

MT. LAKE

ECHOES

1989

View from the Mountain Top

The big question for the summer of 1989 was whether the rain will ever stop. Those who showed up for the Biology Retreat on September the 16th or for the Friends of Mt. Lake on the 30th must think that the answer is never. The Station has never looked so pathetic as it did on the latter occasion. Hurricane Hugo came right across the mountain leaving a path of devastation in its wake. The fact that the ground was sodden increased the damage, as the largest trees simply pulled up their roots in solid mats. By working hard all weekend with chainsaws and rakes, the Friends were able to clear a small amount of space around the Lawn; but it will be a long time before the damage disappears.

On a more cheerful note, plans are well along for the coming summer. You will doubtless have read in Science the ad which has gone out for a new director. The Department of Biology expects to appoint a senior level evolutionary biologist who will have as his principal duty the direction of the Station. Think about who should be chosen and let us hear from you.

Some of your favorite instructors will be back next year. George Byers will be the Dean of the Faculty, with Christy Nalepa helping him out with his course in Entomology. Quantitative Methods will be back featuring Henry Wilbur and Joe Travis. Also, Phil Shelton will do the Natural History of the Southern Appalachians. Steve Tilley and Bruce Grant return after several years to do Animal Ecology and Evolutionary Genetics respectively. Rytas Vilgalys will be developing a new course in the experimental study of Fungi.

There will be a whole flock of workshops: A special one for teachers run by Jerry Wolff, Photography by John Danehy, Charley Werth on Electrophoresis, and the Molecular Field Biology by Mike Timko and Dan Burke.

So, on that note let me wish you a wonderful holiday season. I look forward to seeing you again next summer if not before.

All the best,

Jim Muny

TAMIAS STRIATUS RECORDEACEAE

Eastern Chipmunk

Giles Co., VA

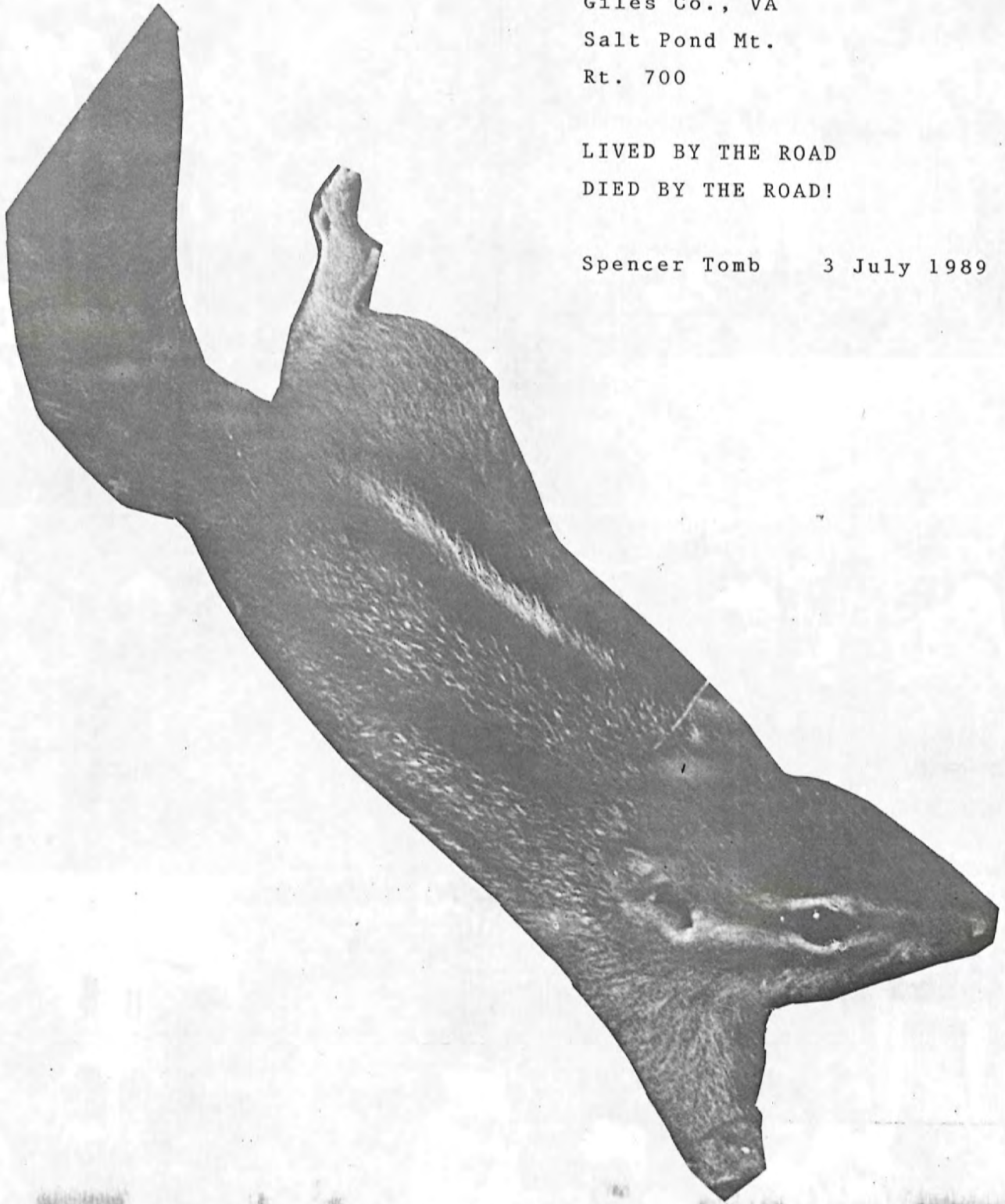
Salt Pond Mt.

Rt. 700

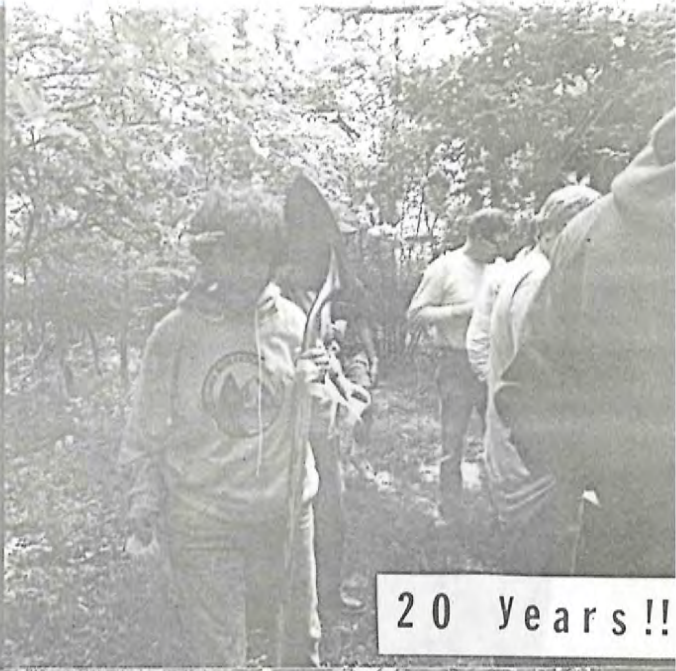
LIVED BY THE ROAD

DIED BY THE ROAD!

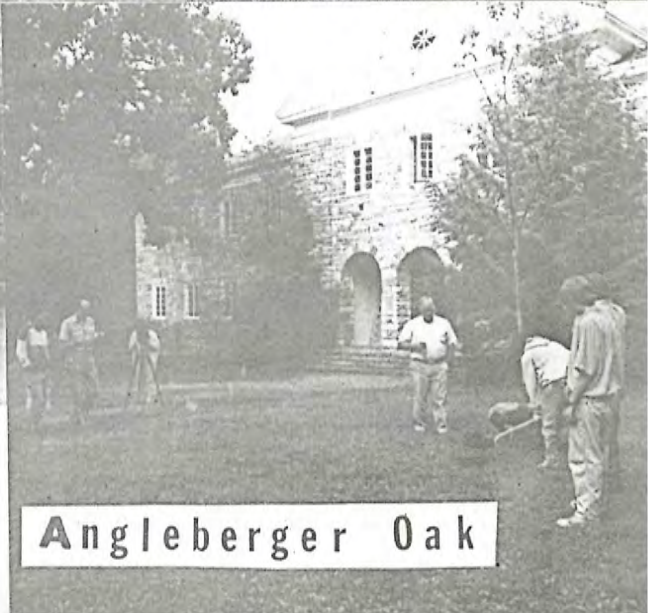
Spencer Tomb 3 July 1989



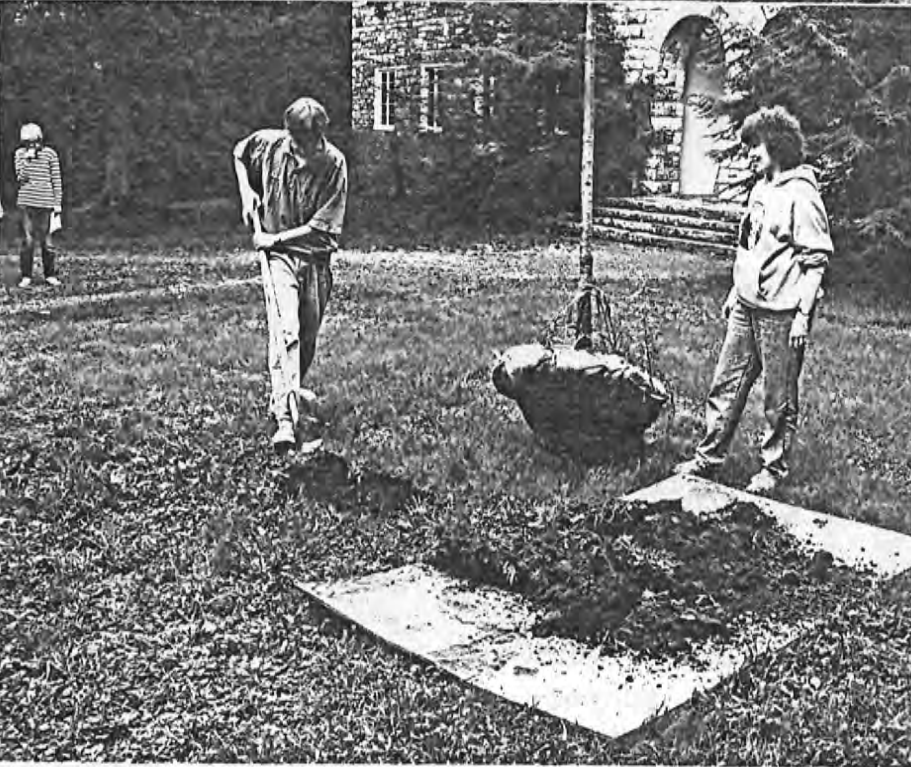
end of term ends with tree planting



20 Years!!



Angleberger Oak



how many Mt Lakers does it take to plant a tree ?

a hole bunch!

1st Term



CHARLIE WELCH, JERRY WOLFF, GREG HOLLEY



ORNITHOLOGY: Sean Skaggs, Jim Kar: Susan Earley



BEHAVIORAL ECOLOGY: Bina Chaudhari, Gray Rand, Greg Holley, Lise Rowe, Jennifer Bryant, Regina Etheridge, Tibor Lazar, Erik Westerlund, Jerry Wolff, Peter Coccaro, Janice Engle

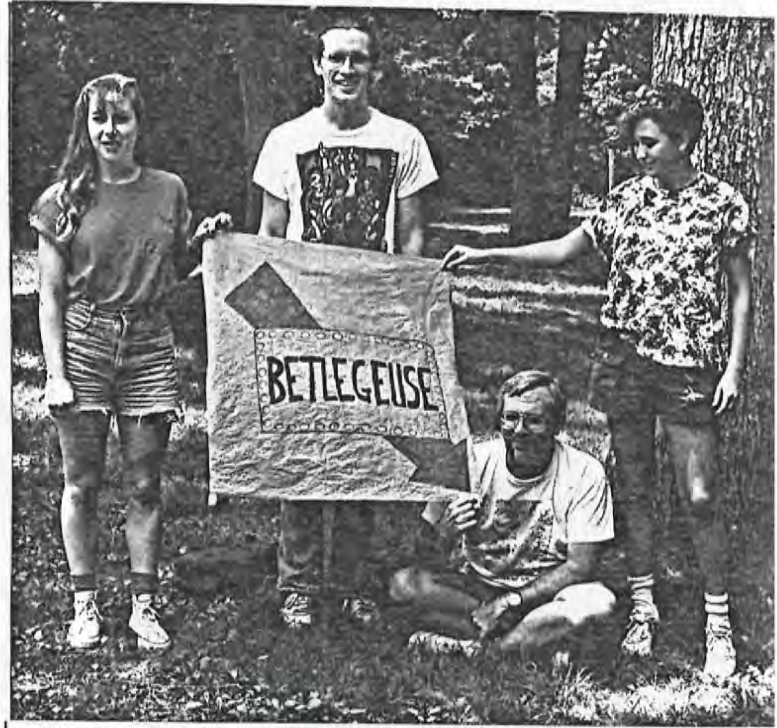


PLANT TAXONOMY: Safianu Rabiou, Spencer Tom

Researchers



JUNCO: Bruce Henderson, Mike Tavel, Licia Wolf, Sammrah Raouf, Dan Cullen, Ellen Ketterson, Val Nolan



BETLE: Tracey Omega, Mike Whitlock, Dave McCauley, Leah Bowanko



SILENE: Bernie Roche, Tom Angleberger, Arlan Maltby, Janis Antonovics, Kate Matthews

Walton Lecture July 27



BEHAVIORAL ECOLOGY

How do I begin to describe a "class?" Is it best represented through the people, the students and professor, or is it rather knowledge imparted through five weeks of intense field work and class work? Without a doubt, the people best reflect a class and its success or failure. They either leave satisfied and enriched or bitter and disappointed. I don't believe anyone in our class left with the latter emotions.

We knew after the first few class meetings that our effort in Behavioral Ecology would be well worth four credits. Jerry Wolff, our professor, told us in few words that there would be little difference between this course and a regular graduate level course. He was true to his word! Two chapters per night out of our text combined with written analyses of data kept us busy. Soon, terms like "sexual selection," "evolutionary arms race," "conditional strategies," "mixed strategies," and especially "ESS" became second nature to us. Class discussion was emphasized by often vigorous debate. We were never at a loss for a good environment for these debates. Whether the location was Wind Rock, Bear Cliffs, or even a swelteringly hot van returning from the North Carolina Zoo, we could stimulate discussion among ourselves about these ideas in which we were immersed.

But we were exposed to more than just bookish lectures. We had the opportunity to learn the behavior, scientific names, and location of most of the mammals on our mountain at one time or another, including everything from Marmota monax to Tamias striatus. And, of course, I don't believe anyone will forget our cooperative efforts to "tag" and "flag" every chipmunk on the station. But we extended our research efforts into many other animals, including bullfrogs and acorn ants.

More than the studies, though, we will remember the faces, the laughs, and even the long nights at the computer. We grew very unified as a class, I think, thanks not only to shared experiences but shared emotions. We saw the pain caused by exhaustion, the embarrassment of speaking in front of the class, the anxiety of handling that first mouse, and even the joy of completing a long assignment.

Through a common bond of living and learning together at the Station, I think the members of Behavioral Ecology has a memorable summer experience.



Peter and Gra
getting
valuable
discretion
points!

→
Yu taka (what's
he doing here?)
Lise
Regina
Jerry (the one
with the whip)



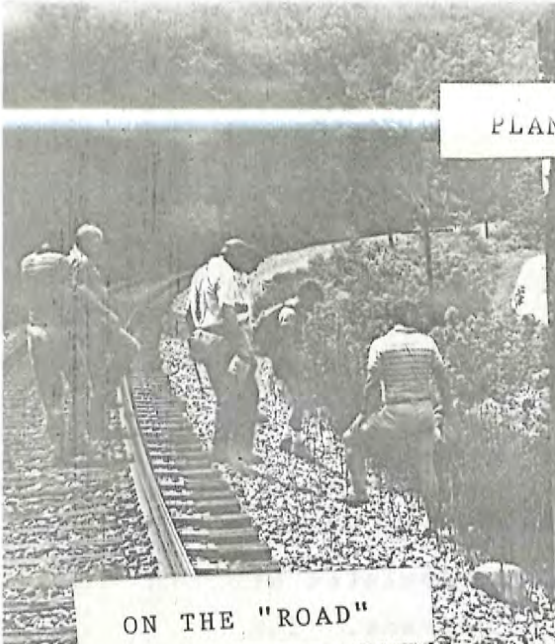
These
are
what?!

PLANT TAXONOMY

It was a hot humid morning below the mountains. The plant tax instructor, Spencer Tomb, and the class which consisted of Chris, Nuria and I set to walk the famous Shale Barrens. The rocks are known for their unique plant life, and we hoped to make some collection of such endemic species as shale evening-primrose and shale leatherflower. The hard shale-rocks, Spencer was explaining as we hiked up, date back to the Devonian era or even earlier. Just as Chris was leaning to rest himself on a piece of rock, Nuria gave out a loud noise from a short distance below our position. We ignored her for a moment thinking that she was merely enjoying herself. Nuria screamed again and we paid attention. What we saw was most incredible. Believe you me her left hand had been completely grabbed ankle-high by one of those rare occasional meat-eating plants. We tried very hard to help her out of the grip of the vicious plant without success.

The solution finally came when we released some insects on the same branches that gripped Nuria's arm; the branches and leaves momentarily released to grab the insects and Nuria's arm was pulled free. The field trip ended there and then.

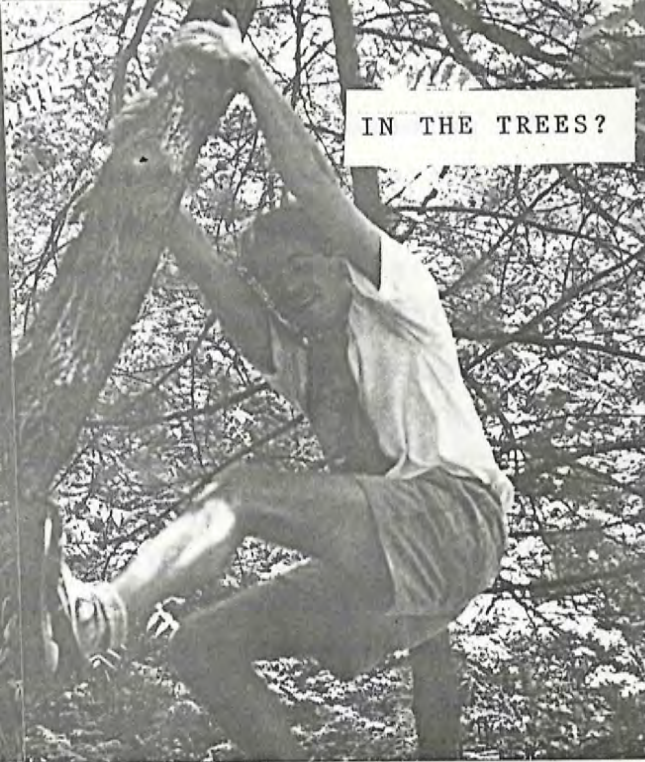
PLANT TAX...



ON THE "ROAD"



IN THE FIELD



IN THE TREES?



ON THE ROCKS!!!

CASUAL SCIENCE

KIDS! IT'S The LEAH Paper Doll Book

Here's Leah in the "Casual Science" outfit!

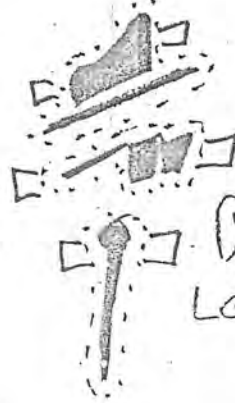
Press Her in these other costumes!



Evening Gown Leah!



Outer Space Leah



Leah's Floating Head!



Puffy Duck Leah



Mona Leah



Blue Leah



Sycho Leah



Really Tall Leah!



Punk Leah

Transparent Leah



BAT LEAH



Stick Figure Leah



Leah wearing a Charlie Werth mask

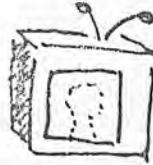


Next Week:
Paint Tray
By-The Numbers

Really Short Leah



Max Leah



Direct from Austria...

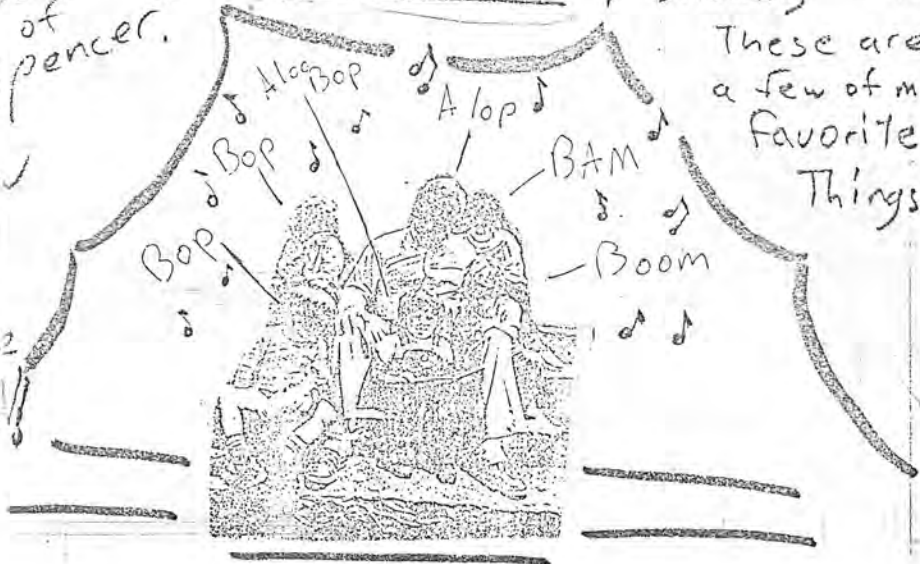
The Von Toomb Family Singers

You fell in Love with them in the Movie "The Sound of Spencer."

"The Hills Are Alive with the sound of Spencer."

"shooting Rats, shooting Deer, shooting Elk, These are a few of my favorite Things."

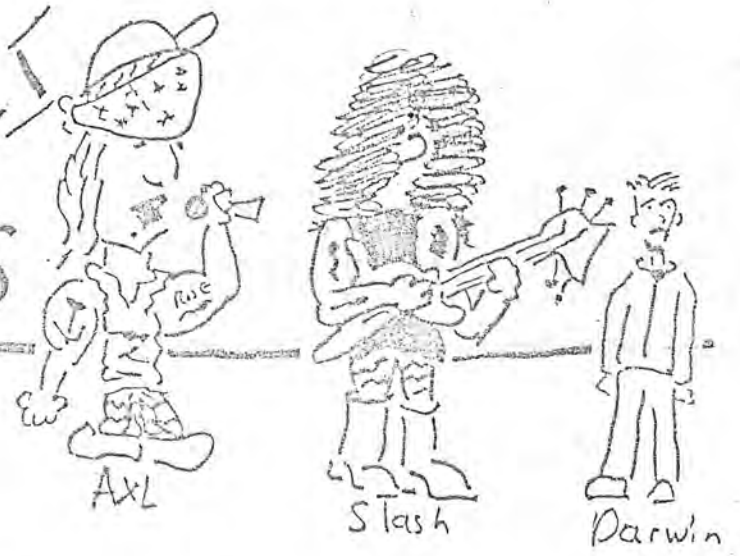
Now Fall in Love AGAIN!



CASUAL SCIENCE

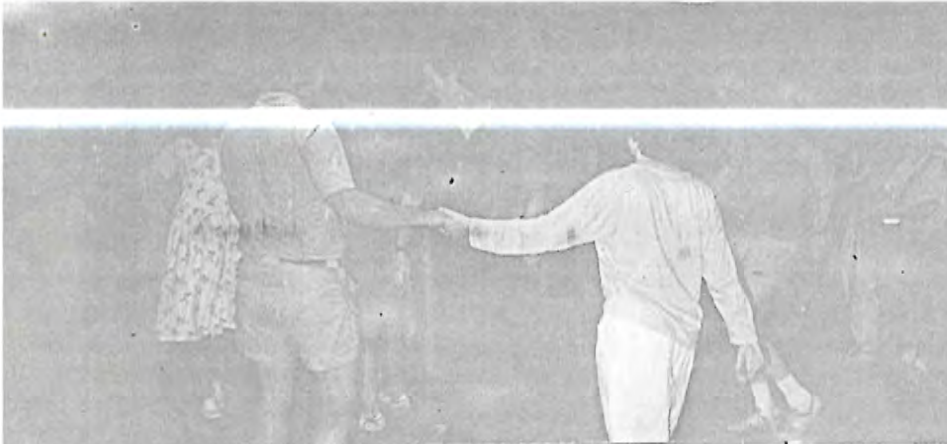
Please join Casual Science as we Welcome America's Newest Hit Makers!

GELS -N- ROSES



"Take me Down To Pheromone City Where The Moths are Mean, And Air Traffic's Busy, AH-WAH-AH-FAH-NYUH-AWAAA! Chorus "AAAHH H H! AAIGHHH! UG!"

* Screamed to the "Tune" of "Paradise City"



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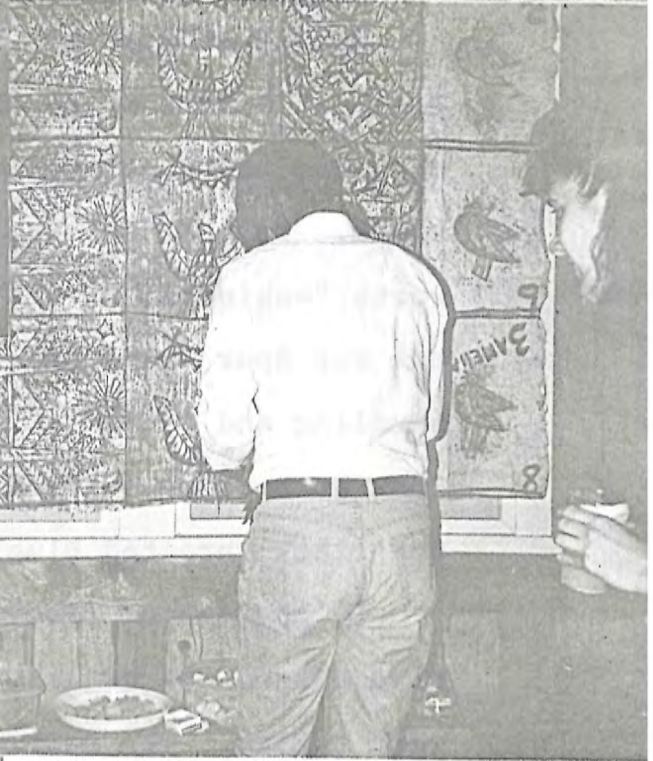




A picture
is
worth...



4th Annual Progressive Party



to be...
the...
the...
the...
the...



Aloha

Not everyone at Mt. Lake gets to experience the early morning. In the ornithology class led by Dr. James Karr of Virginia Polytechnic Institute and State University, we developed a keen appreciation for those dark, windy, pre-dawn hours. We didn't have the luxury of sleeping until the breakfast bells, but we traded that for some great experiences walking the station grounds. The birds singing at that hour produced a wonderful racket. Blackburnian Warblers, Chestnut-Sided Warblers, Indigo Buntings, Robins, Dark-Eyed Juncos, Rufous-Sided Towhees, and Wood Pewees all chipped in.

On a number of mornings, the class hiked down the War Spur Trail at 5:30 A.M. to mist net birds. As we hiked in, the Wood Thrushes would be making flute like noises in an otherwise quiet woods. To hear those eerie sounds in the misty dawn hours was worth "waking up in the middle of the night." Mist netting on the War Spur Trail provided a great opportunity to practice handling and banding birds, and it allowed us to get a close up look at some exciting birds, like the Black and White Warbler, the Black Throated Blue Warbler, and the Louisiana Waterthrush.

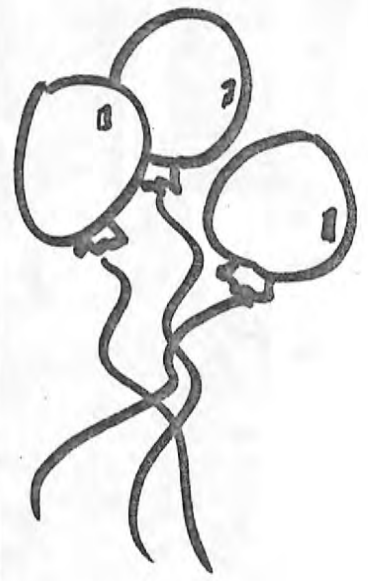
By the end of five weeks, we had a species list of eighty five birds. We usually added at least one new bird each time we went hiking. The best part was that we saw every warbler that occurs in this area except the American Redstart. So if your tendency is to wait for those breakfast bells to start your day, next year take a few mornings to see what the other half of the day is like!



C
I
R
C
U
S



peanuts
popcorn
sno cone





Beetlejuice genes now in biotechnicolor

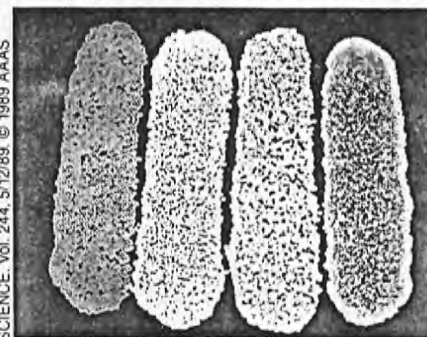
"Beetlejuice" may be *passé* by Hollywood standards; the popular comedy film has been gone from theaters for months. But Beetlejuice II is coming soon — not to local theaters this time, but to a biotechnology lab near you.

Researchers working with Caribbean click beetles have isolated the genes coding for bioluminescence from the juices of these glow-in-the-dark bugs. Having inserted this DNA into bacteria, they have developed a multicolored system of "reporter genes" they say will allow scientists to measure simultaneously the activity of several otherwise invisible, spliced genes in cell cultures. Until now, reporter gene systems — which indicate when a gene is turned on — have necessitated much more complicated procedures and could only track one spliced gene at a time.

Keith V. Wood and William D. McElroy of the University of California, San Diego, and their colleagues started with the Jamaican click beetle, *Pyrophorus plagiophthalmus*, a distant relative of the firefly. Like fireflies (which are beetles, not flies), click beetles contain light-generating organs in their abdomens. But unlike fireflies, click beetles glow in a variety of colors.

All bioluminescent beetles, including fireflies, produce colored light by enzymatically cleaving molecules of an identical protein substrate, called luciferin. Different enzymes, known collectively as luciferases, cut luciferin in different places, producing various colors of light. Wood and his co-workers cloned the genes for four click-beetle luciferases and inserted them into the common intestinal bacteria *Escherichia coli*. When they bathed the bacteria in luciferin, characteristic colors appeared within about 30 seconds, indicating gene activity.

By linking various luciferase genes to other genes of interest spliced into cells, scientists can now measure the relative activity rates of multiple genes in cells



Four streaks of luciferase-producing bacteria. Each color streak contains hundreds of bacterial colonies.

over time. The one-step process (scientists simply add luciferin and measure light intensity for each color) is far easier and more than 100 times more sensitive than current methods, the researchers report in the May 12 *SCIENCE*. In the standard reporter gene system commonly used today, scientists spend hours separating and measuring enzymatically altered, radioactively labeled substrates.

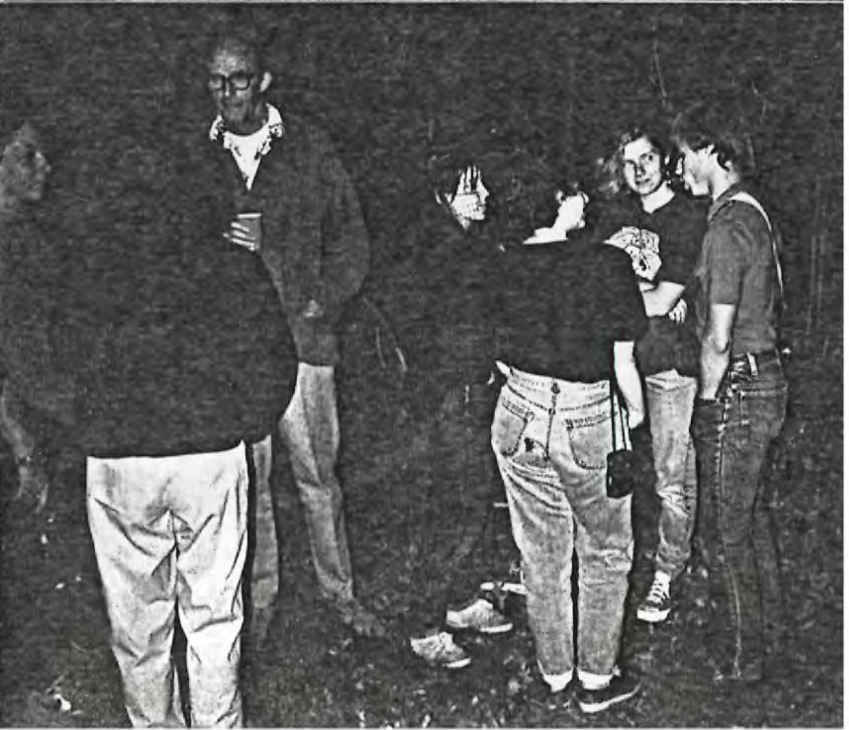
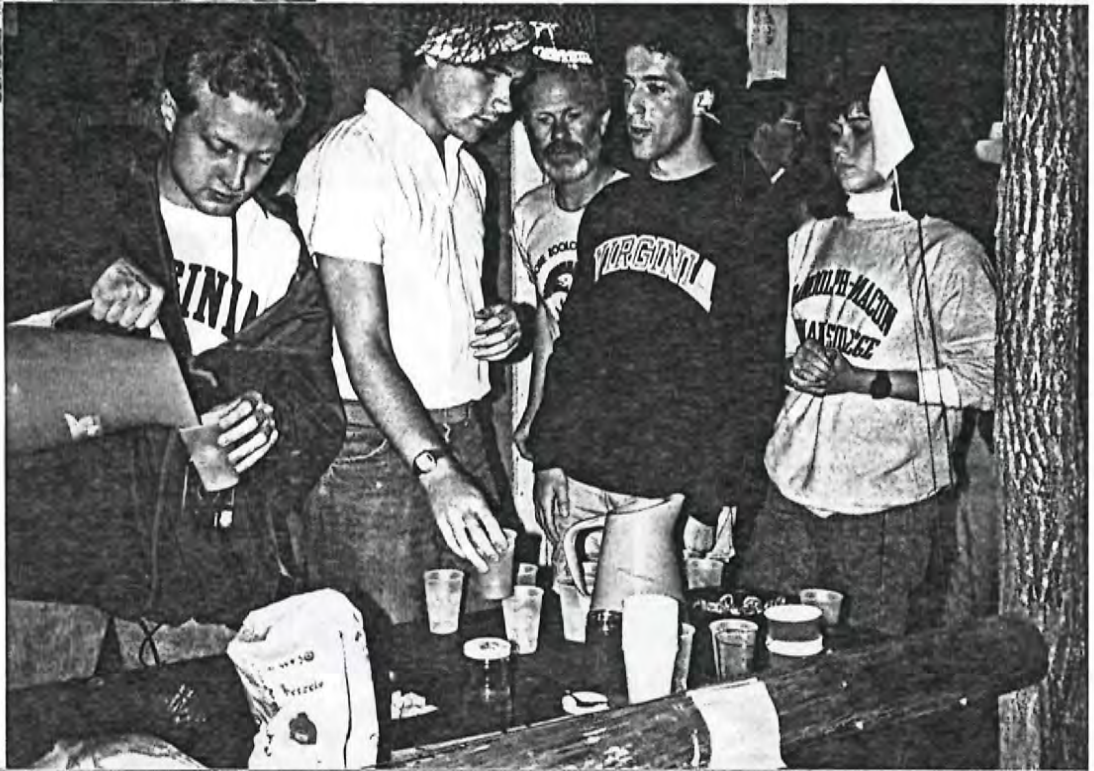
"A real revolution has come from our ability to look at how genes work," says Wood, who first basked in the glow of scientific luminosity in 1986 when he and co-workers made the world's first glow-in-the-dark tobacco plants by splicing into the plants a luciferase gene from a firefly. "We've gotten to the point now where we'd like to look at how more than one gene works at a time. This supplies a marvelous technology for allowing us to go that next step and look at the coordination between genes."

The researchers have identified minor variations in luciferase genetic sequences that account for the different colors — a finding that suggests they may soon be able to add to their *Pyrophorus* palette. Soon, says Wood "we may be able to do things with color that we haven't yet seen in natural systems."

— P. Woicie

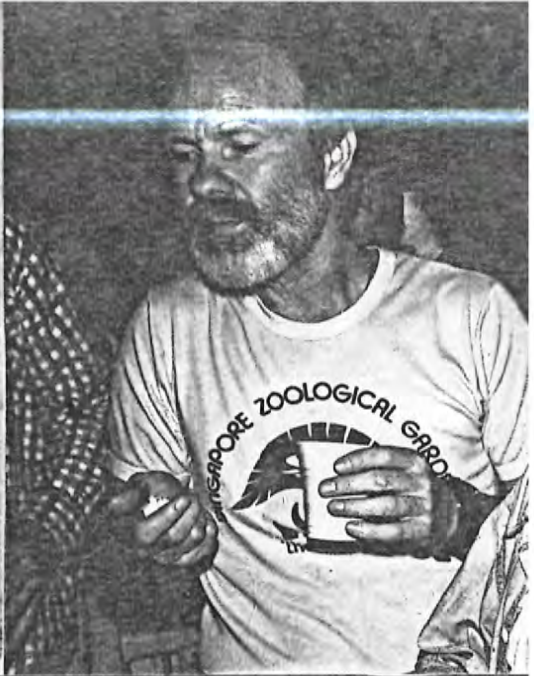


MAMMALS OF THE WORLD



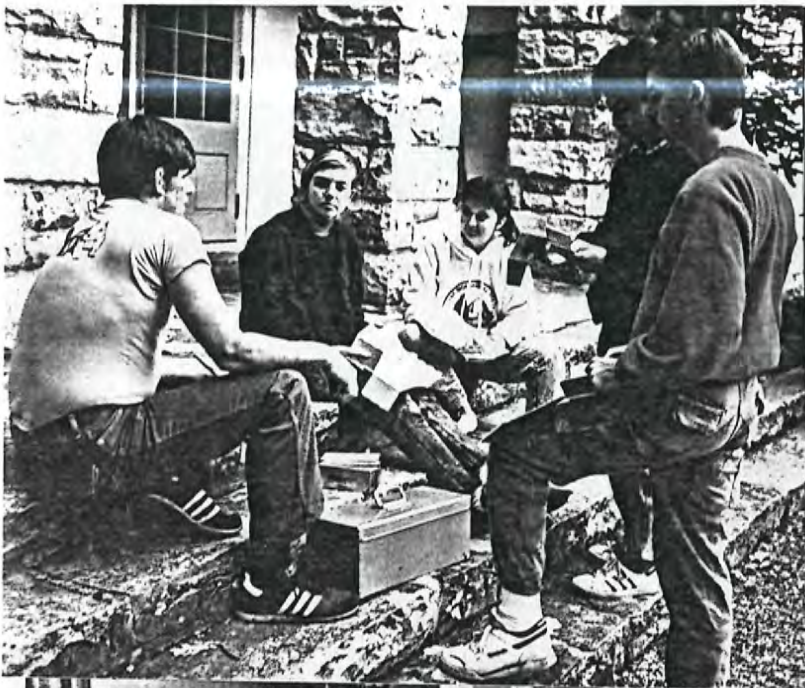


ZOMBIES



A D U L T
T H E M E

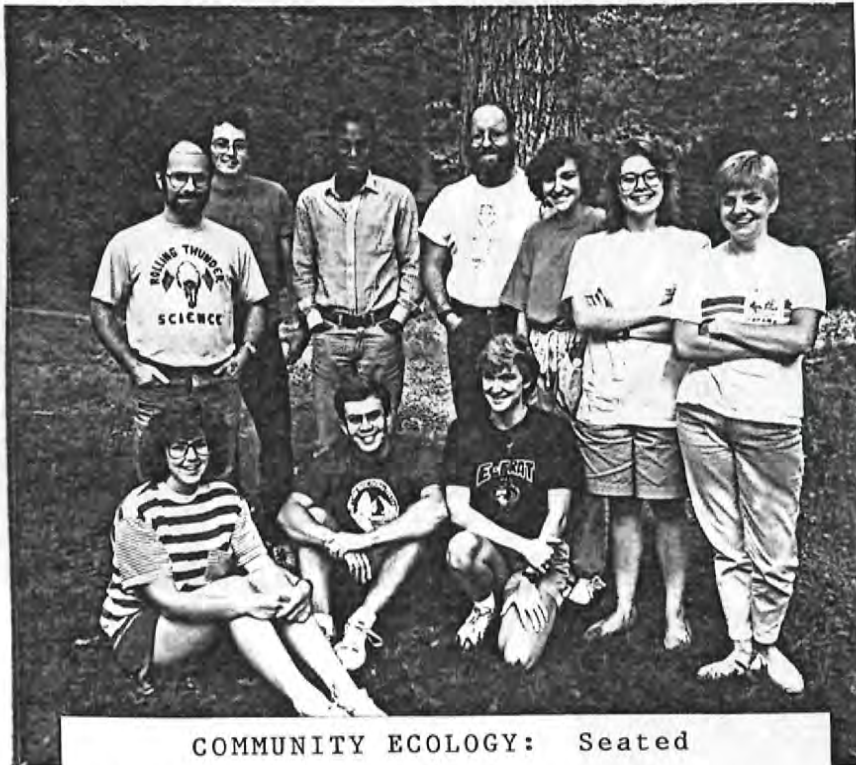
HARD AT WORK





2nd Term Staff:

Jim Murray, Henry Wilbur, Dan Burke,
 Joe Travis, Jack Cranford (VPI), Mike Timko



COMMUNITY ECOLOGY: Seated

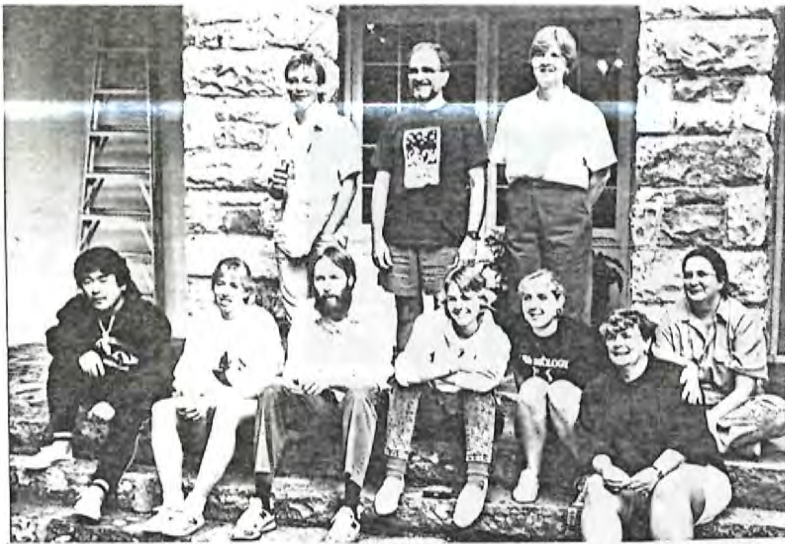
COMMUNITY ECOLOGY: Seated-Sherry
 Kuhn, Leonard Albright, Sandy Hepner,

standing-Joe Travis, Sean Skaggs,
 Safianu Rabi, Henry Wilbur, lara
 Palinscar, Siana LaForest, and Lucy
 Mayfield



MAMMALOGY: Kneeling: Jack Cranford (VPI)
 Shigeru Sugaya, Standing: Kristen Marxen
 Greg Holley, Angela Doss

Workshops



mtDNA: Yutaka Obata, Barbara Lubinski, Colin Stine,
Connie Pennington, Wendy Oran, Betsy Ashbrook,
Betty Baker
(Standing) John Slapcinsky, Joe Chinnici, Ann Richards



ALLOZYME: Yutake Obata, Charlie Werth,
Sean Skaggs, Chris Blum, Donna Cicerello,
Jim Parks, Regina Etheridge, Janice Engle



MOLECULAR TECHNIQUES: Barbara Lubinski,
Wendy Oran, Dan Burke, Jennifer
Morlang, Betsy Ashbrook, John Slapcinky,
Mike Timko, Betty Baker

Mitochondrial DNA--or as we thought it: BAND EXCITEMENT

This course gave its students a somewhat skewed view of nature. Any organism we happened to see in the woods elicited the same question: what's the best way to grind, pulverize and homogenize it down to its nucleic acids? With a class that ranged from two PhD's to undergrads without a genetics course, Colin Stine has a challenge designing lectures at an appropriate level. (Normal? Molar? Molar?... I thought that last one was a tooth!). Everyone loved this bearded, barefoot, baby-juggling professor and his eight-lettered eighties ladies--Jeananne, Maryruth, and Sarabeth. He taught us the length of the steps of the protocol are directly related to the length of the time to the lunch and dinner bells.

Joe gained fame for his willingness to drive on any rainy, storm-tossed night down the mountain to the Pembroke Dairy Queen and he and Betty and Ann as ex UVA grads had a good time renewing acquaintances and telling war stories. Ann, provided the treats for the good-bye party and spent her spare time counting the Laing bats. She was also part of the good couple with John as her lab partner, she the lack and he the owl. John kept the coffee coming (whether you wanted it or not) so that after hours he might get some night-time companionship. Then there was the Vampire Trio or the Sanguine Sisters--Betsy, Wendy, and Connie. They decided to use blood as a mitochondrial source but after the first week had to change their protocol from human blood to rodent livers when people started avoiding them. (It's very uncomfortable when you meet someone and they stare at the inside of your elbows instead of your face). Betsy's nursing skills were used not only for drawing blood but also for handily removing stitches from Joe Travis' back. She and her roommate, Betty, provided all the rodents necessary for the ensuing experiment by running traplines in their room above the laundry. Their final total was 15. Connie had a long wait for her bands but they looked fine on the last day. She was slowed down a little because of the time she had to spend chasing her escaping specimens around the lab. Wendy soon acquired a fine ear for catching the sound of imploding 15 ml Corex tubes in the Sorval. Betty kept busy turning over stream stones hunting caddisflies and always seemed to have whatever we needed in her "possible box" from home. She was organized, well-equipped and kept the class going but for God's sake don't let her near the Polaroid camera. She and Yutaka were partners and he was into video-taping and provided excitement by letting his wood/cockroaches get loose in the lab. It was fun to watch him take class notes in Japanese while in the middle of REM. Barb was well-liked by everyone and between running, volleyball and tie-dying managed to produce the earliest, most consistent, and most beautiful bands in our group. So Colin ended up 9 for 9 for bands. Way to go-mt DNA!

MOLECULAR TECHNIQUES FOR FIELD BIOLOGY

The maiden voyage of this workshop inherited six graduates from Colin Stine's mt DNA course. Drs. Timko and Burke were occasionally heard to murmur comments about "a little knowledge" and "dangerous things". Mike Timko, when not ruthlessly batting bats out of his cabin, was a mild-mannered peaperson who never met a piece of equipment he didn't want to autoclave. His co-anchor, Dan Burke, was an easy going yeast man who never used a pipette he didn't lick. They left the class mulling such questions as:

To autoclave or not to autoclave?

To throw out disposable pipettes or to wash them up?

What'll it be? pipettemen, licked bippies, or just suck it up?

Who can forget the lab jokes about arthritic women; the four-limb amputees (Art, Bob, and Matt) and the number of UVA faculty it takes to change a light bulb? Barb provided us with belly dancing in lieu of a shaker. John's lanes were as easy to identify as his molluscan motto: "It's time to go to sleep snails, here comes winter". Wendy, who at first had the regrettable tendency to toss out her DNA supernatant and save the waste pellet was the only one of us who could be gramatically correct when she said--"Look at my DNA!" Big Al from Arkansas was a fount of informative hints including how to make bubble blowing solution from S.D.S. and how to remove stirbars from hot agarose solutions.

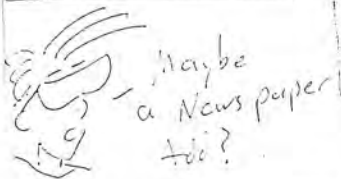
Jenny generously shared her family with us and trooped the countryside hunting ferns. Betty continued to be organized and pretty helpful about most things but was a terror in the darkroom. She single handedly caused a Blacksburg film shortage due to her incredible usage of Polaroid films (Pull the white tab first and then the black one!) Connie's serial dilutions of pea genomic DNA were the envy of the class. Betsy set trapping records for the laundry room in her mouse studies and her release & recapture program for them in the lab was a continuing source of excitement.

LISTEN TO OUR ECHOES:

Where's the 20 ml pipettman? Anybody seen the yellow tips? If I've got a 20% SDS solution and a 1 M Tris solution how do I get to a 1% SDS solution that's 1mM in Tris? Where's the turn-off switch to the still? Should the Sorval centrifuge really sound like a B-52 taking off? Are we out of film already? Is there any dry ice left? Will CTAB clean up my DNA? Is the EcoRI cutting in the Hind III buffer? Help me catch these loose mice! Did you cook your gene screen or just UV them? What is that smell? Who's got The Mountain Lake pencil? My pellets won't come back. Anybody seen Mike? Anybody seen Dan?
H-E-L-P-P-P!!!



Hmm...
How are we
going to get
A Bunch of College
kids to come to
The Station and
save their lives
away as Research Assistants?



Maybe
a News paper
Ad?

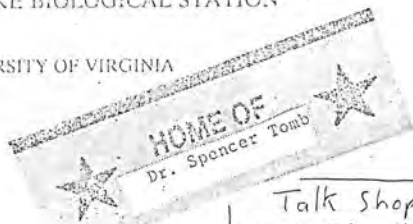


Great Idea!
I know just what
to say!



MOUNTAIN LAKE BIOLOGICAL STATION

UNIVERSITY OF VIRGINIA



See Giant
Leptiles!

Talk Shop
with Charlie

Count
Fruit!

Make
New
Friends

Count
Fruit!

Work in a
Study Grid with

TOTALLY NATURAL
• HOME OF THE
JUNGLE MAIDENS
(Our Hostesses)
• 25 DANCERS
EVERY DAY
• OUR FOOD IS
"SIMPLY MARVELOUS"
Served Noon to 3 P.M.
• WE ARE FULLY LICENSED
FOR ADULT ENTERTAINMENT
AND COCKTAILS
PLUS — NEW DANCERS
EVERY WEEK

Flexible Hours

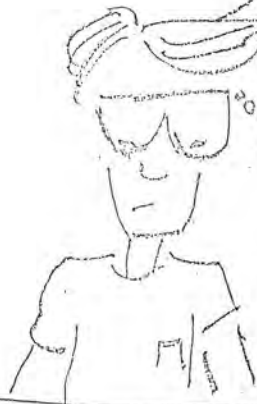
TARZANA*
"QUEEN OF"
SEXUAL STRATEGIES
IN THE AMERICAN BISON
SHOWTIMES
1:00, 6:00, 9:30,
MIDNIGHT



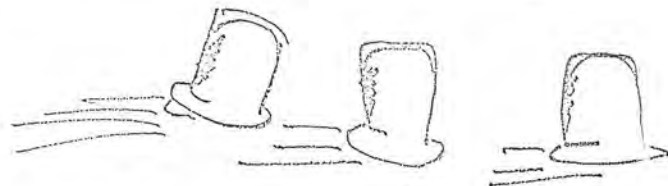
*Actual Co-workers may
Vary.



C'mon
Kid.
Wanna
try again.



I'm
sure
I'll
get
a Band
This
Time.

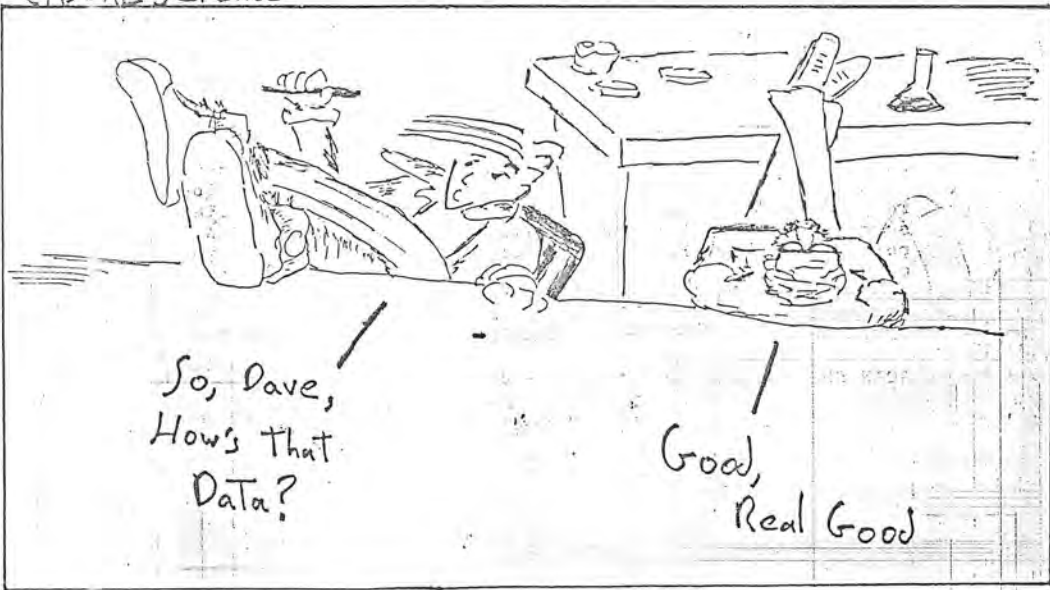


The OL' Gel Game

First there was some Hairy Guy Banging rocks Together...
 Then there was Science! Then new New Science,
 Bio-Science, Genetic Science, Darwinian Science, Electro-Science,
 Quantum Science, Real science, and Three-bean-Science.
 But now there's

CASUAL SCIENCE

CASUAL Science



So, Dave,
How's that
Data?

Good,
Real Good

CASUAL SCIENCE

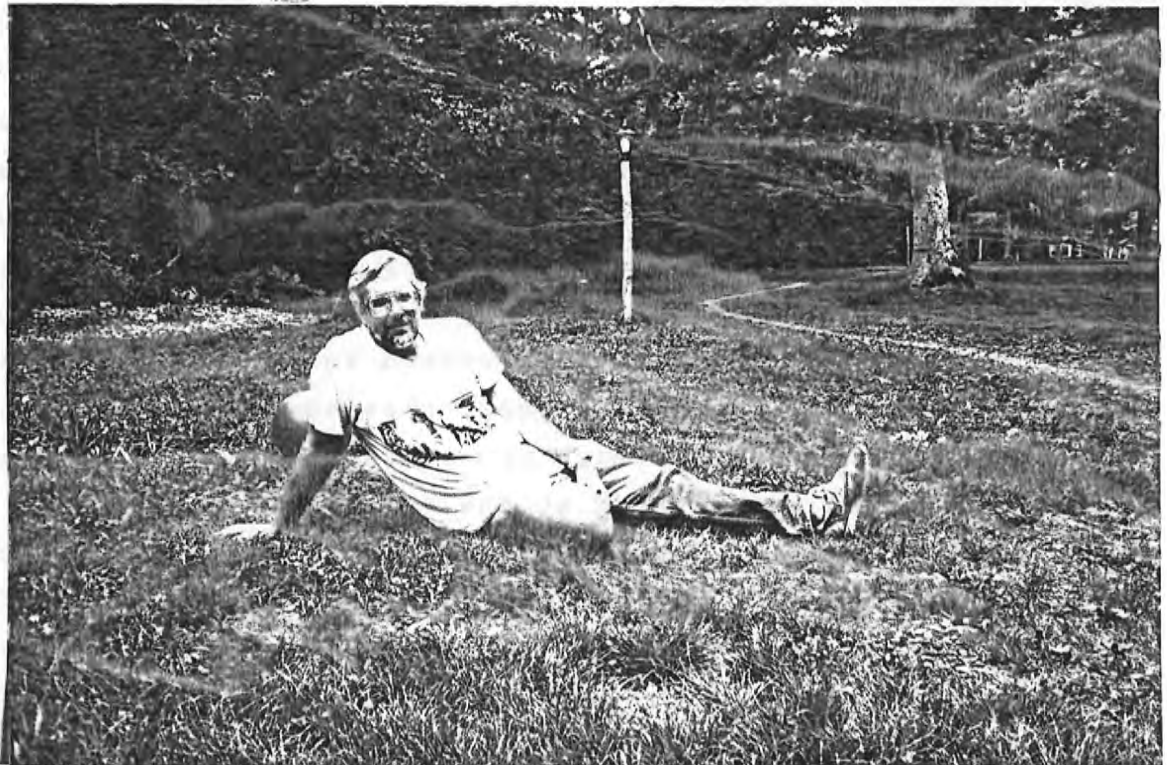
data something

Those crazy kid's from The 60's are mostly grown up now. But trying to live a Casual lifestyle in the 80's is an often uproarious, often touching, always Scientific tale. A scene from this week's episode





*CASUAL
SCIENTISTS*



OUR TRIP

by Diana LaForest

On Thursday, the tenth of August my Community Ecology class took an exciting and fruitful trip to Cranberry Glades in West Virginia, accompanied by Mary Ann and Beth. Joe drove his mini-van with Leonard "Love Chunks" Albright and Lucy seated close together so that their combined squeals could maximize the volume level in his van. Safianu, remarkably volunteered to join them.

Henry and Mary Ann took Sandy, Lara, Sean and I in the Station van where we slept soundly for most of the drive except when the words "food" or "bathroom" were mentioned.

After a short time we stopped in Almost Heaven, W.VA. to eat at Hardees. Indeed, the food was so close to heaven that I had to ingest huge quantities of Di-Gel to bring me down from the clouds. Everyone else had a heavenly migraine. Before we reached Cranberry Glades, we stopped at a little limestone cave where Henry showed us pieces of dolomite that had ring-like deposits on them, much like the drains in the Station Showers. Henry also related to us the legend of the famous Swedish explorer Franz Dolomite, for whom these rocks were named. He was said to have been so powerful that he could rip apart soda machines with his wrists.

With our appetites whetted for the adventure to come, we arrived at the Cranberry Glades in high spirits. Here we saw many strange and wonderful organisms. The most fascinating of them all was the sundew, a carnivorous bog plant over 6 ft. tall with huge glistening fangs. Leonard "Love Chunks" Albright, in a vain effort to prove his manliness, attempted to stick his head in its gaping mouth. The hideous beast chomped down on his neck and sucked out his brains which was of course no great loss.

On the way back, we stopped at the Visitors Center, which featured displays of the native fauna stuffed and twisted into attractive poses. Joe commented on the stuffed bobcat eating the stuffed bunny: "Good, I hope he claws his eyes out". Our Community Ecology class fervently hopes that no one gives him an automatic weapon for Christmas.



MAMMALOLOGY CLASS FIELD NOTES

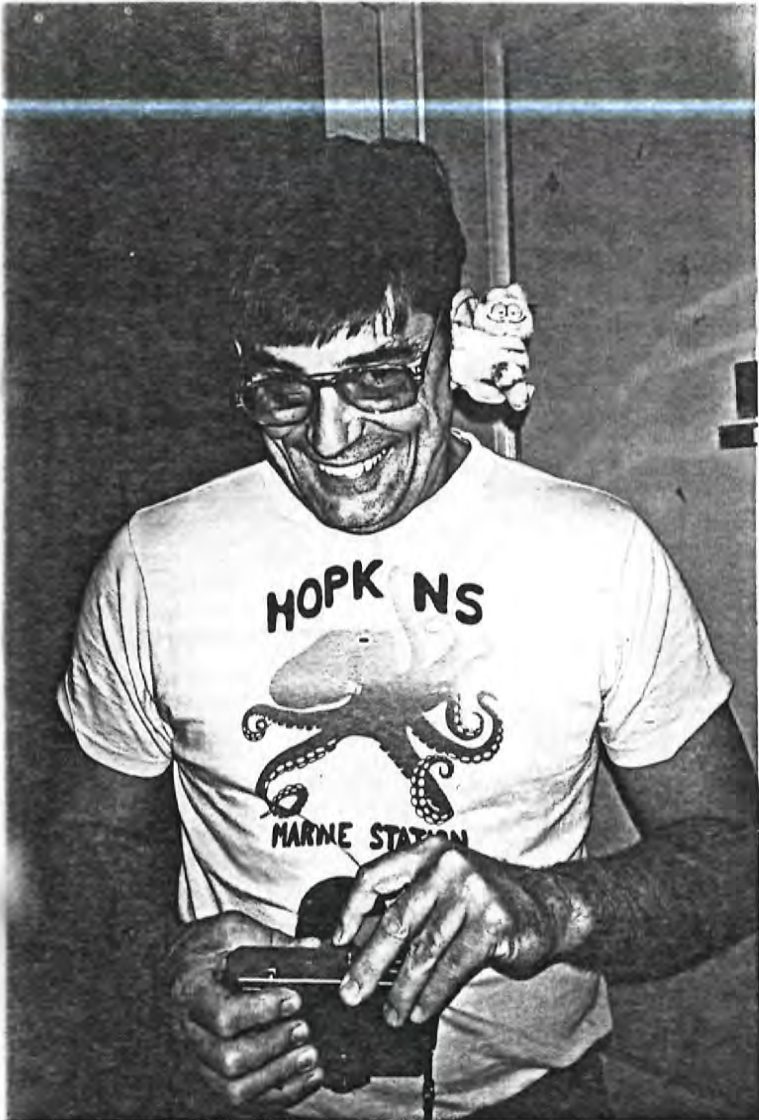
J.A.
Cranford
1989

JOURNAL

19 JULY-
AUG. 18

VIRGINIA: GILES COUNTY,
MT. LAKE BIOLOGICAL STATION
OBSERVATIONS:

1. During the Pandapas Pond Beaver Expedition, Dr. Cranford gracefully fell over a "small" branch soon after laughing gleefully at Kristen for doing the same.
2. Shigeru hurling a 15g Meadow vole 20 feet after the shock of being bitten on his first trial handling a "wild animal".
3. Uncooperative animals (large or small) on the dining hall porch whenever Dr. Cranford would give a demonstration. "Unbitten in the field but mortally wounded in front of the entire Station".
4. Kristen casually requested "could you just grade these skins until I'm sure I have an A?"
5. Explaining "hubba-hubba" to Shigeru.
6. Kristen's neverending verbal assault on Greg.
7. Slavedriver Cranford with his chained students.
8. Who put the Garfield in the trap and the museum collection?
9. Shigeru's request to quickly depart the group after yelling "pain, pain".
10. After shutting the backdoor of the station wagon on his own hands and lacking keys to open the door, Dr. Cranford was me with no assistance and resorted to laughing hysterically.



and mammalogists !

OH THOSE

MAMMALS



"These little ones are Sorex...These over here are Peromyscus...Ooh! This must be a Microtus!"



IT STARTED SO HARMLESSLY ...

LET'S GAMBLE ON GENOTYPES!



Luigi's Suggestions on Having Fun in the laboratory.

- * Bored?
- * Lazy?
- * Demented?

Try These!

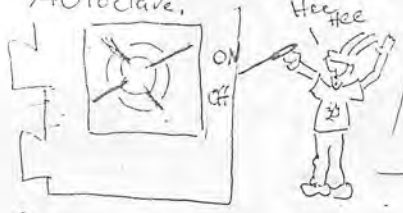
Remember!
 Even though we're
 Having fun...
 Safety First!
 As they say in Jersey...
 ITS all fun and
 Games until somebody's
 Diploid gets poked out.



#1 WARZONE

PHU...
THOO...

in the Autoclave!



#2 Playing "Hot Potato" with Biotoxins...



If you drop this Potato
 You'll begin to Mutate! So...
 Don't Drop the Bio Toxin
 Don't Drop the Bio Toxin
 Unless you want an
 unnatural Glow.
 You Better catch
 That HOT POTATO!

Next Week:
100 New Games
using used Syringes!

CHARLIE
HAD
AN
IDEA



THEN THE
BOOKIES GOT
INVOLVED

THEN
PETE
ROSE

THEN THE
MAFIA

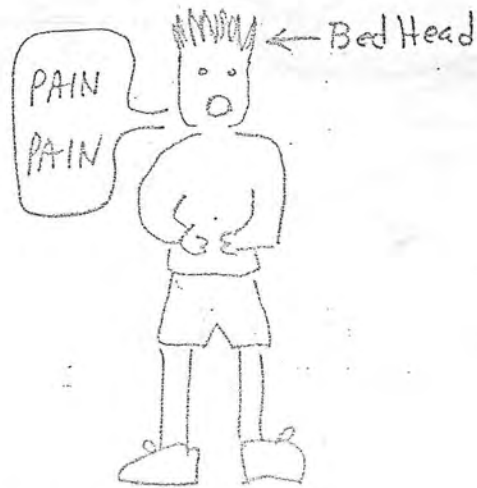
BEFORE WE
KNEW IT...



Cranfordicus
ulcericus



Shigerus
lightningus

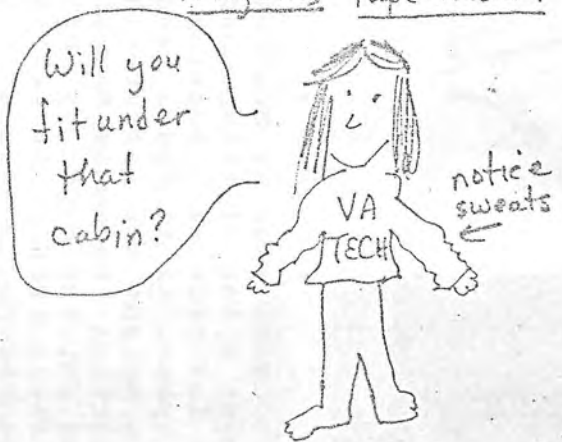


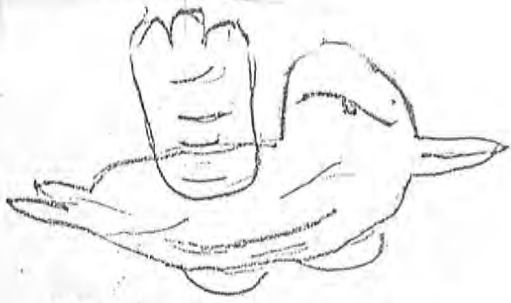
Greggus
worrywortus



Marxenicus
gradicus

Cold blooded
specimen:
Angelus tapemeasuri





Black-and-White Warbler

age 5

by SARAH BURKE



Casey Burke age 9

This year at Mountain Lake, I had a very fun time. I learned about a lot of things and helped the scientists do their projects. My favorite was checking the mist nets for Juncos. When we caught a Junco, if it had a band, we wrote the number down and checked its weight and measured him. Then we released him. I also liked checking the mouse boxes. I liked it when they pulled out the cotton and got the mouse by the tail. I always got excited. We went on a field trip to White Pine Lodge. The thing that I liked the best was the Polypodium sp. Every time I see a rock I check for salamanders. I like them alot.

One night we made tie-dye shirts. I loved unfolding them and seeing what they looked like. One day we hiked to Moonshine Dell and sailed boats on the stream. The home-made boats usually won the races and the Hi-C sip-up boxes worked too! On the way to Moonshine Dell we found a box turtle. We put him in a different place and when we came back, it had returned to the place we found it. Thank you everybody.



SPECIAL

EVENTS

A RARE OCCURRENCE!

Dr. Murray and 5 of his
graduate students

John Slapcinsky
Mary Ann Angleberger
J. J. Murray
Joe Chinnici
Colin Stine
Ann Richards



SURPRISE BABY SHOWER
FOR
BILL & CHERYL

CATESBY

HONEYMOON
COTTAGE
ようこそ
愛の巣へ!!

MT. LAKE CELEBRATES
WITH HIRO AND NAKO!

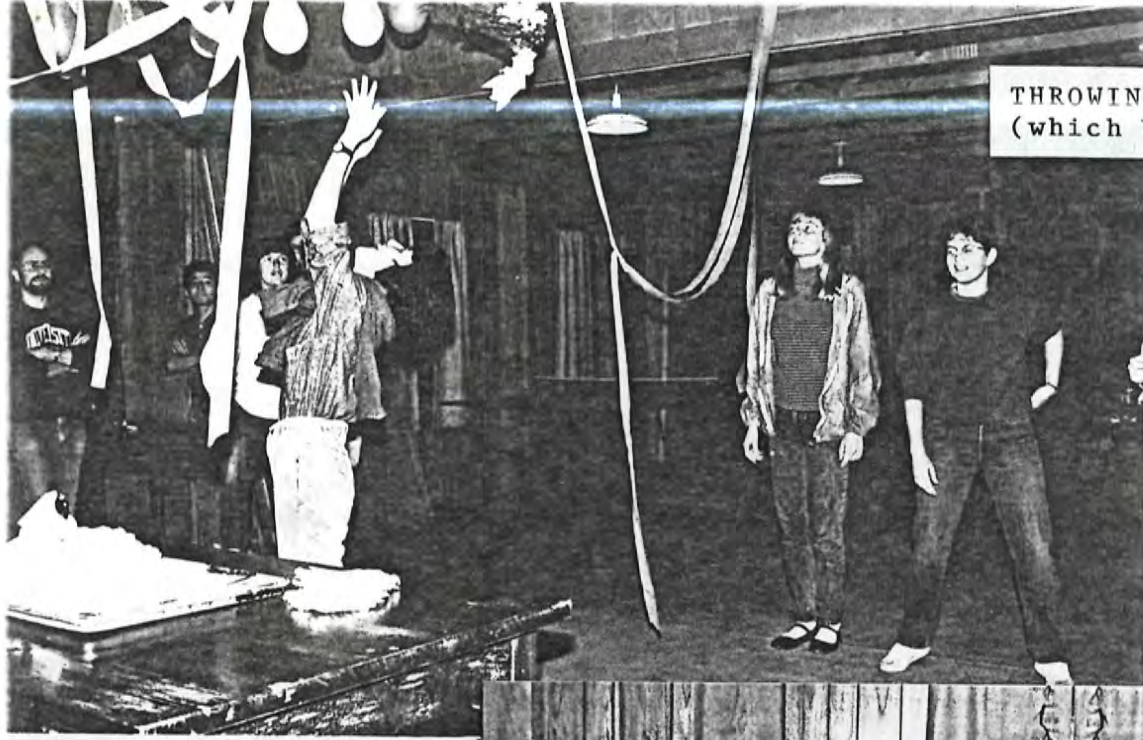
A FEW AMERICAN TRADITIONS--



CUTTING THE CAKE!



DRINKING THE WINE!



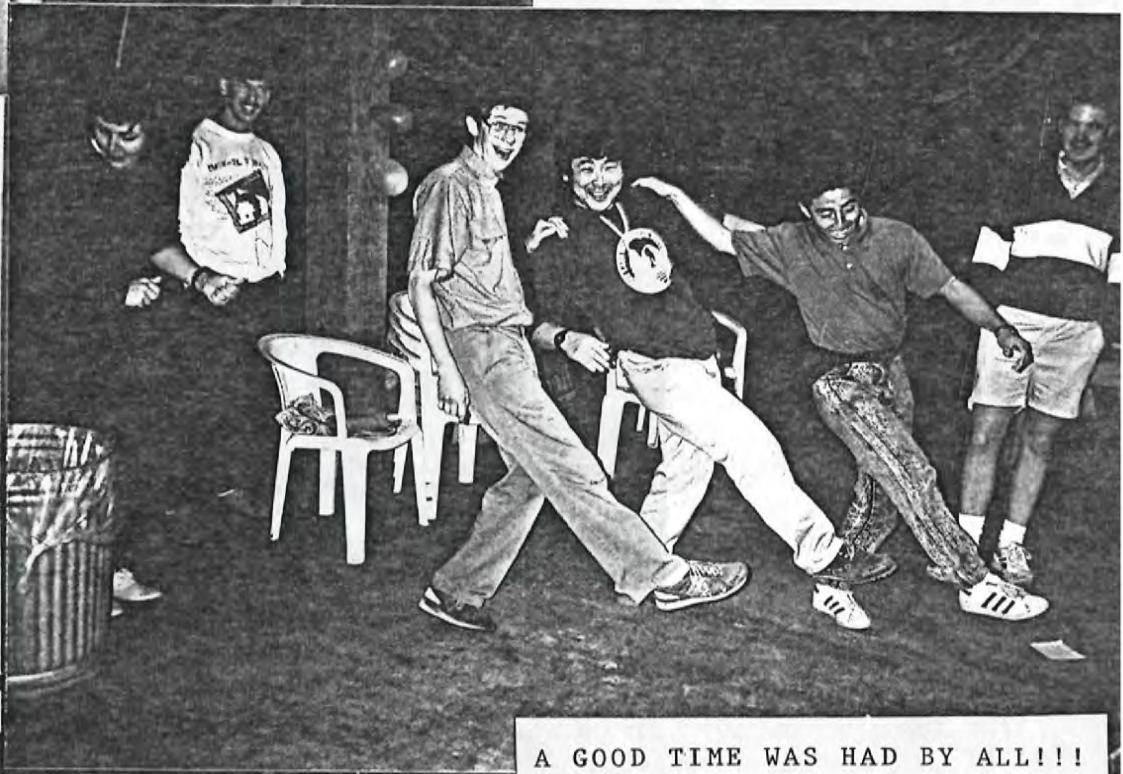
THROWING THE BOUQUET!
(which Kathy Lemon caught!!!)



OPENING PRESENTS!



ALL OF THOSE WITH JUST ONE FUSE?!



A GOOD TIME WAS HAD BY ALL!!!



QUOTABLE QUOTES

"It was moving pretty slowly until I hit it with a stick!"

"There were 3 turkeys on the golf course this morning--me and the 2 ornithology students!"

"warbler neck"

"I heard a wild boar"

"It's pretty scary out there when you're struggling for your life!"

Mt. Lake--more than just a field station!

Do you think the volleyball court's dry enough to play?

"ARE WE FINISHED TAKING PICTURES YET? I'M GETTING GNATS UP MY NOSE!"



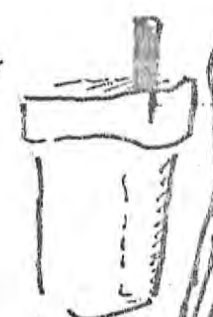
EX!
We're from the future and we...

But this important message of greeting is cutoff as Dave shouts...



Look at those neat shirts!

Mt. LAKETM
The Field Station With...
A Difference



Mt. LAKE
More than just a Field Station

Tomorrow:
Maybe there will be a plot maybe there won't!
Find out!

T-SHIRT ORDER FORM

- Check One
- () Please send me ___ Mt. Lake - the field Station with a difference t-shirts size __.
 - () Heck with the Mt. Lake Shirt!! Send me one like Dave wears.

Send \$ 9.95 + \$3.00 P&H to Dave's Sister's t-shirt factory. We also have Punky Brewster shirts !!!

Once upon a weekend dreary, while we slogged
about wet and weary,
Over many fallen logs and through deep puddles
on the lawn,
Onward to complete each task-- boys' dorms got
new porches fast.
"Hugo" added jobs to our list---cutting,
dragging, splitting, stacking...
Endurance and ENTHUSIAM were never lacking.

We must have numbered thirty or more
With all those backs and hands we got lots done
and in the process had lots of fun.
We're looking forward to a spring weekend
(without the rain)
Maybe we'll all be dry by then!

A BIG THANKS TO ALL WHO HELPED WITH PAINTING, PORCH
BUILDING, WOOD CUTTING, SPLITTING, FOOD PREPARATION
AND FOR JUST BEING THERE.

Your Dream Comes True

Adventures in Orient

No more Sushi,
No more Zen,
No more Tofu,
No more raw fish,
No more Origami,
No more Teriyaki,
No more seaweed,



**but just for unforgettable moments with
mysterious excitements ----**

**Don't miss this chance for private tours
in the unknown Far East**

V INTERNATIONAL CONGRESS OF ECOLOGY SECOND CIRCULAR

The V INTERNATIONAL CONGRESS OF ECOLOGY (INTECOL 1990)
will be held in
Yokohama, Kanagawa Prefecture, Japan
August 23 through 30, 1990
under the theme
"Development of Ecological Perspectives for the 21st Century"

Call for Papers

Official **DEADLINES** (see below)

- December 1 1989: Offer your Scientific contribution and present Abstract of your paper (Form B).
December 1 1989: State your interest in attending Symposia (Form C).
December 1 1989: State your wishes of Accommodations and attending Accompanying person's programs, Scientific visits and Excursions (Form D).
February 15 1990: Advance payment of registration fee for persons from abroad (Form A).
[August 31 1989: Advance payment of registration fee for persons residing in Japan (Form A).]

Congress Information

Venue	Yokohama National University 156 Tokiwadai, Hodogaya-ku, Yokohama, 240 Japan Telephone: 045-332-0975 Facsimile: 045-334-2439
Date	August 23 (Sun) ~ 30 (Fri), 1990
Congress Materials	Congress Program and bound volume of Abstracts will be distributed to registered participants at the registration desk.
Official Language	English

Mailing Addresses

Form A, B and C:

Secretariat of INTECOL 1990
c/o Inter Group Corp.
Akasaka Yamakatsu Bldg., 8-5-32
Akasaka, Minato-ku, Tokyo, 107 Japan
Phone: 03-479-5326
Facsimile: 03-479-2475
Telex: 02425181 IGC J
Cable: INTERCONFERENCE TOKYO

Form D:

Japan Travel Bureau, Inc.
Foreign Tourist Division
Convention Center (Ref. CD 8-7301-90)
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Facsimile: 03-276-7806
Telex: TOURIST J24418 (Answer Back)
Cable: TOURIST TOKYO

Authority promised:

**Abstracts of poster or paper presentation will be accepted
during December 1989.**

Packets of registration materials are immediately available at

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Department of Environmental Sciences
Clark Hall, University of Virginia
Charlottesville, VA 22903**

Or call him at the Office of Mt. Lake Biological Station:

804-924-3151