

Mountain Lake Echoes

1980



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MOUNTAIN LAKE NEWSLETTER 1980

Dear Mt. Laker:

The intent of this letter is to provide a little more information in a less formal way about the news and plans of the Station-related activities for the summer of 1980. The difference between formal and informal is that as written by the Director some of the information is probably incorrect and some exaggerated - but probably not much!

It does give me an opportunity to introduce our outstanding faculty for 1980 and indicate a little about Station research. We will soon be on the mountain. With courses, seminars and many interesting research projects Mt. Lake will be an exciting place. I hope many of you can plan to join us.

Sincerely yours,

James L. Riopel
James L. Riopel
Director

JLR:m1

INTRODUCING THE FACULTY

FIRST TERM

Pteridology. A. Murray Evans, Associate Professor of Botany, University of Tennessee.

AB	Oberlin College	1956
AM	Oberlin College	1960
PhD	University of Michigan	1964



Murray Evans taught at Mt. Lake in 1966 and 1970. I can tell you he is one of the best instructors we have had. He is enthusiastic and knows the flora. Evans trained with Herb Wagner at Michigan. He's just like Wagner in that when in the field, they look for ferns, but take into account anything else from the bottom to the top of the hill, or in our case a mountain. Murray's fern studies have taken him to Taiwan for two years, to Costa Rica where he helped teach tropical pteridology for O.T.S., to Jamaica and throughout most of the United States. Currently, Dr. Evans, is working on a fern flora of the southeast. Dr. Evans' hobbies include hiking, camping and whitewater canoeing (one time U.S. Master's Champion in the Slalom C-1).

MOUNTAIN WAVES

I walk in the woods
I see a silence I'm not used to
Hey babe, it's like a glassy day
On the beach when the waves are still asleep
I miss you.

I climb to where the clouds reign
10,00 miles away I feel
Until I see the endless mountains
Are rolling in like breakers
Only forest green

Hye babe, it's like living in the water
And waiting for the wave to come in
And knowing it's a perfect ride
But it stays on the other side
Still, big and green.

And you can watch it for days
And it will never break
Hey babe, they're mountain waves.

And seagulls turn to eagles
And cry a mountain song
And I dream that you could be here
'Cause sometimes I feel alone.

For MPD
Virginia Godwin
1980 July



DOWN IN THE LAUNDRY
Amy Riopel & Deb Briggs

Down in the valley
All covered with smog
We're off to do laundry
At 5 o'clock.

We load up the wagon
With 30 loads
And when we'll be done
Nobody knows

We fill up the washers
While people all stare
We take all the dryers
But we don't care.

We tell them we're married
To thirty men
They think we're disgusting
We think it's no sin.

We know all your secrets
Of what you all wear
Of your personal preference
Of underwear.

So next time you see us,
You need not be shy
We know much about you
And what you might hide.

You women around us,
Don't think we forgot
Your sexy black satins
And pink polka dots.

But speaking of satins
There's one pillowcase
I wonder what mice think
About Jerry's place!

While pointing the finger
There's one we forgot
What would Dewey's wife think
If she knew what we got?

So On Tuesday and Friday
Just give us your bag
And don't be surprised
If your underwear sags!!!

AQUATIC ECOLOGY 1980
Dr. Dewey Meyers

We went down to Knoxville, baby
It wuz my kind of trip
Went to the L & O Conference
The papers there, they made me flip
So we talked to the man---
And SPLIT!

Klaus cut us some threads, baby
We did crash the lake
Projects were a-cookin'
And we BEGAN TO FLAKE!

Back on the mount, baby
Flowed down Little Stony Creek
Searched all kinds of substrates
I began to freak
Found a mess of insects, yea
And squashed them with my feet.

Decapoda
Ephemeroptera
Coleoptera
Odonata
Trichoptera
Diptera
Hemiptera
Plecoptera

Bob Borden
Pam Morgan
Klaus Scott
Leslie Orvis
Nancy Keiser
David Rankin
Lynn Siekirsi
Mary Pat DiGiacobbe .

BRYOLOGY

(Dr. Susan Studlar)

MY OLD M.L.B.S. HOME

(With apologies to My Old Kentucky Home)

Oh the sun shines bright on My Old Kentucky Home
Tis summer, the young folks are gay.
The corn tops ripe and the meadows in the bloom
While the birds make music all the day.
The young folks roll on the little cabin floor,
All happy and merry and bright.
By and by hard times come a knockin' at my door,
Then My Old Kentucky Home, good night.

The moon shines bright over Riopel Pond
The memories, oh memories so fond.
The camp fire glows while the keg of beer flows
And the frogs make music all the night.
They hunt no more for the rattler and the skunk,
The herp class & aquatics are drunk.
The plant tax crew will try and plant press you
And we are gonna try and trample you.

Weep no more Mt. Lakers, Oh weep no more today
We will sing one song for the--
Mountain Lake Biological Station
For the Mountain Lake Biological Station on the hill.

Carol Brug
Tom Morton
Robbin Wilkerson
Laura Williams

HERPETOLOGY 1980
Dr. Don Merkle

(Tune: Home, Home on the Range)

In, into the swamp
Where the frogs and the toads go ker-plomp.
Whether in a bog, or under a log
The herp class always gets its frog.

But make no mistakes
We really know all our snakes
From scales keeled or smooth
We even know how they move
And how venom can flow down a groove

We've looked under every rock
Till at times it seemed like a croc
But we would never get slack
Until we got a red-back
Or a slimy or two in our pack.

In, into the swamp
Where the frogs and the toads go ker-plomp.
Whether a bog, or under a log
The herp class always gets its frog.

John Voss
Bruce Dopler
Marian Goode
Ellen Moomaw
Claude Stephens
Andrew Whisnant
(Tommy Angleberger)

PLANT TAXONOMY 1980
Dr. Robert Wyatt

PLANT TAXONOMY: A Musical in Three Acts

ACT I: The Field Trip

(Class members enter, marching, loaded with collecting paraphernalia (bags, vascula, shovels, machetes, lunches, other gear))

Randy: "Gee, Dr. Wyatt. Are you sure we're on the trail to the Cascades? We seem to have been by here before. That tree looks familiar.

Dr. Wyatt: It should. It was on your last lab practical. Hey, look! It's Oinkus discriminatus ssp. barbecuensis, the red-neck or Southern swinewort. They're rare--everyone get one.
(Group madly rips up vegetation)

Sue: Let's see. Sepals absent. Petals separate? No, united.
Leaflets--three, berries--white--

Eric: You idiot! That's not Oinkus! You've collected poison ivy!
(Ha, ha!, ha!)

Sue: Well, they're in the same family.

Bethia: They are not. If you ever got out of bed on time for breakfast, you'd know. And never shower in a thunderstorm.

Rody: This is a nice plant. Let's dissect it, y'all.

Dr. Wyatt: Better wait till we get back. It could be ssp. riopelensis. We'll have to check the throat for a scurfy, red beard.

Sue: My hands itch. And besides I'm hungry.

Regina: What's for lunch?

Eric: (Stuffing his face with cookies and gorp from home) Yeah, what's for lunch? I'm starved.

Randy: (looking dubiously into his sack)
Uh, I got eggshells, orange peels, coffee grounds, and--- hey, an apple core!

Regina: Same old lunch. Anybody want to trade an apple core for eggshells?

Rody: Hey, y'all. I got a fish, and fish scat, and ...a sock. I must have picked up the laundry!

Regina: Trade you an apple core for the sock.

Eric: Who doesn't want his jellyroll?

Sue: You can have mine. I'm itching too bad to eat.

Bethia: Put some juice from a jewelweed on it. And never shower
in a thunderstorm.

Sue: When are we ever going to get to the Cascades?

Song: At the Cascades
(Tune: Clementine)

At the Cascades, up from Pembroke, excavating for a root,
Went collecting, and dissecting, Bio 5 - 7 - 2.

Refrain:

Oh my classmates, oh my classmates, oh my classmates, you
damn fools,

Thou art lost and gone forever, down the Cascades, you damn fools.

Bright they were, a pack of dunces, but more foolish they by far
They went swimming, skinny-dipping, and lost track of where they
"whar". (Refrain)

Soon the ranger spied their fannies, blue from water cold as snow
"Down" he shouted, they re-routed, plunging to the pool below.
(Refrain)

How I missed them how I missed them how I missed my dear
classmates.

Till I looked at the class roster and realized an "A" I'd make
(Refrain)

ACT II: In the Lab

(Class members are seated with dissecting scopes, keying out
plants between chugs of wine)

Regina: This wine sure makes the keying go more smoothly.

Sue: Randy, let me have just one more swig. Please. Pretty, please!

Randy: One more sip and you're gone for the night. Ask Bethia if you
can have more.

Bethia: If you keyed as much as you drink, you'd be done with your
collection by now. If you're not sleeping, you're drinking.
Or showering in a thunderstorm.

Sue: Eric, let me have just one more swig. Please. Pretty, please.

Rody: Y'all better settle down. Yonder comes Dr. Wyatt. He won't
like us drinking wine.

Dr. Wyatt: Hello. How's it going?

Eric: (eating) Real well. I've already keyed out 30 species of Galium.

Dr. Wyatt: These all look alike to me.

Eric: Geez. All those hours of keying.

Dr. Wyatt: What's that you're working on, Sue?

Sue: I think it's some strange sedge. Leaflets --three, berries-- white.

Eric: Not again! You idiot!

Bethia: Watch your language, young man! Sue, just put some jewelweed on it.

Regina: Bethia, what are you pressing? It smells like the skunk we caught last night!

Bethia: It does not. Skunk cabbage does not smell.

Randy: Hey, I heard they caught a bigfoot in one of the traps the other night.

Regina: Naw, we just saw the tracks around the traps.

Eric: Say, Regina, what size shoe do you wear, anyway?

Randy: Dr. Wyatt, the book says this plant is supposed to taste like carrots. It's more like parsnips, if you ask me. This is Daucus carota isn't it?

Dr. Wyatt: Heavens, no! That's Conium maculatum!

Eric: Uh...what's that?

Bethia: Poison hemlock! Give him the juice from a jewel weed.

Song: Brave Botanists...
(Tune: Auld Lang Syne)

Brave botanists, they never brag
About their dangerous plants,
With stinging trichomes,
Vicious spines, and symbiotic ants.

But in zoology, you know,
They sing their creatures' praise,
Of ungulates with monstrous horns
And snakes with venomous ways.

Dr. Wyatt: Number two is this dandy little gem with aluminum flowers.
Some of the parts are missing. But that's okay...it isn't in
the key, anyway!

Eric: Uh. Is there any time limit on this practical?

Dr. Wyatt: No. Take all the time you want...It won't help.

Sue: No fair. Eric just reads every description until he finds one
that fits.

Bethia: Well you just compare the pictures. If it isn't pictured
you can't identify it!

Rody: Randy! Get that bag off your head! It isn't that bad. Come
on y'all, let's give it a try.

Randy: Let's all go take a shower in a thunderstorm!

Song: Wyatt's Little Chilluns
(Tune: Shortnin' Bread)

Pull up the orchids, tear up the roots
Take 'em back and count their tiny fruits
Here come the ranger pulling out the gun
Wyatt's little chilluns are on the run.

Wyatt's little chilluns love plant tax, plant tax
Wyatt's little chilluns see a plant and groan.
Wyatt's little chilluns love plant tax., plant tax,
Keyin' out plants till the cows come home.

Munch on the cherries, eat up the galls
Next we gonna go to Barney's Wall.
Went up to Barney's, looked o'er the edge
Now we gonna give to Sue a sedge.

Wyatt's little chilluns gone hikin', hikin',
Wyatt's little chilluns gone hikin' in a fog.
Wyatt's little chilluns gone hikin', hikin'
Wyatt's little chilluns gone to hike in a bog.

Went to Big Soft Sleep, got soaked to the bone
Wyatt's little chilluns began to moan.
Ran around in circles, tore up our packs,
We began to wonder if we'd ever get back.

Wyatt's little chilluns gonna drink wine, drink wine,
Wyatt's little chilluns gonna sleep well tonight.
Gonna drain that bottle till the wine's all gone,
Gonna guzzle that wine till the end of the song.

PTERIDOLOGY

Dr. Murray Evans

IN SEARCH OF "RUGGII"

Neither rain nor sleet nor busted shocks could keep the dedicated Mountain Lake Pteridology team from seeking out the elusive Osmunda X ruggii hybrid. At times the gruelling and strenuous 30-minute journey into the wilds of Craig County, VA along battered country roads (with Dr. Murray Evans at the wheel!!) proved almost unbearable. But the team pushed forward, undaunted. Once within close proximity of the locality, the group set out on a cross-country search, unaware of the torrential rain which pelted their bodies continuously. Through streambed after streambed, ravine after ravine, and gorge after gorge, they pursued the mysterious "ruggii" to no avail. Then, at long last, they arrived at the head of a lush ravine where a veritable "mini-paradise" of Osmunda regalis, O. claytoniana, O. cinnamomea, and O. X ruggii rested. (AND TO THINK!...THESE 4 SPECIES ALSO CAN BE FOUND IN BURN'S GARDEN HERE AT THE MT. LAKE STATION!...oh, well!)

This site represents only the second locality (natural) for the "ruggii" hybrid, since the original one found in 1940. It is also interesting to note that in 1978 the age of the hybrid in Craig County was estimated, based upon a rhizomatal growth of 0.7 cm/year, to be 1100 years old! In addition, only 60 plants of the hybrid were found in 1978.

Evidence which favors O. claytoniana (Interrupted fern) over O. cinnamomea (Cinnamon fern) as the most probable parent includes similarities in the overall habit, location of sporangia on the fronds, morphology of leaf segments, venation of pinnules, presence of an external endodermis, lack of thick-walled fibers in the inner cortex of the rhizome, and most significantly correlations of chromatographic patterns between O. claytoniana and O. ruggii. In addition, similarities between O. regalis and the hybrid in all of the above-mentioned characteristics confirm this species as the other parent.

Osmunda X ruggii is a diploid hybrid having the same number of chromosomes (44) as its parents. However, the chromosomes exist as 44 singles, rather than 22 pairs, and are therefore unable to carry out meiosis successfully.

Eunice Cronin
Debbie Kahn
Joan Macdonell
Jil Swearingen

QUANTITATIVE FIELD BIOLOGY

Dr. Diana Lieberman

THE TWELVE DAYS OF MOUNTAIN LAKE

On the first day at Mt. Lake, Mary Ann said to me--
"You sleep in the laundry."

On the second day at Mt. Lake, I played volleyball
Boy, is Dr. Evans tall.

On the third day at Mt. Lake, I found to my dismay,
Mice running across the foyer.

On the fourth day at Mt. Lake, my tan began to fade.
I spend all my time in the shade.

On the fifth day at Mt. Lake, I cried in my beer,
Five weeks here!!!

On the sixth day at Mt. Lake, Wayne said to me--
"The textbooks here aren't free."

On the seventh day at Mt. Lake, we went to Spruce Bog
It was raining cats and dogs.

On the eighth day at Mt. Lake, a skunk walked through
my door,
I almost passed out on the floor.

On the ninth day at Mt. Lake, a skunk passed across the
lawn,
Followed by Regina and John.

On the tenth day at Mt. Lake, Steve shaved off his beard,
And boy did he look weird.

On the eleventh day at Mt. Lake, we had something new--
Bowls of chicken stew...and chicken pot pie and barbequed
chicken and finger-lickin' chicken and chicken cupcakes
too!

On the twelfth day at Mt. Lake, I became quite fond
Of throwing the Riopels in the pond.

Cheryl Abernathy
Hattie Braun
Deb Briggs
Pat Franklin
Michelle Grenier

Akke Hulburt
Mary Palmer
Jim Pease
Debbie Rib
Jackie Ross

WILDLIFE ECOLOGY 1980
Dr. Jerry (Alpha) Wolff

(Tune: The Leader of the Pack)

He puts his traps all over the ground--ground, ground
Where there are mammals, he'll track them down--down, down
We saw him in the Wolff Mobile.
He had his car up on two wheels.
We knew we'd found him, The Leader of the Pack.

We used to hang out in the lab--drab, drab
Dissecting rodents was a real stab--stab, stab
Our trusty fridge was always near
Keeping cool dead mice and beer
We know who drank it, The Leader of the Pack.

We sit all day and listen to lecture--drat, drat
We learn to count deer scat in a hectare--scat, scat
We go and count out piles of twenty
He always know where there is plenty.
He knows his shit, The Leader of the Pack.

You know the Alpha Wolff got the knack
Yeah baby--four girls make the Wolff Pack.
He keeps them busy rain or shine.
Then pays them off with popcorn and wine
They'll do it all for, The Leader of the Pack.

We had to study for our exam--cram, cram
We walked out saying, "Who gives a damn?"--damn, damn
We're into research hot and heavy
I think we'll go wreck Jerry's Chevy
He'll never catch us, The Leader of the Pack.

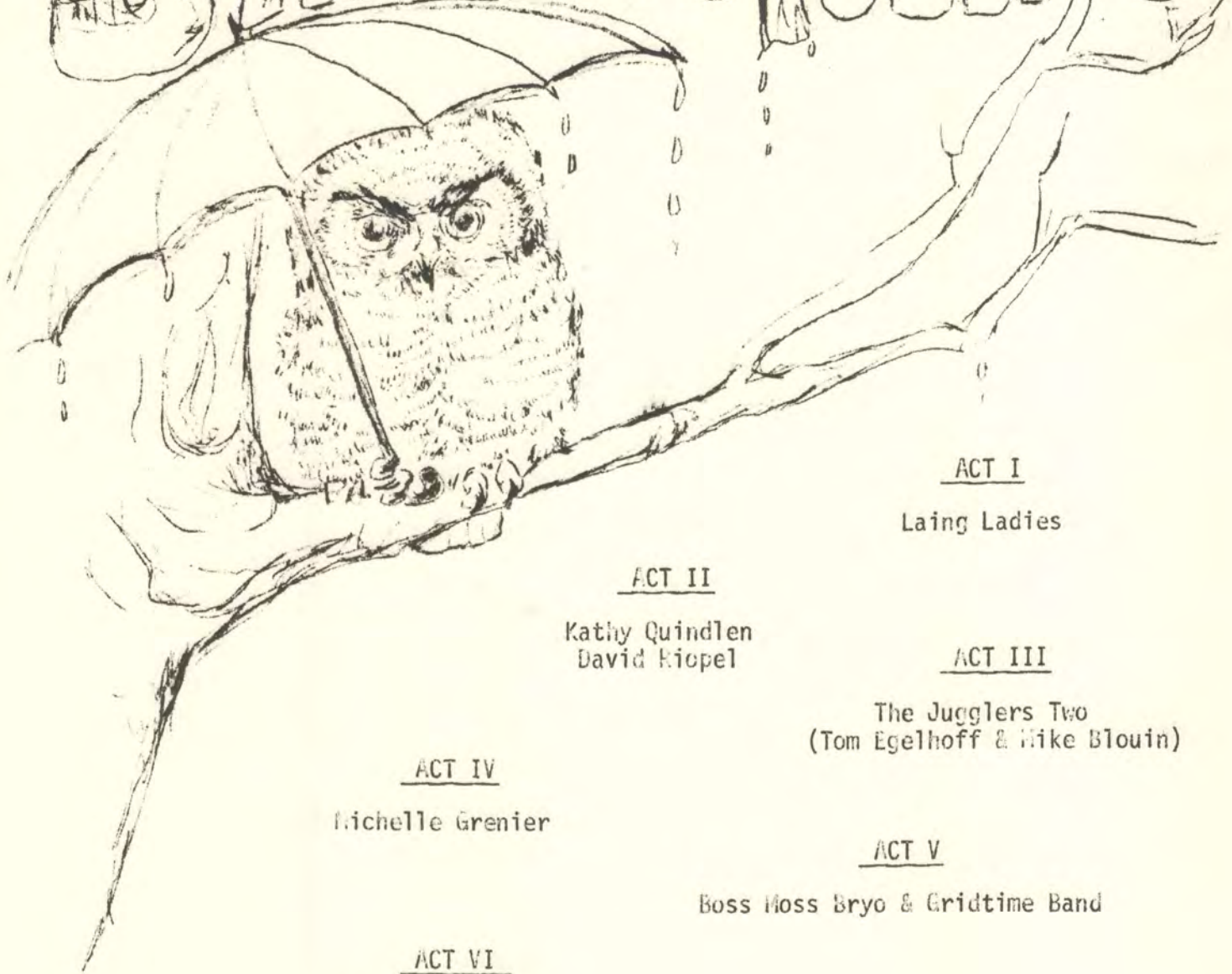
Sara Reed
Anne Hoover
Bob Sheehan
Ken Blodgett
Ann Randolph
Bonny Dodson
Kendell Berry
Paul Erickson
Steve Hulburt
Jan Mooneyham
Kathy Quindlen
Becky Bemisderfer



WHAT DO YOU MEAN MANICULATUS AREN'T ARBOREAL?

1980

SALT POND FOLLIES



ACT I

Laing Ladies

ACT II

Kathy Quindlen
David Riopel

ACT III

The Jugglers Two
(Tom Egelhoff & Mike Blouin)

ACT IV

Michelle Grenier

ACT V

Boss Moss Bryo & Gridtime Band

ACT VI

Virginia Godwin
Debbie Briggs

ACT VII

Robert Wyatt Chorale

I've Been Workin' on the Railroad
O Tannenbaum
Auld Lang Syne
There is a Tavern in the Town
(Encore)

NAME THE FIELD CONTEST

With the opening softball game coming up on July 4th, it was felt that an appropriate name be given to the field. Following are the suggestions? submitted. Names of the submitter have been omitted to preserve what dignity some had left.

Independence Field

Hyla Field

Peeper Field

Crater Field

Parker Field

Mountain Lake Field

The Orchestra Pit

Hylidae Field

The Lets Throw the Director in
the Pond Field

The Dugout

Bullfrog Field

Salt Pond Ball Park

Riopel Field

Yankee Stadium

The Lovely Field

The Lets Throw Claude in the
Pond Field

Peoples Field

Kentucky Coliseum

W.C. Field

Totie Field

Sally Field

Magnetic Field

Electrical Field

Force Field

Corn Field

Wheat Field

Butterfield

Wrigley Field

Neil Diamond

Burt Park

Minnieball Field

Fernway Park

Bunting Field

Wolffpack Park

Hulburt Field

Treeland Park

Disco Diamond

Flanders Field

Poaceae Field

Feeled Field

B.S. Field (e.g. Biological
Station)

Critter Field

Pondside Park

Sesquettennial Field

Stony Meadow Field

Wiggler Field

Don't Park

Plumbertanna Field

Mountain Field

Mountain Meadow Field

Deer Park

Centre Field

Salt Pond Olympic Complex

The Big Scrape

Quillwort Park

Outfield

Rana Arena

Rally Alley

*Froggy Bottom

Roughcut Diamond

Toady Field

*THE WINNER

ENTOMOLOGY

Dr. George Byers

Help, I need some beetles
Help, not just any beetles
Help, I need some bugs now!

When I was younger, just five short weeks ago
I never thought that insects could get me quite
so low.
But now those days are gone and I'm not so self-
assured,
I run around, I turn around but all the bugs
are gone.

Help me if you can, I'm feeling down
Help me catch those bugs a buzzin' 'round.
I can't get my collection off the ground.
Won't you please, please help me, help me!

By now I have just 50 families
Won't you help with the other 50, please!
Now there are only three days left to go
As you can see progress is so slow.

Chorus

* * * * *

Hey there, Georgy boy
Swinging down the path so fancy free
Nobody you meet would ever see the bugs that
you see.
I'm telling you!

Hey there, Georgy boy.
Wacking at the bushes all day long,
Why is it that all the bugs we get we classify
wrong?

We're always microscoping and straining Sylvatica
pond.
It's time for us to recognize some.
Oh when will we?!

Hey there, Georgy boy.
Is it any different in Kansas?
Do all your students still enjoy the lectures
on frass?

I'm asking you:
Hey there, Georgy boy.
What about the ending off your class
Do you think that there is a possibility we
will all pass?

Kendell Berry
Muir Bradburn
Bonny Dodson
Akke Hulburt
Joan MacDonell
Jan Mooneyham

Kendell Berry
Muir Bradburn
Bonny Dodson
Akke Hulburt
Joan Macdonnell
Jan Mooneyham
GWB

MAMMALOGY

Dr. Ron Barry

We welcome you to Mammalogy,
To Mammalogy, to Mammalogy,
And in the name of Mammalogy
We wish to welcome you to Barryland.

We welcome you to Mammalogy,
To Mammalogy, to Mammalogy,
And if you want to be a mammalogist--
YOU'RE CRAZY!

* * * * *

Somewhere after the trapline
Skies are blue,
There's a place that I've heard of
With nothing else to do.

Yes, somewhere after the trapline
Rest will come
But with Barry as master
What else can we do.
But wait and watch and hope and pray
That after all this someday
We'll sleep too.

And we'll forget about those skins
And pulling out the tongues from skulls
That make us puke!

Somewhere after the trapline
Skies are blue
There's a place that I've heard of
With nothing else to do.

We're off to see the dump
The wonderful, wonderful dump.
We hear it is the dump of a dump
Because of all the critters it has
If ever, oh ever, a dump there was
The Mt. Lake dump is it because, because...
Because of all the critters it has.

We went to see the dump
The smelly, smelly dump
We were not pleased up to our knees
In all that yucky junk
So if ever, oh ever, a dump there was
The Mt. Lake dump's NOT it because, because...
Because of all the smelly, yucky, rotten,
Slimy junk there was.

We're off to see the dump
The Wonderful, wonderful dump!

* * * * *

Ding, dong, Dr. Barry's gone
Which old Ron?, the wicked Ron
Ding, dong the wicked Ron is gone.
Sing it high and sing it low
As off with all our grades we go
Ding dong the wicked Ron is gone.

You know, you know, you know
We really love him so
But he's just got to go
So ding dong the wicked Ron is...

Ding, dong, Dr. Barry's gone
Which old Ron?, the wicked Ron
Ding dong the wicked Ron is gone.

Laura Baird
Becky Bemisderfer
Marina Botje
Deb Briggs
Pat Franklin
Steve Gardner
Anne Hoover
Sue Van Orden

PHYCOLOGY

Dr. Dorothy Chappell

(Tune: Cabaret)

No use studying vascular plants
Come where the algae bloom,
Life is Phycology, my friend,
Come to Phycology.

Put down plant presses, live traps, and bug nets,
Come where the water is green,
Life is Phycology, my friend,
Come to Phycology.

Come sample the pools,
Come scrape the rocks,
Come tow the net,
Come make the slides...right this way,
Your microscope is waiting....

* * * * *

On top of Ole Baldy
All covered with pools
We found Stephanosphaera
We're nobody's fools.

It has two flagella
And swims all around
On top of Old Baldy
It only is found.

It is a sphere
Of eight lovely cells,
In spite of a collapsing spindle
It does very well.

So come all Mountain Lakers
Let's not get fat,
If you hike to Ole Baldy
Your heart will pitty-pat!

Lori Cohn
Lillian Miller
Jim Pease

MT. LAKE BIOLOGICAL STATION

SIGH-ENTIFIC SEMINAR # 401

Good evening, I realize that not all of you attended Dr. Thornhill's seminar in July 1980 on mating behavior and scorpionflies. For those who missed this seminar, here is a brief recapitulation of his talk. Male scorpionflies prior to mating search for a prey item of a particular size and quality. Having secured this prey item they then feed briefly on the prey and release pheromone to attract females. The arriving females then evaluate the item and if the item proves to be of sufficient quality and quantity they will initiate mating behavior. There is strong selection for males to choose an acceptable prey item and there is strong competition between females for a male with an acceptable prey item.

Are there any questions regarding the mating behavior of the scorpionflies?

Since Dr. Thornhill's seminar I have noticed similar behavior patterns in the species Homo sapiens. With slight variations the behavior is nearly identical. (Could I have the first slide, please).

For instance, males can be seen here searching for a prey item, which must be of sufficient quality and at least 12 oz. in quantity. This is a rich habitat for prey items and I observed these three capable males searching for a suitable prey item.

Resources are patchily distributed. Here is an ideal site of high concentration of prey items.

Males rapidly converge in this area and engage in intra-sexual competition for a suitable site.

Predators have been observed to exhibit prey item selectivity. In this case because of its aposomatic coloration and poor quality, the item is rejected.

Here we see a male with a quality prey item. Having secured acceptable prey items the males feed briefly on the items and make their way to the display site. This occurs typically at dusk near bodies of water. There they open the prey item and release pheromones to attract females.

Here we see a male that has selected a prey item of insufficient quality and minimal size. He has compounded his problems by selecting a suboptimal site. The technical term for this phenotype is NJØRD, taken from the landmark paper by the Swedish entomologist Klaus Cade (1927).

This slide is slightly out of focus but as you can see a NJØRD meets a successful male. A fine example of contest competitions with no aggression. The males each evaluate their prey size and that of the other males. The males having the smaller prey then aggregate and slink off.

In their retreat the NJØRDS display a clumping distribution.

Unfit,

Dejected,

Unable to mate, they occupy a marginal refuge habitat.

Here is a close up of an established fit male in a well-established niche. Notice the shades, appearance, and casual demeanor. This male will then open his prey item to attract females into his vicinity. Females are receptive to his scent up to 200 meters away.

Here are several examples of the female behavior response.

The females' then quickly congregate and rapidly advance to the source of the pheromone.

The females chemoreceptors enable them to quickly and accurately locate the pheromone source.

Natural selection acts against those females which are weak and slow.

Here we see females of relatively equal fitness...

The females then converge on the male and his prey item. The exact location of the male in this photograph is quite obscure; here is a shot from a different angle that shows him clearer.

Competition for the prey item also occurs in the female. Notice here, their non-lethal aggression. Typical behavior involves biting, scratching and hair-pulling.

One female emerges victorious, having vanquished the others. She is now entitled to the prey item.

The male invites the female to his established nuptial den.

The pair then assume cryptic coloration which is extremely difficult to photograph.

Here is a close-up of the same slide. This coloration is an adaptation to prevent predation by birds, frogs and directors with flashlights.

Reproduction constitutes a proportion greater cost for the male. Conjugation is relatively debilitating and exhausting.

Unlike the male, the female retains her vigor and the prey item.

Next week, we will investigate reproductive strategies of the NJORDS with the regard to the losers of the female competition.

Any questions?

(Ed. note: Dr. Randy Shannon's lecture is hilarious with or without the slides which accompanied it. For those who were fortunate enough to be present, you will remember; for those who were not in attendance, you will have to conjure up what Randy and his colleagues (Klaus Scott, Amy Riopel, David Riopel, Muir Bradburn, Nancy Riopel, Jessie Tuttle, and Todd Cochran-the totally fit male!) could concoct!

by Professor, Dr. Joseph Travis

Thank you Steve. It's very nice to be here at Mountain Lake, nice place. The other day I was hanging around near the kitchen with Steve, and we were hearing some rock music from the kitchen. You know, I like that kind of music. But Steve said to me, "How can you like that stuff? It all sounds alike to me." Well you know, Steve, his last name is Hulburt, you see, Anglo, and those people have no ear for music at all. I told him that with a little work, you could learn to tell them apart, and to that end, I wrote this key to rock stars.

Do all of you know how to use a dichotomous key? This is a series of paired statements from which you choose one or another, and each choice leads you to another pair, and you go on until you get to the name you need. How these paired statements, the second one is supposed to be the opposite of the first, and so about 8 out 10 times you can make an unambiguous choice; 2 of 10 times you have no idea, so you see a key is fundamentally a statistical device. You just keep guessing until you come to one pair you know for sure, and after a period of days you can "key out" your rock star, going forward and backward through the key.

Before I tell you about the key, let me say that there is no substitute for having the rock star in the hand. However, you usually cannot do this. You have to use what characters you can, like "Rock star dead or apparently so" versus "rock star clearly alive". See, don't be fooled by Gregg Allman - he's in "dead or apparently so" because you know, you look at him, who can tell? You can't look for dilated pupils, his are always dilated. And you can tell whether or not a rock star is dead even if you only hear the voice, like you know, Janis Joplin: anyone who sings like that back then must be dead by now. Another character: "heard at undergraduate parties" versus "Never heard at undergraduate parties". You can't use graduate student parties because a graduate student only owns 2 records, both "greatest hits of somebody". Usually they have "Rolling Stones Greatest Hits" and "Worst of Little Richard", though some have "Worst of Jerry Lee Lewis" instead of Little Richard.

Like biology, there are fossil rock stars, too. For example, one group is known from only a single specimen found in old vinyl deposits: the Iron Butterfly. Of course, there are many gaps in the fossil record, and since rock stars have a very short lifetime before extinction, we're probably missing dozens of extinct forms.

And you see, with a little work you can learn to key out all kinds of things. For example, I just completed a "Key to Graduate Student Food". True, really - you can do this. First entry is "food has eyes or a place for an eye" versus "food has no eyes or vestiges of eyes" - if it has eyes, it's called "Meat". Then let's say you decide you have a "meat" - you come to "Meat still warm" versus "Meat rapidly cooling or cold". If it's still warm you go to "Meat found in center of road" versus "Meat found along side of road". You can go on from there, and you can key out squirrel, possum, lizard, all kinds of things graduate students will eat, even "vegetables" such as acorns, dandelion leaves, and discarded Big Macs.

Well, it was wonderful to talk with you, maybe we do it again soon.
Arrividerci.

Anyday Summer 1980

Dear Sir:

This letter is to stamps? Yes, we have stamps, how many would you like? Okay, but that goes into this pot--oh darn, I don't have the correct change, wait, we have it, it's just not in this box. Next? You want to add 2 hours? Well, you'll have to fill out this form--the number for that course is 81047. Make your check payable to the University of Virginia.

It has been no, he's gone to town, may I help you? Well, if you can wait a minute I'll go open the machine and get one for you. Did it take your money? Let me finish with her and I can do it for you. Watch out for Kelly; she's always in the traffic lane. I'll be right back.

Now, who's next? How many people will there be? Do they want to eat here? The meals are \$2, \$3, and \$5. Alright I'll mark you down. Try to let me know what meals they want.

As mentioned in our letter of teeshirts? Yes, we have orange and blue. Now the medium runs really large. Sure you can try it on. Is that the one you want? Okay, I'll mark it down. Yes, you can add on some post cards.

Hello, Mt. Lake Biological Station. I'm sorry he's not here, may I take a message? Fine, I'll post it on the board. Good bye. I'll be right back, just let me put this on the board. Did you say you wanted to drop your 2 hr. research? Yes, you can do that but you'll have to fill out this form. The number for that course is 81047. No, your money cannot be refunded. Well, if you want to think about it....

Hello, may I help you? Are you staying at the Hotel? Here's a map of the station trails. A short one? Well, one I like starts right behind the lab building. The station's been here for 50 years. No, we're part of the Univ. of Va. We're only open during the summer. Sure, here's our brochure. Have a nice walk, oh, I better caution you, it's been pretty dry here and we have seen some rattlesnakes. Well, they're kind of brown with markings but sometimes they're very black....

I though I gave you a stapler. Go ahead and borrow this one but be sure you return it. No, I'm all out of file folders. No, no one has turned in any keys. Do you have any idea where you lost them?

The invoice was mailed, yes, Tuesday is alcohol day. Do you have a container? Acetone? Yes, it should be on the shelves just as you go in the stockroom--oh, well then, if I was going to look for it I'd look in the basement. What! you signed it out for this morning and the keys aren't there? Let me check. No, I can't find the keys to White Pine Lodge either, let me think, who asked for them last? Ask Blair.

In closing, oh my, what is that smell? Uh-oh, the transparency isn't coming out of the machine. I'll have to call Xerox. Oh, by the way, can you pay your bill today? I'm trying to close the books.

Sincerely,

And now, time out for this brief inspirational message: Where will you be spending next summer? Will you be in the sweltering lowlands wondering about your friends at Mt. Lake or will you be high in the Appalachians staring in awe as Director J. J. Murray, Jr. climbs up an outside corner of the lab or shows us slides of his trip to Tahiti? Where else could you find the combination of cool temperatures, beautiful scenery, rustic cottages nestled in a lovely woodland setting and featuring indoor plumbing (sometimes, all over your indoors)?

And now let me leave you with this final word, "Remember Mt. Lake is its own best advertisement" or in the words of former caretaker, Farley Couch, "This here's a right nice place."

How far will a six-pack go?

Answer: About a mile and a half! (right Dewey?)

triangularis Willd. in an Ohio salt pan. Amer. Midl. Nat. 100: 1-14.
 Ungar, I.A. 1978. Halophyte seed germination. Botan. Rev. 44: 233-264.

STATION NEWS

---Mountain Lake received an undergraduate research award from the National Science Foundation. Ten stipends of \$1,000 each are available for this summer. The projects include:

Aquatic Ecology:	Relationships of biota to pond chemistry. Mahlon G. Kelly, University of Virginia
Ecology:	Plant-insect interactions. David E. McCauley, University of Virginia
Insect behavior:	Courting and insect relationships. Luther P. Brown, George Mason University
Mammalogy:	Reproductive biology of small mammals in Southern Appalachian Mountains. Jerry O. Wolff, University of Virginia
Plant physiology:	Host-parasite relationships in parasitic angiosperms. James L. Riopel, University of Virginia

These are studies that we can anticipate. There will undoubtedly be other projects, working with faculty members who will be at Mt. Lake all summer, and new post doctoral investigations. The students will spend 10 weeks working with a senior investigator and prepare a written report at the conclusion of the project. Room and board will cost \$540 for 10 weeks which is the only charge for participation. Course credit is optional but available to those who desire it. The deadline for applications is April 1, 1980.

---This summer the Station will establish permanent study sites for long term monitoring of plant and animal populations. The small mammal census has a head start of 40 years or more because of the foresight and perseverance of Charles Handley, Jr. at the Smithsonian. Dr. Handley will soon be able to prepare a report based on 50 years of collections at Mt. Lake. In 1980 the Station is in its fifty-first session. When the Station celebrates its centennial year many more reports will be ready. This will be a very valuable long term study. The residents of this summer will be in on its beginning.

---Our white pine stand of 3000 trees continues to do well. This will be a useful habitat in a few years. A permanent meadow near the lab would also be desirable. Dick Purser from White Pine Lodge has been helping us locate a site that could be used. The possibilities are to clear another area or make an arrangement with the Hotel for permanent access to the Fox Farm meadow.

---The Walton Seminar Series begins this summer. This series, made possible by the generous support of Ruth and Miles Horton, is in honor of Miss Peggy and Miss Lucile Walton, long time Mt. Lakers. The series will permit Mt. Lake to invite nationally prominent biologists to the Station for seminars on their work. Proceedings will be bound for permanent record in our library and when appropriate, the talks will be published by the ASB quarterly. I am very grateful to the Hortons for help in this. We hope to have three seminars in 1980. Professor Eugene Odum who taught at Mt. Lake many years ago will begin this series.

---The University of Virginia will continue to provide research fellowships for senior investigators in 1980. Recipients in 1979 were:

David E. McCauley, University of Virginia
 Richard B. Primack, Boston University
 Leslie A. Real, North Carolina State University

These individuals made very significant contributions to the Station and we are happy to continue these awards this summer. Deadline for post doctoral applications is April 1, 1980.

- Student Scholarships. There will be 23 work scholarships this summer. Students will serve in the dining hall or help clean the lab. Room and board will be provided. Several Virginia university biology departments will nominate their own selection for a scholarship. Scholarships are established at George Mason, James Madison, Radford, VCU and William and Mary.
- A computer terminal will be available at Mt. Lake this summer. This will have access to the computer centers at both VPI and the University of Virginia. The terminal will be available for both research and teaching.
- Investigations at Mt. Lake for 1980

Luther P. Brown - Courting and insect relationships.
 David E. McCauley - Plant-insect interactions.
 Susan Studlar - Trampling stress on trail species of bryophytes.
 Randy Thornhill - Insect reproductive behavior.
 C.R. Bell - Research pollination and floral biology.
 Mahlon Kelly - Experimental manipulation of an extremely oligotrophic pond.
 Jerry Wolff - Reproductive biology of small mammals in southern Appalachian Mountains.
 Diana and Milton Lieberman - Forest ecology.

ODDS AND ENDS

Lots of seventy-niners will be back again. Included are: Lynn Broaddus, Akke Veenstra and soon-to-be-husband, Steve, Buffy and Ken Berry, John Steffens, Dan Nickrent, Evelyn Wilkinson, Steve Gardner, Tom Egelhoff, Merrill Varn, George Byers, C.R. Bell (periodic visits), Luther Brown, Mahlon Kelly and Dave McCauley just to name a few.

Tommy Angleberger is returning to continue entomology studies. His parents are coming also.

Les Real has accepted an appointment as coordinator for the O.T.S. program this summer.

Richard Primack is off on a fellowship to look at tropical botany. Richard remains a loyal Mt. Laker and serves as our New England connection.

Jim Murray recently completed snail collections in the Society Islands and other groups in the South Pacific. He has continued on for collaborative work with Dr. Mike Johnson in Perth, Australia. Jim will be back in mid-summer.

Susan Moyle Studlar continues to show her versatility in biology. The Studlars are expecting a new member to their family in September. They will be in residence most of the summer.

We are looking forward to many excellent meals again prepared by the VPI Food Services.

As you may know Dave Johnston is Program Director for Ecology with NSF. Dave will visit the Station next summer to discuss NSF support for ecology studies.

George Byers has been ill this winter, but I'm happy to report that he is feeling better.

We have Mt. Lake tee shirts for all sizes and shapes this summer! A modest profit will be made by us, say \$20-30/shirt. If you recruit a new Mt. Laker I'll give you one. This one time offer is not accumulative and is for a limited time only.

In the continuing philosophy of Sheriff Hite that "if you can burn it you can use it" he has plenty of wet 10" chunks of firewood prepared. Come help us try to burn it!

Cheers.

TO PROSPECTIVE STUDENTS:

Perhaps the most important message should be to those who have not been to Mt. Lake. I have saved that until last.

First a few points of clarification:

1. The normal course load is 6 credit hours. Thus, you can take both a 4 hour course and also participate in a 2 hour research course. The 4 hour course usually meets 3 - 4 days each week at the discretion of the instructor. Classes combining lectures and field work run from 9-12 and 2-5 and Saturday morning. The laboratory is open all the time.
2. Many students have expressed interest in Diana Lieberman's computer course. This is a 2 hour course held two evenings per week making it available to anyone taking another course during the day. If taken both terms, one can receive 4 hours credit in computer science.
3. The NSF URP supports students for 10 weeks to work with a senior investigator on a research project. Room and board for 10 weeks of \$540 will be charged against the \$1000 stipend. Students cannot work or take other courses in this program. To apply send a copy of your transcript, two letters of recommendation and a statement of how participation will further your educational goals. The deadline for applications is April 1, 1980.
4. Mt. Lake is an accredited institution and part of the University of Virginia Summer School. In nearly all cases credit can be transferred to the home institution, but this is determined by your college, not the University of Virginia. Courses can be taken for graduate or undergraduate credit. If you have other questions, write or call Mrs. Marilyn Ladd, Monday through Friday, 9:00 a.m. - 3:00 p.m. at (804) 924-3151.

I hope to see you at the Station. You will find the experience very worthwhile. Indeed, for many it has proved to be unique to their college educational experiences. The faculty, their families and the students share for 10 weeks a common interest and excitement in field biology. The result is that learning is not just class time but goes on at meal discussions, trail walks, seminars, campfires and a myriad of other activities. To all of that, I have to say there are lots of summer programs but Mt. Lake comes to be a very special place for those who have been there. We have had many inquiries for 1980, at last count over 500. If you are interested, I urge you to apply soon.