The Knothole, February 15, 1973

SUNY College of Environmental Science and Forestry Student Body
SYRACUSE: AFTER THE DUTCH ELM DISEASE

For a number of years the city of Syracuse has been struggling with the problem of replacing the trees that have died of Dutch elm disease. What was a biological problem in the mid-fifties when the disease was spreading has become a managerial problem of considerable dimensions.

Fifty-thousand trees have been removed to date. Many of them have been stricken elms. Many have been trees indirectly affected by the disease. Sugar maple, for example, is an extremely shade tolerant tree, and is unfavorably affected by climatic change. When the elms were dying off, the shade they afforded disappeared, and the remaining trees were faced with a hotter environment. But in all, thirty-thousand of these removed trees are being replaced.

Replanting such a large number of trees is no easy chore, either in the labor involved or the planning. The city has adopted a master plan which directs the biannual plantings. Although this plan often brings the city into complicated situations with the state planners and the wishes of some private homeowners, the underlying principles of the plan aren't very complicated.

Unlike in the past, a wider variety of tree species are being planted on each designated street. The planting of about four different species per street helps reduce the risk of having extensive damage caused by disease peculiar to one kind of tree. The species are selected partly on the basis of their aesthetic value when placed in conjunction with one another. Homeowners do have a say in this matter and can request certain species to be planted in front of their houses. Tree size too is taken into consideration, where telephone lines are so often present. Usually, small or medium trees are planted beneath telephone lines.

E" BILLS IN STATE LEGISLATURE

Have you ever sat at your desk, trying to study, when out of the sky you were blasted by the rumbling of a jet? Or have you ever wondered about the wisdom of road building as opposed to mass transit planning? Or maybe you've asked yourself if men have a right to a decent environment. Whatever your questions, the New York State legislature probably has bills introduced to try to solve the problems.

Starting with the category of water resources, one can find several bills in both the Senate and Assembly that are trying to improve things. In the Assembly, Mr. Henderson has introduced a bill to amend the Env. Cons. Law. His proposals would require more adequate planning by towns in the development of water supplies. It will eliminate much of the haphazard planning that now goes on. Also in the Assembly is a bill sponsored by Mr. Landes that will prohibit phosphate detergents in NYS. Such a ban would be complete in that it would become illegal to sell, distribute, or use any detergents containing phosphates. On a broader basis, Misters B. Smith, McFarland and Hudson have introduced in the Senate a bill to provide for protection of certain streams from modification. This would be an
amendment to the Env, Cons, Law. Although these are only bills, they indicate that there is indeed the beginnings of action in the legislature.

For those of us that value hiking and biking, the Senate has come up with two bills. Both are sponsored by Mr. B. Smith but they are coming from two different committees. One will require a comprehensive plan for the establishment of a State-wide trail system. The plan will make heavy use of abandoned railroad rights-of-way as a basis of the system. This one comes from the Conservation Committee. The other, from the Finance Committee, establishes a council to formulate the plan for the development of the trail and bikeway system.

The legislature also gives weight to the rights of individuals and citizen groups in environmental matters. Perhaps most fundamental is Mr. Meyerson's Senate bill to amend the state Constitution to include the inalienable right of every man to a decent environment. In addition, there is Mr. Dunne's Senate bill to allow citizens to bring action against another party for violating any environmental statute whether or not that person is personally aggrieved. It also allows for action in anticipation of environmental damage. A similar bill in the Assembly is sponsored by Mr. Burrows. A major difference is that this one includes ability to stop licenses from being issued.

There are two Assembly bills dealing with noise. Assemblyman Henderson has put forth a bill to establish a temporary commission to study noise pollution and propose standards of acceptable noise level. The commission would be composed of 3 senators, 3 assemblymen and 3 appointees of the governor. Mr. Fink has introduced a bill to establish a committee to study the effects of jet noise of the well-being and emotional health of people living near jet airports. The committee would be interdepartmental, including the departments of health and commerce.

The area of wildlife has several bills proposed in the Senate and Assembly. One of them, sponsored by Senators B. Smith and Mason extends the legal definition of protected wildlife. If passed, protection would be extended to endangered species also. Mr. Stafford of the Senate Judiciary Committee would have the Constitution amended to allow dedication of State lands for wildlife and recreational purposes. The lands are state-owned lands which are outside of Adirondack and Catskill parks. It would be possible to include greater sized parcels of land up to 100 contiguous acres than before.

Since problems seldom obey state boundaries, Senator Marchi has introduced legislation calling for interstate cooperation in environmental programs. Such interstate action is supplemented by provision for State-Federal agreements. The main thrust seems to be to encourage cooperation on environmental matters between New York and adjacent states and also to participate in national environmental protection programs.

There are also a couple of bills that are of special interest to ourselves as students at this college. Proposed by Mr. 

continued from p. 1 and large shade trees planted on the opposite side of the street.

However, trees are not just selected on the basis of merit. The cost of trees varies each season, and this cost influences the selection of trees by the city. The Department of Parks and Recreation, which is in charge of the planting, gets a limited amount of money from the city's Common Council. This money in turn must be able to meet the cost of replanting at that time. Thus tree price becomes an influential factor in the replanting process.

At this time new plans are being carried out. The city is concentrating on replanting heavily trafficked thoroughfares. Trees act as excellent sound absorbers in such noisy areas. Also block planting of whole areas is being tried as opposed to request planting where a homeowner makes an individual request to have the city replace the dead tree in front of his home.

Since1968, the city has replanted 4,500 trees of about twenty species. With the block planting plan, 2500 more trees are expected to be planted this year, offering a more permanent replanting to a much larger part of this city. Let's hope that soon Syracuse will regain the beauty it had twenty years ago when the elms graced the city's streets.

Spencer Jarrett
SILVI. SAPSUCCER

The silviculture grads under Dr. Leaf are working on soil fertility and tree nutrition of red pine plantations at Pack Forest. They are analyzing the nutrients present in the trees to see if a new diagnostic technique for nutrient deficiency can be developed. The goal of the studies is to produce better quality timber through the addition of nutrients as fertilizers. Previously, through 45 years of study, a potassium deficiency has been recognized in addition to the need for irrigation.

Some of the students are analyzing the nutrients present in the foliage of the pines. This produces several difficulties, however, because the quantity of nutrients in the foliage depends upon the age of the foliage and its position in the crown. So Ron Philpott chose to analyze the sap from some sample trees since the sap would be a more current and regular source of nutrients than the foliage. To do this, he used three different methods, all of which required the use of a vacuum pump to remove the sap from the trees.

Philpott sampled one tree from each of the four test plots set up at Pack Forest—the control plot, potassium fertilized plot, an irrigated plot, and a plot with potassium fertilization plus irrigation. The first method used was tapping the tree, the same as tapping maple trees for sap. The plastic tap was inserted into the trunk of the tree then the other end into a flask, which was attached to the vacuum pump. When this method failed to obtain any sap, Philpott tried a modified tap by cutting off the end of the tap inserted into the tree. With this shorter tap, the object was to intersect the last four growth rings of the trunk where the sap flows. Unfortunately, the pines gave resin, which plugged up the tap, sooner than they gave sap, so tapping the tree was not the best method.

The second method Philpott tried was to cut off a branch in the crown, leaving a stub. The vacuum pump was then attached to the end of the stub; however, the resin also clogged up this attempt.

The final, and successful, method involved exposing a root and cutting a section out of it. Each end, the stub end leading to the tree and the stub end apart from the tree, were attached to the vacuum pump. Philpott obtained nothing from the tree end of the root, but he did get sap from the other end.

He explained why, besides the resin, that the other methods did not work. Because of the transpiration in the foliage, a vacuum is created inside the tree and in order to get sap from the pine, the internal tension has to be overcome. The vacuum pump could not do this, except in the case of the root end which was not connected to the tree; here the pump had no force to overcome. The samples are being analyzed now. Philpott's method will be used to confirm the fact that fertilization will help improve the growth of red pines.

B.L.

LIVING FOSSILS IN THE CEMETERY

During your career here at the College of Environmental Science and Forestry you've probably had many occasions to wander thru the park-like cemetery adjoining our campus. It's an interesting place to visit every once and a while because it offers such a sharply contrasting mood to the nearby campus community. After becoming acquainted with all the landmark tombstones and mausoleums you probably began to pay a little more attention to all the trees. There's quite a large number to be found, and if you've taken a course in dendro you're also probably aware that there's a relatively wide range of species present. Some of them are quite unique; consider, for example the Maidenhair tree-Ginkgo biloba.

If you had lived in the Syracuse area two hundred years ago, you would not have been able to find a single Ginkgo tree. Not a single tree of this species existed in all of North America. In fact, it could be found only in a few isolated regions of China and Japan where it was carefully grown and cultivated in temple gardens. Had you lived in "Syracuse" about one hundred million years ago, however, you would have found this tree to be a common member of the forest community. And remarkably, the tree would have appeared nearly identical to what it looks like today. For this reason, Ginkgo biloba is considered to be a living fossil. We can trace back the evo-
Sears of the Assembly Education Committee is a bill to license and regulate professional foresters. A state board of examiners would be established by the education department. A license fee of $40 would be charged for taking the examination. Regulations for practice are to be set up as well as penalties for violators. A very interesting Senate bill is proposed by Mr. B. Smith. His bill appropriates funds for facilities development at Cornell for expanding the environmental education program. The funding will go for construction, reconstruction and renovation of the facilities. The direct beneficiary is the state college of agriculture and life sciences and their environmental program.

There are even more bills coming out of committee than listed. As one can readily see, they are diverse and far-ranging. What needs to be remembered, however, is that they are just bills at the present time. When and if they become law depends on many variables. For instance, any legislators propose bills that they really do not back too heavily. This is just to be able to tell their constituents that they are doing something for the environment. In other cases, bills are mangled in committee by various compromises. The same often occurs between Senate and Assembly versions. As students we should try to be aware of government actions as much as possible. As students of this college, we should be especially aware of the environmental field of law.

Daniel R. Mahns

The main topic of discussion at the meeting of the Student Chapter of the Society of American Foresters was whether or not to donate money to the National SAF Headquarters building fund. The members decided in favor of the motion to donate $100 to the fund. Members will also be working on ideas for a Spring semester activity. The next meeting will be Monday, Feb. 19.

B.L.
Scientists Discover Many Chemicals That Relay Animal Messages Humans, Too, May Respond To Pheromones, Studies Hint; Moths, Monkeys Do How to Tame a Feisty Fish

BY EILEEN GRAHAM Staff Reporter of THE WALL STREET JOURNAL

The message is invisible but urgent. Cued by the light of approaching dawn, a female gypsy moth releases a few molecules of her special scent into the air. Wafted by the breeze, her fragrance reaches the nostrils of any male of the species within miles. He turns and speeds off seeking for her; thanks to their unique chemical language, the male and the female meet to exchange the programmed message of guided missiles.

The moth's scent is one of a group of substances called pheromones. Unlike hormones, which regulate an organism's internal functions, pheromones are "chemical messengers" secreted externally by an animal to influence the behavior of others in his species, usually through the sense of smell. Though scientists in the past few years have identified scores of pheromones in the laboratory, they've only begun to translate the complex language of scent that appears to be the primary form of communication for most animals. Obeying commands relayed by pheromones induces animals to honor territory rights, mate, find food, muster allies when attacked, choose leaders and regulate their populations.

And yes, researchers are now possible there are human pheromones, too. "To understand pheromones is to understand most communication in all kinds of organisms," says Edward O. Wilson, professor of zoology at Harvard University's Biological Laboratories. "As we learn more about them, there's a chance we'll make some surprising discoveries about human communication."

Rhesus Monkeys and the Rhythm Method

Until recently, most biologists would have thought this idea preposterous. Their reasoning was that man's travels up the evolutionary ladder had denuded him once-common olfactory powers in favor of sight and language, ultimately his verbal language. Now, fascinating clues are beginning to emerge to suggest that humans, like most other species, transmit substantial messages with pheromones.

A year ago British scientists reported they had isolated a chemical sex attractant secreted by female rhesus monkeys. That raised the possibility of sex lures in other primates, in invertebrates, pheromones are "chemical messengers" that attract males at the time of ovulation. If so, they reasoned, a test for its presence might greatly reduce the "non-synchronous method of birth control, which requires sexual abstinence during ovulation. This method now often fails because there's no simple and surefire way of pinpointing the time of ovulation.

Studies of both mice and men suggest that pheromones, besides causing an immediate and direct effect on behavior, may also produce striking physiological changes. In many instances, female signal from the male appear to influence the female's estrous, or period of fertility and sexual receptivity. When a newly mated male mouse bumps into a male whose smell differs from her mate's, the new odor alone is enough to prevent her pregnancy and return her to a new estrous. And exposure to an adult male mouse hastens puberty in young female mice. Pheromones in mouse urine, scientists believe, may regulate these physiological changes, which some researchers think are part of a complex mechanism for regulating population density.

Synchrony in a Dormitory

As a proof of concept, the British medical journal Lancet considers it "at least a reasonable possibility" that pheromones explain the strange pattern in menstrual cycles of roommates and close friends living in an all-female dormitory. A Harvard psychologist, Martha K. McClintock, found that their menstrual cycles tend to become synchronous—that is, to begin and end at the same time. Neither similar eating nor sleeping habits appeared to influence this synchrony; instead, the amount of time the women spent together appeared to be the significant factor, hinting at some form of chemical communication.

Other studies relate the sense of smell to human hormonal activity. Several have shown that sexually mature women are far more sensitive to the odor of exaltolide, a musklike odor alone is enough to prevent her pregnancy and return her to a new estrous. And exposure to an adult male mouse hastens puberty in young female mice. Pheromones in mouse urine, scientists believe, may regulate these physiological changes, which some researchers think are part of a complex mechanism for regulating population density.

Scientists agree that far more data is needed before they can do more than speculate about human pheromones. Gisela Ebpe, a zoologist at the Monell Chemical Senses Center at the University of Pennsylvania, says, "We just don't know enough yet. We have the little bits but we can't fit the picture together yet." She stresses that trying to isolate and control which factors influence a certain aspect of human behavior is vastly more complicated than doing so with animals with relatively simple laboratory animals.

Though there's still no conclusive evidence that man communicates with odor, scientists say the existence of human scent glands with only one function—fit the picture together yet. These are the glands that produce body odor, which begins at puberty—and which is caused by the same fatty acids that make up the rhesus monkey's sex pheromone. "It could be that our daily showers and deodorants are just one way of enforcing our sexual taboos," Harvard's Prof. Wilson speculates.

One major chemicals company has earmarked 5% to 10% of its research budget to fund pheromone and related studies. The company is International Flavors & Fragrances Inc., which contributes to the Masters and Johnson Reproductive Biology Research Foundation. "Prof. Wilsons' contributions are in line with the link between odor and sex in humans," S. J. Spitz Jr., president, agrees pheromones might have a contraceptive use, and also says that a better understanding of the messages transmitted by odor could lead to valuable new medical diagnostic tests. Scientists recently isolated a pheromone-like odor emitted by schizophrenia patients, he says, and he thinks it someday may be commonplace to analyze scent for chemicals warning of emotional or physical disorders.

Because chemical communication among terrestrial animals is so basic, search for other animals, scientists are spending much of their time in insect studies. The nature of insect communication was suspected for a hundred years, but not until 1969 was anyone able to isolate an insect pheromone. Because the sex lure of the female silkworm moth. To extract only a fraction of a gram of the attractant took a German scientist 20 years; he had to slice off about a hundred tips of 250,000 virgin female moths. Since then, with advanced laboratory equipment, nearly 100 other insect pheromones have been identified.

The male wild silk moth has two long, featherlike antennae containing something akin to 100,000 receptor cells, each "programmed" to respond only to pheromone molecules of the female. Once an airborne molecule of the female's sex attractant contacts a male receptor cell, a signal directs his brain to search for her. Lynn Riddiford, associate professor of biology at Harvard, says that when related species emit the same chemical sexual lure, sexual confusion is avoided because they do it in different ways.

Most pheromones are specific, carrying just one message. A dead ant, for example, emits a pheromone that signals other ants to dispose of its body. When daubed on an ant that's alive and kicking, the pheromone still compels him to dutifully dump it on the funeral heap outside the nest. He may resist and scramble back home, but until the pheromone evaporates he'll be carted back again and again to the burial heap.

Despite such specificity, Prof. Wilson thinks that perhaps only 10 pheromones may be enough to organize an entire ant society. By combining bondage or Frequency of emissions, he suggests, animals may change their message—just as a musician plays different songs with the same piano notes. The queen bee was one pheromone; she gives a "queen substance" for several purposes. Eaten by worker bees, it inhibits development of their ovaries, preventing their emergence as rivals. It also serves as a sex attractant, combining different pheromonal flights of the day.

Pheromones have a staggering potency. Prof. Wilson has calculated that if a female gypsy moth released all her pheromone at once, she could attract a billion males. "If you
Commissioner of Environmental Conservation Henry L. Diamond today called for prompt, strong Federal cooperation against the spread of an undesirable fish species—the white amur or so-called grass carp. In a letter to Secretary of the Interior Rogers Morton, Commissioner Diamond said that New York and many other states have laws barring the sale or possession of this fish, but it still is being offered for sale in several national publications.

Moreover, he reported, the fish has been promoted in several inaccurate stories in nonscientific publications as a potential answer to overabundant weed growth in lakes. Despite these stories, preliminary research on the Federal and State level suggests exactly the opposite.

"We must halt this mail fraud perpetrated on our environment," Commissioner Diamond said.

The grass carp eats vegetation when other food, favored by more desirable fish, has been eliminated, particularly in cool northern waters. It turns to vegetation only after exhausting other foods and has little or no impact on algae, preferring coarser vegetation of rooted aquatic plants.

And, as for reducing eutrophication or premature aging of lakes, its incomplete digestion of vegetable matter may only compound eutrophication, the Commissioner contended. Eating and partially digesting weeds only enriches the water, setting the stage for even greater vegetation production.

"Once this fish is introduced into the waters of New York and other states, it may be too late to learn that it is unwelcome competitor with desirable game species. What we need prior to the introduction of any species of exotic bird, mammal or fish is sufficient research to determine what place it will fill in the environmental spectrum and which species, if any, it might displace," he stated.

After study of the life history of the grass carp, several other states including California, Iowa, Michigan, Missouri and Nebraska have recommended exclusion of this fish from their waters. The American Fisheries Society, foremost group of professionals in the Federal, State and private sector, is considering the case of the grass carp in its Exotic Fish Committee. Traditionally, exotic fish are confined to an experimental role before the clearance by this group.

Commissioner Diamond pointed to the problems resulting from introductions of fish without this necessary scientific investigation. The German or common carp was introduced in waters throughout the nation about a century ago and still exists there competing with desirable game species and is almost universally under-utilized. In New York's Adirondacks the familiar yellow perch was introduced into trout waters where large populations produce stunted growth crowding out trout and affording no worthwhile sports angling. A more recent example of imprudent introduction is the walking catfish which has established itself in the Deep South with detrimental consequences.

"These examples offer abundant proof that we cannot afford to introduce alien species into our environment without a thorough and painstaking investigation before the fact. We cannot permit the lure of a fast dollar or simplistic hope of solving a problem stamped...

CONTINUED ON PAGE 7
us into action that we will long regret," the Commissioner warned.

He asked that Secretary Morton coordinate his Department's activities with those of the International Association of Game, Fish and Conservation Commissioners to develop an organized effort to prevent the spread of the fish across state lines into areas where their possession is illegal or contrary to the recommendations of the state agency responsible for fish and wildlife resources.

POETRY... CORNER

The following collection of computer-oriented limericks is submitted to you rather than to the computer center newsletter because we feel quite a few of them wouldn't get printed in the letter.

A computer is much like its maker,
See how human it's getting at Baker,
A card reader that chews,
A printer that spews,
And a system prone to erratic behavior.

When in Baker we ponder a bit,
The computer's human behavior, to wit!
At one end it chews,
At the other it spews,
Paper piles of computerized -- !

Our computer has several quirks,
And seldom if ever, it works,
We don't mind so much,
The machinery as such,
But the people who run it are jerks.

Don sat at the big CDC,
Typing commands with obvious glee,
"Their names from the files,
I'll purge with these dials,
Then no one can use it but me!"

Tape errors I cannot excuse!
Through them, all my data I lose!
But the drive's not that bad,
Cause by mounting a pad,
You can use it for shining your shoes.

We once saw a man named Jim Moore,
Creeping about the computer room floor.
"A diagnostic insists
We've been dropping some bits,
Some I'm hunting around for the core."

Our underendowed CPU
(In terms of K it has 32)
Won't take problems much bigger,
Than the tip of your finger,
And what little there is has the flu!

To the input bin a user one day,
Put in his programs and then went away.
He'd return when he chose,
Watch his card decompose,
'Till he gave up the following may.

A certain programmer named Joe,
Wrote a program that pleased himself so,
It did nothing worthwhile,
Which caused him to smile,
"And what more its delightfully slow!"

In our normal subservient role,
On our knees to Don's office we stole.
"Oh please let us run."
He said "Not till I'm done,"
Dumping the system to console.

The remainder of the collection has been censored, and the compilers would like to remain anonymous.
By all standards this has been one crazy winter this year up to the time of this writing. I feel no sympathy for the owner of a snowmobile and his plight this year. It fills me with delight that those noisy, horrid machines are sitting in garages or reposing in the mud. In this article I will restrict my comments to those machines bought as a luxury or recreational vehicle.

Snowmobiles represent many things to me. First of all it is a capital outlay of considerable size. Granted, paying of these costs will have different impacts on those that are sympathetic to snowmobiles. But the initial costs are high. Since I have little to do with snowmobiles I can't quote exact prices but I would imagine they could run from $600 to twice that amount. Don't forget registration and the cost of a trailer. Suitable clothing has to be bought also. Once you have the machine, look at how often you can use it. Under good conditions I would think you could use it for a maximum of six months. But that's not every day. Its use would be limited to weekends or vacations. This is my value judgement but I find it money ill spent for the use one gets from it.

And what else does it represent? It is another gadget. Another internal combustion engine. Another in the long list of devices that we seem to think we need in order to be happy. What else is it but another headache. The snowmobile is a polluter. Most would think right away of the pollutants from its engine which is in fact a valid argument. But of much greater concern to me is its role as "polluter of peace." I refer to solitude...the peace and the calm of a winter's hike (for me-on snowshoes) that is blasted by their roar. Compaction by the treads is thought to cause compaction of snow around plants or small trees and do harm. Running over saplings and bushes offers visual proof of damage.

Back home my family owns forty acres of old farmland. It is located in the western fringe of Albany County, here in New York. This area is ideal for snowmobiling, because there is much open space. On our own property I have had numerous experiences with inconsiderate snowmobilers. One particular morning at 12:30 I awoke to the noise of twenty-two snowmobiles, a veritable train, crossing our property. Besides the obvious discourtesy of disturbing the peace these people have the gall to trespass and that's exactly what they were doing. We have posted our land just for this purpose, but have any of these people ever stopped at the house (well within view of their usual course) to ask permission to cross our land? No one has of yet. If they did have this much courtesy we might say fine but would direct them to use a route that would be far away from the house. Fortunately no vandalism or any serious accidents have occurred on our land. But these are factors which must be considered in the overall question of the worth of snowmobiles.

So how do you solve the problems? You can argue that the inconsiderate acts are perpetrated by only a handful, which I would agree with. The question comes down to the character of the person operating the machine. If he is respectful of other people's rights his impact will be far less annoying. This is the ideal, not the real. A partial solution I would propose as follows. Designated areas or trails specifically for snowmobiles should be designed and a fee charged for their use. Private lands should be avoided but if not, secure the landowner's permission and stick to a designated trail and don't loiter on the property.

I fear that the trend is toward more and more snowmobiles being purchased as a recreational vehicle. This I dread because the absolute number of inconsiderate users will increase. Since we can't go back to the time when there weren't any snowmobiles all I can hope for are more stringent controls on their manufacture and use and a hope that a new ethic will evolve where we don't feel that a machine is absolutely necessary for our recreation.
Since its inception in September of 1970 the College Recycling group has sent over 70 tons of paper to be recycled. Over 65% of this was newspaper. Part of the reason behind this is due to the large number of local residents, who bring newspapers in from their homes. The 2nd largest type of paper recycled is ledgerstock (colored and white) which comprises 10% of the total. Other paper grades which are taken are magazines, corrugated cardboard, chipboard (ex. cereal boxes), kraft paper (ex. paper bags), IBM printout paper and IBM cards.

Daniel Mahns, leader of the group, says that this may be the first school year in which the program has run on a steady basis. In the project's initial year the program did not get started until October and it took several months before the operation was running efficiently. The following year (71-72) started out very well until the spring when there was a difficulty in getting the paper transported to the recycling company. During this year the group has been running just ahead of last year's pace with 18 tons under their belts. Mahns says one of the main reasons behind the group's success is the "great co-operation" which they get from the College Maintenance Department. "The project may never have gotten off the ground if it hadn't been for this." During its 2½ years existence the group has netted close to $700. Five hundred and fifteen dollars were used to cover the cost of the Christmas Tree Recycling Operation of January 1972. Future monetary gains will be used to maintain and expand the program. Mahns stated that there is a limit to the amount of paper which can be recycled here because there are only 6 campus buildings to collect from.

CAREER SERVICES SEMINARS

Response to our Fall Seminar Program was so good, that we have scheduled a program for January and February. Topics will be: Resume Preparation; Interviewing; Job Hunting Strategy and Tactics; Summer Employment; and Careers for Women. Each seminar is limited to 20 participants. Interested students may sign up by calling Career Services, ext. 3616 or by stopping in at the office, 804 University Avenue. See E.S. & F. Calendar for times and dates, and room #.

"Since we've been using recycled paper, I don't feel too guilty about all this."

The very idea of the power and the right of the people to establish Government presupposes the duty of every individual to obey the established government.

A. Washington (1796)
Dear Sirs:

The letter written by RWL in the Feb. 1 KNOTHOLE requires comment, for I find the reaction to my article on Future Shock quite interesting. Needless to say, I am disappointed by RWL's inability to even faintly grasp the essence of the text.

Perhaps the most essential variable in this matter is education, as defined by one's total life experience. It is too much to ask of people like RWL to put aside preoccupation with selfishness and greed. Must you judge all others by your own values. Will not you recognize there is more in this world wide deserving of consideration than simply that which you find personally convenient. Please do not misunderstand, for we all are but images until a day when the courage and faith is found to stand firmly upon our own two feet in the name of all mankind.

May I suggest to you some further preparation quite in keeping with your present situation; vicarious at best, but books must do for the moment.


Slater, Philip. 1970. THE PURSUIT OF LONELINESS. Beacon Press, Boston


When you have accomplished this RWL and understood what you have read, then we might try to communicate again and perhaps succeed.

We shall be able to rid ourselves of many of the pseudomoral principles which have hag-ridden us for two hundred years, by which we have exalted some of the most distasteful of human qualities into the position of the highest virtue.

KEYNES

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Bob Nixon
Dear Editor,

I sincerely wish that you would thoroughly check your facts before presenting them to the general public in your publication. In the Feb. 5th issue of Free Speak, specifically "In Search of The Star", you said that the Earth Day Seminar to take place on April 21 was "Not so much to stimulate awareness towards our environment, rather, reliable sources report the ulterior reason is to stimulate the waning prestige of this state institution, a significant reason......" As student co-chairman, I tell you that you are entirely wrong. The purpose of the Earth Day Seminar is to stimulate interest in the environment in a constructive way. We are making use of college facilities because we have no others. Various groups on campus are helping us because they believe it to be a worthwhile cause. I don't know who your "reliable sources" are, but I don't consider them too reliable. I would greatly appreciate a correction of your statement in Free Speak, because as it now stands, you have mis-informed the public. Too much work is going into this conference to have it misjudged do to false information presented in Free Speak.

Thank you,
Betsy Boyce
Co-chairman
Earth Day Seminar

Dear Editor:

In regard to your question "Who is Bobert?" in the Feb. 1st Knothole, (Volume 23, Number 15, page 23), I would like to submit a guess. My guess is that "Bobert" is Robert Warren Loveless.

Respectfully submitted,
Eustice B. Nifkin
Patron Saint, College of ESF.

CAMPUS CLASSIFIEDS:

Found: One neatly folded $1 bill. If you can identify time and place where it was lost, please come and claim it. COPS & CE Office, 123 Bray.

Lost: One black umbrella. If found, please return to Bob Loveless. x2768
Results of Games of 2/5/73-2/8/73

Watson Warriors 44, Sap 27
Generals 24, Slugs 19
Pulpers 39, Haiders 25
Pulpers 27, Wildmen 20
Wally's Wonders over Chickers by forfeit
Wally's Wonders over KE by forfeit

The Watson Warriors completely subdued Sap as J. Tessier, C. Wallace, and John Geer led the Warriors with 13, 10, and 8 points respectively. J. Vonk meshed 16 points for the losers.

The Generals remained undefeated by edging the Slugs in a low scoring battle. The Generals led all the way but the outcome was in doubt until late in the game. G. Campbell scored 8 points and R. Kaltreider added 7 to lead the Generals. M. Stayton notched 9 points for the Slugs.

The amazing Pulpers won two games during the week, first ousting the Haiders from the ranks of the unbeaten and the edging the Wildmen. J. Tropp (J.R.B) netted 12 points and F. Manno meshed 10 to lead the Pulpers over the Raiders. Eric Oehler scored 8 for the losers. The next evening the mere presence of Ray Becume proved to be enough as he exorted his teammates on to their narrow margin of victory. F. Manno and B. Huss led the unbeaten with 10 and 8 points respectively. J. Hanely led the Wildmen with 12 points.

Surprisingly enough (not really) the infamous Jeff Palmerton cancelled the exhibition game between his Chickens(on M&M's) and the Generals. Jeff explained that his team members were deeply involved in their pursuit of knowledge and could not play. like the modest athlete he is, Jeff offered to play the Generals alone and to give them a slight handicap. The Generals, greatly respecting his ability, politely refused.

PLAYOFF SCHEDULE

Mon. 2/19
5:30 Stumpy Stuffes- Slaughter H 5
6:15 Bugs-M&M's

Tues. 2/20
5:30 SAP-Generals
6:15 Wildmen-Whooper's Hoopers

Wed. 2/21
5:30 Raiders-Wally's Wonders
6:15 Watson Warriors-Whoremasters

Thurs. 2/22
5:30 Pulpers-KE
6:15 Super Frosh-Slugs

S.U. Fencers Meet Buffalo

The fencing team, currently 1 and 5 for the season battles the Buffalo team Feb. 17 in their last meet of the year. Foresters on the team are:

| John Babcock | Soph. | epee |
| Gary Galbreath | Sr. | epee |
| Werner Kist | Soph. | Sabre |
| Joe Sherlock | Soph. | epee |
| Ed Wright | Soph. | foil |

Coach Len Monostory is a former Forestry student.
MOVIES

The College of ES&F is hosting the pre-screening competition of category area ENVIRONMENT: ECOLOGY, POLLUTION, CITY PLANNING for the 15th annual American Film Festival.

Films will be shown:
Afternoon sessions: Moon Library Conference Room
Evening sessions: Room 5, Illick Hall
For more information check the bulletin board on the 1st floor of Illick Hall.

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Air Is For Breathing - 29 minutes
Area Closed - 10 minutes
Hoobytrap - 28 minutes
The City - 10 minutes
The City And The Self - 51 minutes
The City I See - 14 minutes
City Limits - 28 minutes
Controversy Over Industrial Pollution:
   A Case Study - 17 minutes
The City: Who Needs It - 30 minutes
A Day In The Life Of P.T. Barnum - 10 minutes
EE-I-EE-I-OH! - 10 minutes
Energy - 21 minutes
New Architect In Town - 8 minutes
Old Enough - 24 minutes
Place Of Belonging - 26 minutes
Populations - 15 minutes
Promise City - 30 minutes
MOVIES

The Question Is People - 25 minutes
The Second Genesis - 16 minutes
Spaceship Earth - 17 minutes
A Sylvan Sewer - 25 minutes
Tokyo-The 51st Volcano
Turn Off - 7 minutes
Voices Of Maine - 28 minutes
Water For A City - 12 minutes

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FORESTRY COUNCIL NOTES

President Loveless announced that Dr. Craul, the head of the General Education Committee, would tentatively like to speak to the Student Council next week, in hopes of getting student input.

Bruce Darnard announced that there have been 8 names submitted to the Distinguished Teaching Professorship Committee.

There will be a meeting of the Resource Management Curriculum Committee next Tuesday in Marshall Aud. at 7:00.

President Loveless announced that SU elections will be in about 3 weeks. Our elections will be held the last week in March.

Betsy Boyce moved that the Student Council donate twenty five dollars to help defray miscellaneous expenses for the Earth Day Seminar. Seconded by John Anlian, the motion was passed unanimously.

Jim Turner moved that the Student Association approve the use of their name in sponsoring the Earth Day Seminar to be held April 21. Seconded by Mary Butler, the motion was passed unanimously.

Absent: Kevin Cotter
Thoughts of the Adirondack Park bring to mind high peaks, balsam forests, and a multitude of small, clear brooks. These waters, when converged, create one of the most unique wilderness river systems in the country. The inherent value of these rivers is seen in the mink and beaver that inhabit their banks, the white water canoeists on the upper Hudson in April and once outside the park, the hydroelectric power that is generated from the "mountain generated torrent." To ensure the continuation of these advantages, the river resources must be protected; must remain in a clear, free-flowing state.

In 1970, the Temporary Study Commission on the future of the Adirondacks made the following recommendations:

"A wild, scenic and recreational rivers system should be established for the Adirondack park."

The study commission defines wild rivers as "those rivers, or sections of rivers, that are free of diversions and impoundments, are inaccessible to the general public except by foot or horse trail, have primitive shorelines, and are free of man-made objects other than foot bridges. Rivers designated as wild shall be unpolluted and, through natural obstruction or administrative regulation, be free of motorized travel. Administration of these areas will be directed at perpetuating them in a wild condition." West Canada Creek, the Blue Ledge portion of the upper Hudson, the Cold River (Adirondack hermit Noah Rondeaus' territory), and sections of the Sacandaga Rivers are included in the classification. This totals 67 miles of wild rivers.

The scenic river category involves 323 miles of waterways, and is defined with much the same guidelines as those in the "wild" category. On scenic rivers, "log dams are allowed and existing public roads may make the river accessible as long as they are not more frequent than one every two miles. Motorized travel will be allowed only in special instances."

The Oswagatchie (known to summer Cranberry Lake students) comes under the "scenic" definition. The often canoed Racquette River, the Boreas, and the St. Regis River are identified as scenic. (Note—it is on the St. Regis River area that Tondalay Corp. intends to construct a large second home development.)

The most accessible rivers, those in the "recreational class" may have some development along their shores and may have undergone some diversion or improvement. The Schroon River, Cedar River and the Ausable River are examples of the 528 miles of recreational rivers in the park.

In 1971, the Wild and Scenic Rivers bill was passed by the legislature protecting the beautiful Adirondack rivers. The Association for the Protection of the Adirondacks has made a film entitled "Of Rivers and Man," dealing with these Adirondack rivers and their protection. On Tuesday, February 27, the Bob Marshall Club hopes to show this new film. The meeting is in room 5 Illick at 7:30.

On Saturday, February 17, the Bob Marshall Club is sponsoring a snowshoe hike into Terrell Pond in the Southern Adirondacks. The sign-up list and details are on the third floor Illick bulletin board.

The Forest Service is looking for volunteers to do house to house interviews for a survey. This will take place for two weeks in March. Anyone interested in helping with this project should contact Professor Moeller in room 113 Marshall. Ext. 7228

The Syracuse Section of the American Chemical Society is having their Syracuse Section Award Night. They will be honoring Dr. Conrad Schuerch, professor at SUNY College of Environmental Science and Forestry. He will present an award address at The Gallery, Drumlins.
Thursday - Feb. 15

Administrative Advisory Committee meeting, 12 noon, conference room, Moon Library, (closed meeting), student representative is Dave Hardin

Noon Movies - Botany Club, "Completion of the First Transcontinental Railroad," & "Carl Sandburg Discusses His Work." Bring your lunch, 12 noon, 319 Marshall - All Welcome

Career Services Seminar, "Job Hunting Strategy and Tactics," 7 pm, Rm 101B, 804 Univ. Ave. Call SU ext. 3616 to reserve a spot for yourself.

Wildlife Society meeting, 7 pm, Conference Room, Moon Library. (open meeting)

CSA Spring Lecture Series, Poul Anderson, distinguished science fiction writer, will speak on the possibility of life beyond the earth in his talk, "Life as we do not know it" 8 pm, Marshall Auditorium

Seminar presented by: Dept. of Microbiology, Upstate Med. Center & Dept. of Biology, S.U. Dr. Peter Bruns, Dept. of Biological Sciences Cornell University will speak on, "The mating reaction in Tetrahymena pyriformis: an inducible sequence", 4 pm, 117 Lyman Hall. Coffee will be served at 3:30

Friday - Feb. 16

Sea-Grant Group meeting, all day, Conference Room, Moon Library.

S.U. Outing Club - Square Dance, Max Casper calling, free refreshments, 25¢ admission, 8-12 pm, basement of Women's Building

The Forestry Basketball Club has a game with the Ithaca College JV's at 6:15

Monday - Feb. 19

CSA Meeting - 12 noon, 324 Illick (open meeting)

Career Services Seminar, "Summer Employment" 4 pm, Rm 101B, 804 Univ. Ave. Call SU Ext. 3616 to reserve a spot for yourself, and your