse, Michigan
Robert J. Utter, St. Ignace, Michigan
Orville J. Vanderlin, Norway, Michigan
Activities of the...

FORESTRY CLUB

Officers of the Forestry Club for the current school year are, left to right: Richard Ford, secretary-treasurer; Peter Theisen, chief forester, and Gary Keppen, assistant chief forester.

'BIG BROTHER' DAY

The annual Freshman 'Big Brother' Day was sponsored by the Forestry Club of Michigan Tech on September 27 at the Otter River Camp near Elo. Upperclassmen were assigned freshmen during the week, whom they were to introduce to the camp and club members.

Sharply at 1:30 everyone gathered at Mr. Ed Siivola's nearby farm for the clay pigeon shoot. Using the trap for the first time since it was purchased, the members were surprised at the speed and distance the pigeons were thrown.

The shoot was run as a contest, with the winners of each group facing each other for the championship. The grand winner was freshman Ralph Hewitt, followed closely by Prof. Gene Hesterberg, Pete Theisen, and Jim Rye.

The pistol shoot dominated the next phase of activities. Freshman Bob Miller showed the vets, including perennial winner Prof. Hammer Steinhilb, how to shoot, and came in first.

Then on the scene came the boys with bows and arrows. Don Hansen showed the results of much practice this summer, barely nipping runners-up Gary Keppen and Ron Scott.

At about 4:30 a stampede of wild horses hit the kitchen door and very shortly there was no food left. With full stomachs, a cedar log used for birling was brought to drydock, and many weary shoulders, feet, and minds rested themselves on the balsam

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BASKETBALL

In basketball, the Foresters went all the way to win the intramural championship. The season's league record was eight victories and only one setback. Then followed four straight playoff wins. The final game was a thrilling triumph by one point in overtime. The champs had Don Hasler and Elmer Richoff at the guards, freshman Bill Hillstrom at the pivot, and Bob Utter and Al Olson, the high scoring twosome, at forward. Doing a capable job in relief were Dave Norton, Ray Theiler, and Dan Matero.

VOLLEYBALL

The Foresters reigned as volleyball champions this year, boasting a record of 18 victories and no defeats in intramural competition. Two successive victories over Theta Tau Fraternity in the championship playoffs climaxed the season.

Members of the championship team were Frank Dufour, Gary Tucker, Bob Utter, Gary Keppen, Al Olson, and Bill Hillstrom, with Floyd Marita and Ray Theiler as capable substitutes.
A Mighty Push in ...  

WINTER CARNIVAL, 1959

The Forestry Club put on a mighty effort in its participation in the Tech Winter Carnival of 1959. For the second consecutive year, the club took part in Class A competition, vying with the college fraternities for honors in all events.

The major accomplishment of the club was its snow statue, which won second place honors. Although nosed out by one of the fraternity statues, the Forestry Club entry unquestionably was one of the finest in artistry to been at Michigan Tech in many years. The Snow Statue committee consisted of Bob Wood as chairman, with Walt Cook, Frank Dufour, Tom Nygren, and Leon Kabat. Loren Woerpel was a technical assistant. Many other Forestry Club members contributed hundreds of hours of work in building the statue, which represented a scene from the motion picture “Around the World in 80 Days”, theme of the 1959 Winter Carnival. The statue depicted a Sioux Indian village during the attempted burning at the stake of Passepartout, the valet.

Although the club did not score in other Carnival events, it competed strongly in many. In the skits, the club’s entry, a humorous takeoff on Shakespeare’s “MacBeth”, was rated one of the best in staging and acting. Members also competed individually in athletics such as snowshoeing and ice skating, and a team represented the club in the dog-sled race.

The Forestry Club’s candidate for Winter Carnival Queen, Elaine Ryty of Hancock, a student at Suomi College, added much to the prestige of the club as its charming and talented entry. Elaine is 18 years old, and has blonde hair and hazel-green eyes. She stands five feet, six inches tall.

Elaine, along with eight other queen candidates, made appearances on radio, TV, and between skits at

Elaine Ryty, left, represented the Forestry Club as its candidate for queen of the 1959 Winter Carnival.
Competitors in the trap shoot contest, above, enjoyed an afternoon of sport during the Freshman Welcome festivities at the Otter River Camp.

logs of the fireside square. A session of bull, nonsense, and much fun followed.

Surely, this was one of the more successful Big Brother Days, the measure of success being the tiredness, friendliness, and happiness in the boys as they piled in the cars to go home.

—Richard Ford

The chow line was the most popular place of the day following an afternoon of strenuous activities. The foresters, some of whom are shown below, devoured mountains of potato salad, and hot dogs by the score.
Renovation Continues at . . .

Otter River Camp

Things are picking up down on the Otter, seems like a fella can’t go down there anymore without running into some of the Tech variety of stump-jumper. The cabin has been heavily used during the hunting season as well as in the spring. Many Foresters took part in organized rabbit hunts at camp this winter; in fact hardly a weekend went by without a hunt. Many snowshoes were bagged and much bragging done by the successful hunters gathered around the cabin fireplace in the evening after the hunts. Enough work has been done on the cabin that it is easily heated even during the coldest weather.

The spring of ’58 was an eventful one at the Otter River Camp. Work was continued on the replacement of the decayed logs with red sandstone. Also the decaying flooring and joists in the kitchen and in two of the bedrooms were replaced with sound new material. A new sink was installed in the kitchen and also a drain from the sink to the cut-off going around the Island.

In the fall the road to the camp was graded by the Houghton County Road Commission and the cabin was winterized by hard working forestry students.

Six double bunks have been added to the cabin furnishings to provide added sleeping facilities for club members.

Projects carried out this spring were continuation of the foundation work and laying of a concrete porch floor. The storage shed was cleared out and its rotted floor torn out to be replaced with a sand floor.

Other work planned is the construction of a retaining wall to arrest the erosion taking place along the bank of the Otter River next to the cabin, replacement of the remaining rotten joists in the cabin floor, and construction of a suspension bridge across the river in order to make

Pete Theisen does some touching up of the roof at the Otter River Camp.
The Forestry Club's snow statue, above, merited high praise from the thousands who saw it.

at the Kerredge Theater. The night of the coronation revealed the winner to be a beautiful Texan named Lee Schirmer, who

Peter Theisen, right, Forestry Club chief, receives the club's plaque for second place in snow statue competition, Class A. Presentation was made during the Carnival Ice Show.

Members of the Forestry Club skit cast emote on the stage of the Kerredge Theater, Hancock, in presentation of a parody on "MacBeth".
The Foresters' dog-sled team strains to shouts of encouragement from the passenger "dogs" during the race.

was sponsored by Wadsworth Hall.

Elaine was a guest at the Forestry Club Senior Banquet and was presented an appropriately engraved silver tray.

The club held its own beard judging contest in addition to that conducted by the Winter Carnival, with Gary Keppen's auburn-hued face foliage judged tops among the foresters.

Gary Keppen, left, sprints over the snow while representing the Forestry Club in the snowshoe race.

Finalists in the Forestry Club's beard judging contest, left to right: Peter Theisen, Gary Keppen, Loren Woerpel, and Richard Ford, are scrutinized by Dr. Gene Hesterberg, one of the judges.
The Senior Banquet, social climax of the forester's calendar, was another memorable affair this year—for those who could make it upstairs to the Douglass House dining room. Approximately 65 foresters, their wives and guests gathered on May 12 to enjoy a delicious T-bone steak dinner.

The after-dinner program included presentation of a beautiful silver tray to the Forestry Club's candidate for Winter Carnival Queen, lovely Elaine Ryty of Hancock, who was a guest of honor at the banquet. Other guests of honor were Dean and Mrs. Leo Duggan, and Mmes. J. R. Van Pelt and Frank Kerekes.

Newly-elected club officers for the next school year were announced by Master of Ceremonies Peter Theisen, retiring chief forester. They are Loren Woerpel, chief forester; Bob Wood, vice-chief; and Leon Kabat, secretary-treasurer.

Fred Wilson, former state forester of Wisconsin, lecturer and consulting forester, delivered the main after-dinner speech on the subject of the history of the forestry profession. Mr. Wilson discussed the leaders in the field of forestry from medieval days to the present century, with emphasis on the foresters of central Europe.

Through his talk, Mr. Wilson explained how history has repeated itself in various parts of Europe and in America, with forest exploitation and destruction followed by the development of managed, productive forests. Americans can learn much from European forestry, he stated, and European foresters have benefitted from American experience as well.

Foresters should be proud of their heritage, he emphasized, since the profession has developed through the efforts of many far-seeing and self-sacrificing leaders throughout several centuries, providing the foundation of knowledge upon which further advances can be built.
Junior Class Wins . . .

1959 SPRING FIELD DAY

The Forestry Department’s annual Field Day was held the afternoon of May 7 at the Otter River Camp. Fifteen events were scheduled but due to the delay in starting only nine were completed.

The bolt throwing contest was won by the Seniors only because Tucker and Dufour were more consistent in heaving the stick than the Freshmen for a maximum of 33 feet each. Franzen threw it a total of 34 feet but after averaging best throws with his partner, who did fairly well for his first try at this, brought the Frosh third. Summer Camp paid off for the Juniors and Seniors who tied for first in the tree estimation, but didn’t in the pacing, while Matero representing the Freshmen brought them their only first place by almost verifying the chained quarter mile. There are several reasons why the Juniors took first in cross cutting and the Seniors last, but the victors just call them excuses. Pulling that saw back and forth takes some skill and stamina as every one found out: and while you are doing it, advice from the observers is hard to follow. Keppen and Kwiatkowski seemed to be fighting the saw and each other all the way but the effort paid off. In chopping, the ax makes the difference in the number of swings needed to divide that spruce pole. Kwiatkowski’s nine blows set the position for the Class of 1960 which also took top honors in log rolling, the ax throw, and the fishing contest.

The final totals placed the Juniors first with 37 points, the Seniors second with 25, and Sophomores third with 12, and finally the Frosh with 7 points. This is the first time in four years that the Class of 1959 has been defeated although last year it was very close.

At the close of the events everyone helped themselves to the large quantities of hotdogs, potato salad and cake. A few of the early eaters missed the chocolate milk conveniently hid in the back of someone’s car. About this time most of the Foresters were outside and were surprised when a local resident came downstream to the cabin carrying a nice 5½ pound steelhead. As could be expected, the truck on the return trip lost a tail gate. That half-inch rope must not have been strong enough.
Tech Foresters Attend . . .

FORESTERS' CONCLAVE

The foresters of Michigan Tech launched a new activity this spring by participating in the intercollegiate Foresters' Conclave held at Minneapolis, Minn., May 9. Other schools represented at the meet were the University of Michigan, Michigan State University, Purdue, Iowa State and the University of Minnesota. This was the first year Michigan Tech received an invitation to participate in the affair.

Main purpose of the event is to provide an opportunity for forestry students from the various accredited forestry schools in the upper Midwest to become acquainted. A number of contests are held to add competitive spirit to the conclave.

Although Michigan Tech did not walk away with top honors, our ten-man team made a good showing and gathered much valuable information to help future competitors from the Copper Country. Tech foresters scored in the following events: Pete Theisen, third in dendrology; Frank Dufour and Gary Keppen, first in log rolling; Theisen, first in match splitting; Dufour, third in pole climbing; and Jim Falge, third in tobacco spitting.

Standings at the close of competition were in the following order: Michigan, Purdue, Minnesota, Michigan State, Michigan Tech, and Iowa State.

RIFLE RAFFLE

The Forestry Club's annual rifle raffle was held in conjunction with a buck shoot this year. Excellent prizes were awarded the lucky winners who bought a chance on the rifle raffle. First prize was a 30-30 Winchester rifle. Second and third prizes were a 12 gauge single shot shotgun, and a pair of insulated boots.

The idea of a buck shoot open to all students, faculty and other employees of M. C. M. & T., was something new on campus. Due to the special doe season this year, the buck shoot was quite tempting to anyone lucky enough to get a special permit. The club offered a prize of $10 for the largest buck, $10 for the largest doe, $5 for the smallest deer of either sex, and $5 for the largest bear. When the smoke cleared, and all results turned in, prizes went for a 199 pound buck, 190 pound doe, 54 pound buck, and no bear was reported taken.

—Gary Tucker
**Action-Packed Program . . .**

**FORESTRY SUMMER CAMP, 1958**

The 1958 session of Forestry Summer Camp started on a quiet, warm morning in mid-June. After the customary roll call and discussion of rules and regulations, quarters were assigned and linen issued. The crew was split into two groups, the “house” and the “barracks”, a rivalry which was to stand all summer.

The following morning instruction on compassing and pacing was initiated on the power line road. This elementary work was quickly mastered with little difficulty except for one small incident. We were required to find the center quarter-corner of Section 18 in Alberta from the north section line. Instructions complete, able foresters started out to be followed at a more leisurely pace by their instructors.

When the instructors arrived in Alberta they found the entire crew peacefully asleep on the grass in the center of town. It seems that the center in Alberta has never been marked. Needless to say by the time this fact was fully verified it was too late to start another problem, and with sly grins the crew retired to await another of Mrs. Erickson’s tasty evening meals.

Traversing was the next phase of training, and here again only one small incident marred the work. Practice was held in various brush, swamp and timbered areas, but the final exam was held on U.S. 41, complete with a construction zone obstacle course.

Work progressed smoothly through land subdivision (they had been saving the swamps for this part of the course) and log scaling. Overheard one day on the log deck, while learning Hammer’s rules of thumb for scaling, was the remark: “I don’t know about that end, but this end is balsam.”

Type mapping was completed with some excellent maps turned in on the final problem. While cruising Section 19 an interesting comment was heard as the crew was climbing off the forestry truck. It is unfortunate that Vern and Gene, still in the cab, did not hear the remark: “They won’t find me today—I ain’t even working in that forty,” as several disappeared into the timber.

Marking northern hardwoods and a large final problem which tied together many loose ends finished our summer camp training.

Recreation at Alberta came in many forms. One of the most popular sports was softball. The house and the barracks played
numerous games, but the main objective was to beat the Baraga Correction Camp teams. The prisoners had several teams and it was only after they had lost some of their better players that the foresters finally beat the first team. Surprisingly, though, the foresters did beat the prisoners at touch football. Our flashy backfield was too much for the heavier, but slower, prison team.

Fishing was fairly popular, with everyone keeping his eye out for the Conservation Department’s truck used for stocking Ford Lake. Fishing was pretty good for a day or so after each of the occasional visits paid by the truck.

The fellows were quick to discover the attractions of that fair city, L’Anse, and especially the Northwood’s Hotel (better known as “Beasely’s”), where foresters gathered around the tables to discuss the lighter side of life.

The summer camp story would not be complete without those special incidents, sad or humorous, that one remembers. Here are some of them:

Poor weather, rough topography, the unforeseen, and a sharp axe can lead to . . . a vacation in the L’Anse hospital! Don Hanson enjoyed his vantage point in the hospital corridor during his week’s stay.

(F:i:d. note—Hats off to Don’s two alert crew members, Mike Massie and Ray Theiler, for rushing him from woods to hospital in record time).

The bed-spring TV antenna that worked fine atop the roof for a short time, until Dr. Bourdo “suggested” it be taken down . . . That nice clean car which looked so shiny until—whoops! somebody had an accident . . . The guitar revival meeting Hammer held in the Barracks—or was that a sick cat we heard? . . . The old story, “Let’s go into town for just one beer” . . . Paint fights, bad enough with soluable white but much, much worse when blue marking paint is the ammunition . . . Those timber cruisers in Section 19 who developed the art of sleeping with one eye open . . . The fellow who tried to prove he could put his

Forestry students learn the fundamentals of bulldozer operation as part of their summer camp instruction.
Don Hanson displays cast encasing his foot following a stay in the hospital to recuperate from a mishap with a sharp axe.

hand through a window pane without cutting himself... A certain bar made of mahogany, according to an increment boring test... Learning the fine art of maneuvering professors into the stream of a fire hose... That favorite expression, "We have to develop either square trees or round boards"... The wooden door that will never be the same after its encounter with some wild soft-ball pitches.

In closing it must be said that the students did some very excellent work under the very capable instruction of their professors, Vern Johnson, Hammer Steinhilb and Gene Hesterberg, and that Eric Bourdo and his staff helped make the summer both pleasant and worthwhile.

Forestry Activities at...

THE SAULT BRANCH

Chief's Message

The Sault Branch foresters have been very active during the fall and winter terms in club affairs, and the spring term activities program includes an ambitious list of events. When the aspens were yellow, the members turned out for a chili feed at the cabin to winterize the cabin with insulation for deer-hunting season. The last weekend of October saw a good number of
the fellows off on a trip to the Seney Wildlife Refuge with a pack of U. S. Choice T-bones.

Pete Adams donated two quarts of maple syrup for a pancake dinner, which was held in January at the Chief's summer cabin near Brimley, Michigan. The dinner was complete with pork sausage, ham, and milk. Some of the foresters spent the afternoon practicing for the annual snowshoe race, which is held during the week of the Winter Carnival, by chasing the elusive snowshoe hare over his domain.

The Sault Branch Forestry Club took first honors this year for the snow statue it built depicting a forester in a canoe paddling toward a waterfall in the background.

In March the club held a steak fry at Tahquamenon Falls. Approximately 20 foresters attended and cleared their addled minds by skiing and snowshoeing through virgin hardwoods. The steaks were fried over open fires in the snow and were “the most”.

Many activities were scheduled for the spring term, including a smelt dip, a Paul Bunyan Ball to raise funds which will be used to improve the club’s cabin near Brimley, Michigan, and the annual banquet.

—Lyle Hannahs, Chief

Members of the Sault Branch Forestry Club are pictured below. They are, left to right, front row: Glen Hare, Henry Franklin, Ed Hare, Martin Suhr, and Dave Kananen; second row: Pete Adams, Zachary Phillips, George Conway, Larry Battey, Bill Randall, and Dave Belgard; third row: Bill Morden, Karl Dullack, James Peck, Fred Clinton and Jay Wright.
Wildlife Research at . . .  
CUSINO WILDLIFE EXPERIMENT STATION

by D. F. Switzenberg, Director  
Cusino Wildlife Experiment Station

Game or wildlife should be thought of as a product of the land, just as are lumber from the forests or grain from the fields. The many species of game birds and mammals making up our wildlife resource are subject to the same natural forces. But unlike trees and farm crops, game surpluses cannot be stockpiled year after year. Game must be harvested annually or it goes to waste through starvation, predation, and a host of other natural factors. On the other hand, only so many units can be produced on a given piece of land. Wise utilization of the annual crop of deer, small game, and fur bearers is definitely good conservation.

It is only by unspectacular, painstaking research that we can get the necessary information to manage this valuable wildlife resource. Continuing strides are needed at specific locations, throughout the year, often year in and year out, in the outdoors and in the laboratory. A similar approach to fact-gathering long ago has been employed by the agriculturist at our well-known state experiment stations. The U. S. Forest Service and a number of state universities maintain similar organizations for investigation of timber resources and management. The wildlife experiment station is based on the same general idea.

Objectives of the Cusino Station and Current Research Projects:

The Cusino Station is the Conservation Department's northernmost game research center. Specific objectives of the Station are (1) to collect basic biological information on northern game animals necessary to an understanding of their management requirements, (2) to devise better range management methods, and (3) to devise more accurate and practical population and range inventory techniques.

Because of the current interest in deer and the pressing need for information necessary to management, present research is emphasizing studies on range requirements and herd productivity. Two of our most important continuing studies in this vein are the Deer Production and Range Study and the Deer Nutritional Study. The former is centered in a square-mile deer-proof enclosure in which the relationships of the deer herd to the land it lives on are being investigated.
Several important findings already have resulted from the enclosure study. Among other things it has demonstrated unquestionably that the size of a winter deer herd must be restricted by removal of surplus animals to maintain adequate food supplies. At the present time white cedar has been practically eliminated as a major food species in the enclosure, and several important hardwood foods have been reduced by overbrowsing or growing out of reach of deer. The vital role of adequate nutrition on reproduction has been clearly shown. When deer from a poor food area were introduced into the enclosure in 1952, production of fawns rose from 1.1 per doe the first year to 1.7 in 1954, evidently in response to better food conditions within the area. But by 1957, the range had deteriorated and fawn production dropped to 1.3 per doe.

Four years of controlled hunts in the enclosure, in which bucks, does, and fawns were taken, continued to demonstrate that as many as a third of the deer may be removed and the herd will “bounce back” the following year. This implies that in many parts of our Michigan deer range, taking a much larger proportion of the population than in the past would assure the largest possible replacement of animals as well as the highest sustained carrying capacity of the range. Another important concept resulting from these hunts is that deer, and especially bucks, are very difficult to see or bag, and are usually more plentiful than even an experienced hunter can determine by hunting.

Studies on the effect of malnutrition on fertility and reproduction of deer (Deer Nutritional Study) are continuing under controlled conditions in small pens. In addition to revealing the immediate effect of inadequate food supplies as shown by starvation losses in the spring, a number of previously less obvious results have come to light. Prolonged malnutrition in the winter and early spring, as well as in the fall, has profound effects on reproduction and fawn survival. Breeding and consequent gestation may be delayed, fawns born may be undersized, and milk production may be inhibited. Serious losses of fawns have occurred in malnourished test does in which the milk supply failed or was delayed. This results in death of the fawn very soon after birth since the fawn requires milk almost immediately. Summer range studies, in which the test animals are placed in a 40-acre enclosure, have proven very useful in supplying quantitative information on production and utilization of summer food, and on the nutritional requirements of deer at that time of year.
Studies of deer range have shown that deer use some areas intensively but do not frequent others with apparently better food and cover. For better understanding of the actual requirements of deer in winter, several representative habitats, some with deer and some without, are being studied in the field. Tentative results of this investigation show in general that density of cover, by providing adequate protection from the weather, is more important in attracting deer than is a good food supply.

In 1957 and 1958, "pellet counts" to determine deer populations were applied in the Upper Peninsula on a large scale. Application of this new technique on a regional basis was made possible to a large extent through considerable prior field-testing by Station biologists in several areas of known deer populations, notably in the square-mile enclosure and smaller controlled-feeding pens. In both 1957 and 1958, a field survey was conducted after a master plan of operation had been devised by game biometricians. Other work has been done on a practical means of gauging deer food supplies through further tests of various browse evaluation methods.

Although deer research has occupied most of the Station's attention to date, other game and fur bearers have not been neglected. A three-year study of sharp-tailed grouse was completed recently which thoroughly tested several trapping and inventory methods and provided much data on the birds' habitat requirements. During the past few years the Station has aided the Department's game disease investigations by serving as a collecting point for beaver and muskrats infected with a disease recently identified as tularemia.

The best ways of managing the land for timber and wildlife are being studied through experimental cuttings to find out how various logging practices affect the growth of trees and shrubs consumed as food. In cooperation with the management section of the Game Division, areas of deer and grouse cover have been burned experimentally or treated with herbicides in order to devise practical and cheap methods of maintaining sustained food supplies through sprouting of woody plants or creation of necessary openings in the forest.

One of the outstanding studies made at the Station over the past few years was a comprehensive management and life history study of the black bear. This unique game animal is annually becoming more popular with hunters and in recent years a group has been organized which hunts bears exclusively with dogs.
Michigan's deer herd can be maintained in better condition through improved management developed from research at the Cusino Wildlife Experiment Station.

Because of an increasing interest in the species and our almost total lack of the many facts needed for its management, a study was established at Cusino to supply the information so badly needed. An initial requirement in a bear investigation was development of efficient trapping and handling techniques, which would make it possible to mark and release animals for study of home range, movements, physical condition, and longevity, and occasionally to provide animals for special study. Through considerable trial and error, traps were designed and tested, and various kinds of anesthetics were utilized which could render these powerful animals immobile for convenient handling in the field and laboratory. Successful development of such techniques at Cusino has greatly spurred bear research, not only in Michigan, but in several other States which are now using our methods as standard procedure.

Another important game animal in the Upper Peninsula on which the Conservation Department lacks important management information is the snowshoe hare. As a result of this need, a three-year research project is now under way to determine something of its home range, mortality factors, reproductive potential, and especially its role as a competitor for deer food. We know, for instance, that it prefers many of the excellent deer browse species, and that it has marked effects on forest reproduction. From this standpoint a study of the hare should be of considerable interest to foresters as well as game managers.

The Station’s researches are being conducted by a staff of trained game biologists under the direction of the biologist in
charge. Cooperation with other state and federal agencies of similar purpose is being encouraged. The research program is financed jointly by Pittman-Robertson funds, and from the Department's Game Protection Fund derived from the sale of hunting, trapping and fishing licenses.

In carrying out a wildlife research program, considerable unskilled labor is needed to do various construction work, to maintain grounds and buildings, and to aid generally in field studies. To serve this need a Prison Work Camp was established nearby to house a crew of inmate trusties from Marquette State Prison. This camp is one of four operated by the State Corrections Department in the Upper Peninsula and has been very successful in providing an economical source of manpower for the jobs described.

Visitors Welcome:

Through the years the Cusino Station has attracted many visitors. Occasionally they appear to be disappointed at the few captive wild animals maintained on the Station grounds. It should be pointed out here that most of the Station's research is done in the field away from headquarters, and that not all studies involve direct observations of animals. There are, however, many facilities and techniques used in the work that Station personnel will be glad to explain to those interested. Tours through the administration building can be arranged by calling at the front office. A supply of literature reviewing the outstanding problems in northern game management and reports of some investigations is available at the office.

THE FORESTER

Who's that wild man, Mother, dear
Look, he knows us. Ain't he queer?
"Hush! Do not talk so wild,
He's your father, Dearest Child.
"He's my father! No such thing!
Father died 'way last spring!
"Father didn't die, my child;
He's been cruising the timbered wild.
In the winter he's no place to roam,
That is why he is coming home.
Kiss him, he won't bite you child,
All those forestry guys look wild."

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Re-introducing . . .

THE PINE MARTEN

by E. M. Harger and D. F. Switzengger
Michigan Department of Conservation

The pine marten (*Martes americana*) was at one time resident over most of Michigan. By the late 1920's it had become very rare, and by 1948 it was reported that “this splendid animal is probably gone from the state of Michigan, for none has been reported for the past twenty years.” Extensive logging and intensive trapping were probably responsible for the extermination of the marten in Michigan. By the early 1900's loggers had cut over most of the marten habitat. This certainly caused a drastic reduction in the marten population. The value of their pelts undoubtedly contributed to their final extermination. A pelt was worth approximately $200 in the early 'twenties.

Re-establishing the Marten

The Michigan Department of Conservation recently launched a program aimed at re-establishing the marten in the Upper Peninsula. Eight martens (five males, three females) were released in the Porcupine Mountains in the winter of 1955-56. Two were purchased from a fur farm near Perkins, Mich., and the remainder from Ontario.

In 1956 the Game Division reached an agreement with the Ontario Division of Lands and Forests, whereby we would furnish the manpower for an intensive live-trapping program and Ontario would provide equipment and technical assistance. Operations were centered at a point 220 miles north of Sault Ste. Marie in the Chapleau Crown Game Preserve, a region of high marten population.

In this manner we obtained eighteen martens for release in the Porcupines. We also obtained three martens from Ontario’s fisher-trapping project. Altogether we shipped thirteen males and eight females to Michigan.

Pine marten, left, has been extinct in Michigan for about 30 years before recent re-introduction to the Porcupine Mountain area.
The release site was a virgin stand of conifers in a remote area of the Porcupine Mountains State Park, in Ontonagon County. Because of the marten's strong homing instinct, we expect the adults to wander great distances, thus thinning out the introduced population. With such a small number, our best chance for establishing the marten lies with the females.

All adult females live-trapped should have been bred at the time of capture. In Nova Scotia three young were born in captivity in April, 1956. Everything else being suitable, we can expect small islands of martens to appear at unknown points where the females settle to give birth to their young.

Description of the Marten

The marten is long and slender, resembling the mink. Weights of males average nearly two pounds, and the females a little over one pound. Young animals attain adult size in three to four months. The feet are heavily furred, especially in winter, for travel in deep snow. The ears are relatively larger than those of mink and weasels. The bushy tail is less than one-third the body length.

Martens come in a variety of colors ranging from white to almost black. The head is usually lighter in color than the body. The limbs and tail are normally darker than the rest of the body. The throat and breast patch, of various sizes and shapes, and the median ventral strip, are generally yellowish-orange. We doubt that there is any seasonal color change.

Martens are capable of swimming, but are not as adept as mink or fisher. To refer to them as "arboreal" or "tree-dwelling" is incorrect. In winter they spend much time beneath the snow around wind-throws, lower tree limbs, stumps, etc.

Habitat of the Marten

Contrary to popular belief, the marten is not averse to human activity. We had 12 traps set near a dump less than 300 feet from the camp kitchen. The light plant and garage were 200 feet beyond the dump, which meant almost continual human traffic past the dump. We had another six sets in the vicinity of the barn. At these two sites we trapped seven martens.

There was a high population of martens in the trapping area. Cover was not dense. The spruce swamp sites resembled typical spruce bogs of Michigan. They were good stands but not as "dense and dark" as some cedar swamps or mature hardwood stands. In much of the area the canopy was only 40 to 50 per cent
Forest land typical of both the pine marten’s natural habitat in Canada and the Porcupine Mountain area of Upper Michigan. Marten also thrive in lightly to moderately stocked swamp timberland.

complete. Occasional popple, white birch, and cedar occurred throughout. The understory was chiefly tag alder and willow. Ground cover was mainly leatherleaf, labrador tea, bog rosemary, sphagnum, etc. Windfalls were abundant.

The upland sites were good stands of black and white spruce, with some white birch, jack pine and popple. Many lakes dot this area, and there is good interspersion with plenty of small openings. It is poor deer and snowshoe hare habitat. There are some moose, wolves, lynx, and a few fishers in the area.

The spruce swamps between Newberry and Shingleton in the Upper Peninsula closely resemble the habitat at the trapping area.

Most of us usually associate martens with vast wilderness areas. They thrive in these areas, but they do not require wilderness. It has been reported that 50 acres of suitable, though isolated, habitat contained between 10 and 15 martens.

Food Requirements

We believe that the marten is quite adaptable. To a certain extent its food depends on habitat, but the diet is so varied that martens can find food in nearly all types of suitable habitat that occurs in Michigan.

Food of the marten consists principally of small rodents, red squirrels, some snowshoe hares, and birds, with a considerable amount of vegetable material. Plant material eaten is mostly berries. Carrion is commonly eaten. In captivity they will eat practically anything. Martens were habitually visiting the dump in the trapping area to feed on garbage. Live-trapped martens in Alaska readily accepted bread, candy, cheese, jam, and peanut butter.
Future Prospects

In March, 1958, the release area was checked for signs of marten survival. In 40 miles of travel, five fresh marten tracks were found. None were caught in live-traps. It is believed that at least four and probably more martens were living within a seven-mile radius of the release site a year after the release.

The fact that the marten is not as strict in its habits and requirements as popularly believed is encouraging. We may some day have a considerable population of pine marten in the Upper Peninsula. It is even possible that the marten may become an important fur bearer in Michigan.


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