THE FORESTER

1954

VOLUME V

FORESTRY CLUB
DEPARTMENT OF FORESTRY

MICHIGAN COLLEGE OF MINING & TECHNOLOGY

HOUGHTON, MICHIGAN
FOREWORD

As a result of the combined efforts of the Annual Staff, Forestry Club, and faculty we present the fifth edition of the Michigan Tech Forester. The purpose of this annual is to outline our activities for the year, to represent the aims of forestry at Michigan Tech, and to give the prospective Tech Forester a perception of our Forestry Department and the curriculum offered.

J. Lockwood

THE STAFF

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Dean F. L. Partlo

Alumnus, teacher and colleague, Dean Partlo has completed his thirty-first year as a member of the faculty. He leaves Michigan Tech this year to become president of the South Dakota School of Mines and Technology, and in recognition of his many years of conscientious service, the Forester of 1954 is dedicated to him.

A member of the Class of 1923, Dean Partlo began his career as an instructor in the Department of Physics and Mathematics. He became head of the Physics Department in 1944, and Dean of the College in 1947.

He leaves behind him thousands of friends and a record of cooperative achievement for the College. May his new career of college president be as rewarding and as pleasant for his new friends and colleagues as were his many years among Michigan Techmen.
THE DEPARTMENT OF FORESTRY
at the
MICHIGAN COLLEGE OF MINING & TECHNOLOGY
Houghton, Michigan

LOCATION OF THE SCHOOL

The Michigan College of Mining and Technology is located at Houghton in the heart of the timber-producing and wood-utilizing district of the Upper Peninsula of Michigan, and of the Lake States in general. Because of this ideal location for teaching forestry, it has been possible to combine the advantages of class instruction with practical field work during the whole of the school year.

Forestry students at the College have the opportunity of getting their training in an area which has the most extensive stands of virgin northern hardwoods left in the Lake States. There are many thousands of acres of pine, balsam, spruce, and cedar which have never been logged. But there is, in addition, another side to the opportunities for the student. Not only can he appreciate and familiarize himself with relatively unexploited wilderness, but he also is able to see practical forestry at work. Three large private timber-owing companies in the vicinity have committed part or all of their lands to selective logging. Similarly, the nearby Ottawa National Forest is a vast study area of forest management on abandoned cut-over lands and in second-growth timber. Frequent field trips are taken to selected locations to study this practical forestry at first hand.

TRAINING GIVEN STUDENTS

The summer following the freshman year is devoted to a complete course in field surveying. During the summer following the sophomore year, a summer camp is held in the vicinity of Houghton and in the Ottawa National Forest. Here nine weeks of intensive instructions are given in those phases of forestry which cannot be treated adequately in field work during the regular school year. Heavy emphasis is placed on timber cruising, forest type mapping, timber marking, log scaling, and allied work. Experience gained in summer camp is an invaluable asset to the student when he takes a job.

The Calumet and Hecla Copper Mining Company has set aside a large tract of virgin northern hardwoods timber which the Forestry Department uses as a field laboratory for student instruction in practical management techniques. In addition, the College has contracted for, or owns outright, another 1200 acres of land in various northern timber types, and has set up a program for management of these lands.

It is recommended that the third summer be spent by the student in obtaining actual on-the-job experience with some federal or state agency or some private concern. A number of summer jobs with the U. S. Forest Service or the National Park Service are available through the Forestry Department.

Although emphasis is placed on giving the Tech forester all the advantages of practical "know-how", the curriculum is adjusted to provide, in addition, a broad, well-rounded background in the field of forestry. The student is required to take courses in soils, silviculture, forest pathology, wildlife management, logging, range management, forest law, and many others, to enable him to comprehend the complex and finely interwoven problems which face the forester. He is taught to appreciate and to understand the problems of the
game managers, the soil conservation men, and other forest users so that he can truly make the forest provide the greatest good for the most people.

THE JOB OUTLOOK

The outlook for jobs in forestry is good. Whereas a decade ago the majority of forestry openings were with agencies of the state or national governments, today most of our graduates find employment in private industry. The forester is coming to be recognized as an indispensable part of every successful forest enterprise. Resources of virgin timber are rapidly being exhausted, and second-growth timber has become increasingly more important as a source of supply. The technically trained forester is the key to maintaining that timber supply.

RECREATIONAL OPPORTUNITIES AT THE COLLEGE

Hard work is not the only thing to which a Tech forester can look forward. Located as he is in the deep north woods, the out-of-doors man has an unparalleled opportunity to avail himself of good hunting and fishing. "Big Game" is abundant. Deer are very numerous. Black bear are fairly common, and an occasional moose is reported in the upper portion of the Keweenaw Peninsula. The last stronghold of the timber wolf in Eastern United States is in the virgin timber of the Misery Bay district less than 30 miles from Houghton. Small game—snowshoe hare, ruffed grouse, sharp-tail grouse, etc.—is plentiful. Some of the best trout streams in Michigan are within easy driving distance of the college. Excellent wall-eye, bass, and pike fishing can be had on Portage Lake.

The headquarters of Isle Royale National Park is located in Houghton. The park itself, a virgin wilderness where moose is the most common big game and the fishing must be experienced to be believed. It is most easily reached by boat from Houghton. Every summer a number of Tech students are employed on the island.

Forestry students at the College have organized themselves into a very active Forestry Club. Each year the club sponsors a "buck shoot" contest and a "trout fishing derby." The club is very active in campus affairs and is very successful in prize competition during the school's winter carnival. The Forestry Club's "Lumberjack Ball" is one of the most unusual and most successful social functions of the school year.

GENERAL INFORMATION

The fall of 1954 indicates the largest incoming freshman class in the history of the Forestry Department. To handle the student load, a faculty of 7 members comprises the instructional staff. Expenses for the student are relatively low. No tuition is required for the Michigan resident; the out-of-state student pays $60 per year for tuition. Board and room averages approximately $500 per year, but the enterprising student can get by on less. The veteran can enroll under the G.I. Bill of Rights. Completion of the four-year Forestry curriculum entitles a student to a degree of Bachelor of Science in Forestry. Two study options are offered. The majority of students elect the Forest Production option. A Wood Utilization option may be elected, however, as an alternative.

Men interested in enrolling in Forestry at the Michigan College of Mining and Technology should contact Mr. L. F. Duggan, registrar. Complete details will be furnished upon request.
THE FACULTY

PROFESSOR U. J. NOBLET
HEAD, FORESTRY DEPARTMENT
INSTRUCTOR
ROBERT T. BROWN

On Leave of Absence
ASSISTANT PROFESSOR
ERIC A. BOURDO

ASSISTANT PROFESSOR
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The Michigan Tech Campus
First Row (l-r) J. Watson, J. Van Duesen, J. Byrd, D. Whalen, C. Hauge, F. Schunke, G. Ewert.

Middle Row (l-r) P. Haarala, J. Waldvogel, K. Robert, L. Golin, R. Bunster, L. Leithner, A. McCauley.

Last Row (l-r) J. Uhazi, P. Menne, W. Schwarting, S. Freese, C. Peterson, D. Clemens.
Front Row (l. to r.) G. Sheppard, C. Johnson, P. Gottwald, K. Holmes, W. Clark, A. Shaffer, D. Wagener.


Last Row (l-r) J. Daniels, J. Dunn, S. Arducant, D. Bullock, D. Blankenship, N. Sloan, R. Clever, R. Hitesman.
... it might be said that summer camp started out with a bite—those bloody black flies and mosquitoes really welcomed us that first day—and most every day as far as that goes... Yep, the department's big Dodge truck carried its first load of prospective foresters out to the power line road on June 3 where we learned the art of compassing and pacing. This began an eventful summer... don't recall if anyone got lost that day—at least no one read their compass backwards, running NE instead of SW like Smart did that one day on a traverse problem a year ago—he wasn't seen until about 5:00 o'clock that evening when somebody spotted him wearily trudging up M-26 for town. Although everyone else got a big laugh—all he got was a zero for the days work. Of course, no one could lose his way purposely like Hallisy and the boys could—funny how one of them always happened to have a pinochle deck with them... then there was that day of the test on the use of the traverse tables—rained like the devil all day—Doc Brown took a wrong fork in the road and when he found out—boy, you should have seen him barrel it. Vern and Hammer weren't too happy that morning either, getting substantially mosquito-bitten waiting for the students to come along... speaking of rain, we'll never forget that ride back from the Ottawa Nat'l Forest after a pleasant day of marking timber. Those boys from the Forest Service sure had a good area for us to work in—800,000 acres of it. There were plenty of pleasurable moments though. Hammer still doesn't know who painted his boots... too bad fellows out there wouldn't chip in for liquid refreshments or something—we earned it all right—seems there is no paragraph in Forest Service regulations covering such purchase orders... there were always a couple of guys running around after butterflies or looking in the log decks for beetles and ants, for Vern's S-62 class in the fall... boy, the lunches some of the guys pack. Leach always had a carrot at least—then again, big Dick ate more than the rest of his crew put together. Even Susie (Hammer's dog) wouldn't eat some of the stuff the guys gave her... Matty had a hard time explaining about his chin one morning—seems he fell into a grease pit across from Harry's one nite and split it wide open... Smitty's jeep sure took those muddy roads nicely—they were out of sight when the blue Dodge bogged down and we had to push it... then that yellow paint all over the rear of the truck while coming out... guess this Nelson Paint Co. has a good idea... still can't figure how some of the men type-mapped the area around Lake Perrault—every time you looked around they were either swimming or basking in the sun... as usual, women were scarce, so some work was accomplished... Vern said one guy should brush while we were running lines with the Jacob's staff compass up on the hill—don't think Shaner ever knocked over anything bigger than 3/4-inch, but the men in Kressbach's crew cleared a strip wide enough to run the truck through... some one established an
approximate 1/16 corner with part of a fine 10 inch balsam fir—
must have been axe-happy Schwarting... think Hammer is trying
to pull something over on us. We found his name on an old B.T. in
the Ottawa dated 1909—no kidding though—we found plenty of
corners with his initials on. Lucky for most of us he remembered
that one section corner was in a certain gully—otherwise we’d still
be searching—couple of the crews never did get near it—they ended
up looking for some non-existing quarter corner ½ mile east. Some
really thought they had something to gloat about when they traversed
right on to some far away section corner. Too bad they had to find
out after that it was an irregular section and by coming out “right
on’ showed they were in great error... was really a swell summer
though and although most of us were glad to get it over with, don’t
think any will ever regret the work experiences... (besides that, it’s
required for graduation).

"Chin up, Alex! We’re nearing some place—
the tracks are getting heavier all the time."
FORESTRY CLUB ACTIVITIES
Sault Branch

STANDING, left to right: Prof. Viggo Thomsen, Ron Locke, Ron Shulters, Ted Vogel, Dick Yankee, Ralph Colberg, Bob Pahl, Dave Lee, Bill Kallio, Prof. Edward Sturgeon.

KNEELING, left to right: Clarence Kalmer, Chief, Joe Villemure, Jack Conrad, Dick Bird, Roger Edmonas, Tom Smith.

SITTING, left to right: Bill Maki, Sec.-Treas., Ken Bodedl, Ass't Sec.-Treas., Charles Hann, Bruce Whitmarsh.

SANS PHOTO: Russell Baker, Ron Ladd.

CABIN PROJECT:
A year ago the Forestry Department received two forty-acre parcels of land from the Michigan Department of Conservation to be used as a school forest. The Forestry Club immediately expressed the desire to build a cabin on the tract southwest of Brimley which lies on a branch of the Waiska River. Accordingly, last year's club under Chief Forester Wayne Leitner, an active Forester at the Houghton Campus, voted the earnings of about $90 from the basketball game concession and all dues money to be spent starting a cabin.

Last fall the Club hired a tractor operator to cut a woods road from the county road across an adjoining forty to the cabin site. The Maintenance Department of the Sault Branch poured a concrete floor and sill for the cabin. Selected, edged slabs were purchased from a
Pickford mill this winter and are seasoning in the basement of the Forestry Building.

Faculty members and club members have worked to secure other building materials from the old officers' club on the Sault campus. The knotty pine paneling and two-inch lumber for framing have been salvaged. This spring the Club plans to hold a cabin-raising bee with faculty help.

GYM CONCESSION:

This is the second year the Club has shared the concession in the gymnasium with the M.C.M. Club (Geologists). However, early in the season the M.C.M. Club dropped out and the Foresters carried on alone and netted a little over a hundred dollars. No doubt this year's club will vote the earnings to the Cabin Fund.

ANNUAL VENISON BANQUET

The annual venison banquet was held on Thursday evening, December 10, 1953. Chief Kalmer shot his buck and supplied the venison in ample amount. The speakers' table attested, as thirds of every dish went by (including a platter of pork chops) that they had never seen such a display of food—and the venison was superbly tender. (Did it have spikes, Chauncey?)

Guests of the Forestry Club included our resident director, Professor Harry L. Crawford, Mr. Wesley Pahi, Superintendent of Roddis Lumber and Veneer Co., Soo, Canada, Mr. Martin J. Sheahan, Woods Supt. of Roddis Veneer Co., Mr. Maurice Day, Director of the Dunbar Nursery and Experimental Forest of Michigan State College, and Mr. Bruce Elliott, Ranger, Roco District of the Marquette National Forest. Mr. Sheahan spoke on requirements of foresters needed in private industry and Mr. Day spoke for public forestry.

The Bunkhouse Players of the Club ably produced "The Tragic Demise of Dan McGrew" in a realistic barroom scene with Chief Kalmer narrating. The guns really blazed and persons in the audience were properly jolted out of their seats.

Each annual banquet gets better!
SNOWSHOE HIKE

On January 31, 1954, fourteen of the twenty-two club members went on a snowshoe hike into the Tahquamenon Falls area. The area was freshly blanketed by an unusually heavy snowfall and the men witnessed real north country pleasure while breaking trail in an "untouched" forest area. Twenty pounds of "U. S. Choice" steaks helped make the trip a distinct success.

SMELT JAMBOREE

Friday, April 23, has been chosen tentatively as the date for the annual all-campus smelt jamboree on the Carp River. This is another activity sponsored by the Forestry Club. Committees for food, transportation, and equipment have been set up for several weeks in anticipation of another gala affair such as we have had in the two years past. Last year an estimated 120 persons turned out in cold weather and were rewarded by a heavy run of smelt. With tarps to break the wind, a roaring fire and plenty of gas lanterns, camp was quite cozy. Plenty of hot coffee and potato chips supplemented fresh fried smelt.

SPRING PROJECTS

The Club will spend some of its earnings from the concession on a week-end fishing trip again this year, probably to Ron Locke's camp north of Seney.

Seedlings have been ordered from Dunbar Nursery for spring planting on the school forest property. The Forestry Club will sponsor Arbor Day on the campus again this year. So far have had about 100% survival of trees planted.

Building the cabin is the final Forestry Club project for the year. When forestry alumni return to the campus for a visit, perhaps they might try "roughing it" at the cabin.
EXPERIMENTAL THINNING IN
SECOND-GROWTH HARDWOODS
THINNING YOUNG SECOND-GROWTH HARDWOOD STANDS

By Leland W. Hooker

Thinning of hardwood stands before they reach tie-cut or small sawlog size is recognized as desirable from the silvicultural standpoint, but is not widely practiced because of the high cost of harvesting thinnings. The Forest Products Research Division, in cooperation with the Cliffs-Dow Chemical Company, is engaged in a project aimed at developing methods and equipment for the economical harvesting of hardwood thinnings.

The experimental operations carried out thus far in a 50-year-old second growth stand belonging to the Copper Range Mining Company indicate that the light, scattered cut, the small sized material being handled, and the relatively low value of the wood being produced, place serious obstacles in the way of successful mechanization of harvesting in a conventional thinning. The time spent in assembling full loads to the skidding equipment has been too great to permit economical production per crew-hour.

In order to overcome some of the obstacles mentioned above, a new concept of hardwood silviculture is being considered; namely, thinning the stand by clear-cutting narrow strips. Such a plan would permit economical tree-length skidding, and would almost eliminate damage to the residual stand. From the silvicultural standpoint, it would permit the release of trees along the edges of the cut strips. For this reason, strips should be kept as narrow as possible, consistent with effective release, in order to create the maximum amount of "edge" per forty. It is contemplated that after the crowns have closed in over the first strips cut, another cutting should be made with the strips running at right angles to the first ones. The result of this, then, will be a pattern of thirty-foot square blocks of timber, and the stand should be in condition to be managed on a selection system or any other that seems desirable.

A series of four strips has been cut, and sample growth plots have been laid out to check the effectiveness of this type of release. It is anticipated that several more strips will be cut during the summer of 1954 to develop further data concerning the economy of the method.
"Topper" — a scene in Yorkshire during the great flood and while...
SOMETHING NEW HAS BEEN ADDED

Last year on May 14, 15 and 16 the freshman forestry class went on a field trip which will probably become a standard requirement for all future general forestry classes. The object of the three-day field study was to provide the Frosh with brief extensive training on the Ottawa National Forest and to learn more of the U. S. Forest Service multiple use and sustained yield management plan on this land.

Twenty-five students met early on Thursday morning for the three-hour drive to the Kenton ranger station, from where forest ranger Matthews conducted the group to various points of interest in his district of the forest. First of the areas visited was the new Sturgeon River bridge. This bridge is one of the 77 bridges on the Ottawa road system. It was built in 1952 at a cost of $30,000.00. Fifty-five of the bridges on our roads are constructed of native timber and the Forest Service is presently engaged in replacing these bridges with a more permanent type of structure. In 1953 they plan to replace 13 bridges at a cost of about $115,000. The group also visited an old growth hardwood timber sale, several jack and red pine plantations with spittle bug damage, and a government operated summer camp,—The Nesbit Lake Group Camp—which may be rented to large social organizations, such as 4-H Clubs and scout groups in the Lake States region.

The group spent Thursday and Friday nights at a big set of tourist cabins near Iron River. Amateur cooks ran wild at mealtime, as the class “batched” in groups in individual cabins. As usual, canned pork and beans turned out to be the most common food. Luckily—everyone escaped without indigestion. Highlights of this phase of the trip proved Joe Shaw the only good trout fisherman (1 legal trout) and Jim Bailey the bean eater with the greatest capacity.

On Friday the group spent the entire day with Max Melick on the Iron River District of the Ottawa. Here they reviewed several of the jack pine and red pine plantations in the district. To date 5,790 acres of denuded or only partially productive land have been planted on the Iron River Ranger District. As estimated 1,658 acres remain to be planted, but some of this area is difficult to plant and cost of planting may make it prohibitive.

Later, the freshmen inspected several jack pine and red pine plantations which had been affected by the Saratoga Spittle bug.
These areas were first damaged in 1945 and many of the plantations were aeroplane sprayed with DDT in 1946 and 1947. According to Ranger Melick, spittle bug infestations are now found in many jack pine and red pine plantations, especially on the Bessemer and Kenton districts and to the south on the Nicolet National Forest. Investigations point toward an increase of Spittle Bug injury, especially in red pine.

The class studied several deer browse exclosures set up by the Michigan Department of Conservation co-operating with the Ottawa National Forest. Later in the day, they stopped at the Ottawa Lake Recreation Area near Iron River. This area was visited by an estimated 360,000 people last year. There are 14 recreation areas developed for public use on the forest. Ottawa Lake is most highly developed. This area is open for use from Memorial Day to Labor Day for bathing, picnicking and camping. An estimated 18,000 people used this area last year. The annual cost of maintaining Ottawa Lake recreation area is $2,000.

On Saturday, Tech’s freshman foresters visited the Tamarack Lake fire site, one of the few remaining stands of virgin white pine in the state, a series of deer browse study plots, and one of the federal forest tree nurseries. Also of particular interest was the Michigan Conservation Department’s trout-rearing pond near Watersmeet, and the Watersmeet central fire control and dispatcher’s office of the Ottawa.

Educationally, the trip proved to be the tool which knitted two college terms of “book study” in general forestry into a definite pattern of land management. We all hope Professor Hesterberg will take future freshmen classes on this trip so they may benefit by such a field excursion as last year’s class.
SMELT DIPPING

Spring has arrived and the cry of the northern Raven has faded away with the last melting snow bank. All that remains for Tech students after break-up are hourly-, mid-term and final-exams, but for foresters there remains one outstanding diversion from these work-a-day problems, smelt fishing. During the spring of each year, hoards of these silvery little fish migrate from their winter waters in Lake Superior up into the small creeks and rivers of the Keweenaw to spawn, then to return to the Big Lake. A small creek literally swarming with silvery fish from bank to bank, gives some idea of how the fish migrated in the early peak days of their spawning period. Today the flow has not greatly increased, but the fish still come in such numbers so as to provide an ample feed—for hungry (or thirsty) Michigan Tech foresters.

All night along the shores of the Silver, the Huron, or the Pike Rivers, or along the banks of Swedetown Creek, lanterns can be seen bobbing in the dark; an occasional shout of enthusiasm can be heard as a lantern-lit net is lifted, full of the flopping, gleaming, silvery smelt. Up on the bank, next to glowing coals of a wood fire, the cook prepares fried smelt dipped in flour. Out of the creek—into a sizzling pan—down the gullet; simple but tasty—that’s a forester’s smelt feed as recreation to void the energies of youth and the troubles of Chemistry, Algebra, Physics, and English. If only these rascals would be plentiful the year ’round so that Tech Foresters could beat the grind of studies with a smelt fry along the invigorating surroundings of a great North Country.
BUCK SHOOT

During deer season this fall, as in the past years, the Michigan Tech Forestry Club sponsored their Annual Buck Shoot. The club members showed a lot of enthusiasm over this year’s shoot, since the affair was organized somewhat different than heretofore. A total of 44 students and faculty registered for the competition.

This year, due to the indebtedness from last year’s Annual, the Club decided not to hold the Buck Shoot in the usual manner. Instead, the competition was limited to include only student and faculty members in the Forestry Department. Foresters interested in competing for the prize contributed 25c to a jackpot, which was given to the lucky hunter killing the heaviest buck. This arrangement made the Buck Shoot more of an affair for foresters than in past years, and it was generally agreed that more than usual interest was afforded. Foremost in importance was the fact that as each forester got his buck, the news quickly spread to the classroom.

On the opening day, Ken Holmes, senior forester, and Chief Forester of the Tech men, made the winning kill in the Deer Lake area in Keweenaw County. His 9-point buck weighed 19.5 pounds. As an anti-climax, however, Don Carlson, freshman forester from Bessemer, brought in a weight slip from his locker plant of a buck he killed that weighed 175 pounds. Only trouble was that his Dad didn’t hear about the Buck Shoot and had cut the loins of his deer for a Sunday dinner. Tough luck, Carl!

The Michigan Department of Conservation reported that this year the overall kill in the Copper Country was lighter than last year. This was the only feature to support the fact that none of the Forestry Department staff shot a deer last fall.
DUCK HUNTERS

Profs. “Hammer” Steinhilb and Gene Hesterberg went out to the blind early one morning hunting ducks. “Hammer” forgot his glasses, but gave no concern since he felt they weren’t needed while hunting.

There weren’t many ducks moving early in the morning, but about 9:00 o’clock a lone mallard flew over the blind. “Look out, Hammer,” said Gene. The bird flew within range and Hammer filled the air with pellets from his three-shot, Mossberg, bolt-action, ventilated-rib, .16 gauge, center fire, box-sited, “c-lect” choke shotgun. Seconds later the duck faltered in flight and fell—splash—dead in the bay.

“Fine shot!” said Gene. “He’s a nice fat bird.”

“Nice shot?” questioned Hammer. “Shucks, I usually get three or four out of a flock that big!”
LUMBERJACK BALL

Our 4th annual Lumberjack Ball, with the official "lumberjack" garb of plaid shirts and jeans, was attended by about 225 people. The dance was held in the Memorial Union Ballroom on the Michigan Tech campus, with music for the evening being provided by the popular Starliners.

The dance committee was under the able direction of Jack Watson. Emily Divinyi, our female forester, was in charge of making the corsages for the occasion. The corsages were made of maple leaves, winter green, lycopodium, and spruce cones, all put together with a bit of wire. The ballroom was decorated with evergreen boughs and winter green, which gave the room an out-of-doors atmosphere.

This year it was decided to have the check room open for the convenience of those who came to the dance—for which there was a slight charge. The check room was taken care of by Norman Sloan and Gerry Ewert. Tickets for the occasion were handled by Walt Clark, with a member of each class to help him. A profit of $36.00 was realized from the sale of tickets and the receipts from the check room.

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