# MOUNTAIN LAKE 

## ECHOES



## Volume <br> 28 <br> Summer <br> '65

## MOUNTAIN LAKE ECHOES

1955

Editor: Mrs. William A. Wells Cover: Mr. William A. Wells<br>Administrative Staff:<br>Director: Dr. James L. Riopel Business Manager: Mr. Malcolm Levin Secretary: Mrs. Malcolm Levin Dieticians: Miss Edith Rowland Miss Irene Rowland Librarian: Mrs. William A. Wells

IN MEMORIUM

James Laing

## A MESSAGE FROM THE DIRECTOR

## Dear Mountain Lakers:

My, but the time does fly! Here we are almost to Christmas again and it seems like only yesterday that Bill Wells stole the clapper from the dining hall bell and the other Bell bought out the local supply of watermelons and rum. In a way I suppose it is good the year is rushing by -it won't be long before we can start it up all over again.

Jim Murray will be our Director next summer and he already has most of the courses planned. So far the 1966 schedule looks like this:

First Term: (June 17 to July 21)

| Pteridology | Dr. A. Murray Evans | U. of Tennessee |
| :--- | :--- | :--- |
| Ecological Genetics | $\mathrm{Dr} \cdot \mathrm{D}$. A. West | V.P.I. |
| Herpetology | Dr. H.G.M. Jopson | Bridgewater College |

Second Term: (July 22 to August 25)
Systematics of Seed Mr. Carl S. Keener N. C. State Univ. Plants
Mammalogy Dr. C. C. Handley, Jr. Smithsonian Inst.

## Tentative:

Animal Behavior
Plant Ecology
Algology
Good news on the lake! The final yard of dirt was moved onto the dam about three weeks ago and it will be filling up over the winter. Surface area will be about three acres with a maximum depth of $9 \frac{1}{2}$ feet. The Station owes a great deal of thanks to Mr. L. L. Huffman, the general contractor for the project, and to Mr. J. C. Mustard of the local office of soil conservation. Mr. Mustard tripped up to the Station almost every day from Pearisburg to supervise the construction. The dam is clay in composition and the bottom of the lake has been completely cleaned of top soil. In removing the soil, dynamite was used and this opened up several good seams of water. The engineers tell me that no additional water from the spring or Hunter's Branch will be required to keep the lake full.

Carlton Hite has been busy since the Station closed removing the slabs from the cottages and replacing them with new strips. All the cottages will receive a coat of wood preservative in the spring. Later on Carlton will be cutting our summer supply of wood. My Farmer's Almanac says next summer will be cold so we are planning to stock in an extra amount.

It is beginning to look like Lewis Laboratory will be renovated this winter after all. Bids will soon be opened and our only worry is that we won't have money enough -doesn't that sound familiar! If all goes well most of the research labs will be refurnished and the Rose Room area upstairs will become part of a research complex that will include dishwashing facilities, a prep room, a photographic suite and so on. A seminar room is planned in front of the fireplace in the library.

Although there still remain a few reports to make, this letter kind of signifies for me the official close of Mountain Lake, 1965. I want all of you to know how much the Riopels (including Charlie) enjoyed our part at Mountain Lake. Some of you may not find it possible to return to the Station, but all of you should know that you will be welcome at any time, even if it is just for a brief "Hello".

Merry Christmas, and to all of you my very best wishes for a happy and successful year ahead.

J. L. Riopel

A BRIEF SUMMARY OF THE HUMAN HISTORY OF MOUNTAIN LAKE GILES COUNTY, VIRGINIA

Compiled by
Frederick C. Marland

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"The interest that attaches to the lake is the mystery of its source." (E. A. Pollard, 1871)
"That's a puzzle (referring to the origin and history of the lake) and I certainly haven't got time to straighten that out for you, because I don't know the answer myself.' (Talk given by Dr. Ivey F. Lewis, June 20, 1957)
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May 10, 1751 Lake discovered by Christopher Gist; corroboration of Gist's account can be made by his description and local geography. Lake level essentially as it is today or slightly higher.

1750's The Lybrook family settled New River Valley where Pembroke is now (W. B. Snidow).

1768 "The Snidow family came to the New River Valley in which year Colonel Christian Snidow was eight years old, and he probably saw the lake a few years thereafter." (W. B. Snidow)

1770 Lake present, perhaps down somewhat. Samuel Kercheval in a conversation (1836) with Col. Snidow and John Lybrook relates that both men stated that the lake existed when the country was first discovered. Col. Snidow particularly, stated that he could recollect it upwards of sixty years, and that it had not increased in length within that period.

Aug. 7, 1774 The Lybrook and Snidow families suffered an Indian attack, several members of each family being killed and others taken prisoner. (W. B. Snidow)

1779 Lake restricted to more northerly end, probably small pond. Large spring raised at head (S end of lake) supplied lake with water. Since rise of lake in 1804, spring
has disappeared and it is now fed by numerous small springs around its head. (Col. Snidow in 1863 to Kercheval (1925)). It is possible to postulate that the lake was a pond for a much longer period than I've indicated. By reading Col. Christian Snidow's comments (Kercheval, 1925) differently and believing all of Johnston's (1906) comments literally (hard to do in the latter case) "it* could refer to pond confined to a small pool at the northern end. Presumably this could have been the case since the days when the early settlers first saw and used Salt Pond - perhaps in the late 1760's to the early $1770^{\prime} \mathrm{s}$. Two important keys to the matter are (1) How to interpret the word "pond" and (2) Did Col. Snidow recollect "it" as a lake or small pool of water?

1780's "To correct a delusion as to the recent formation of Mountain Lake, attention is called to early surveys (?) made in the $1780^{\prime}$ s, wherein lines are called for running through Salt Pond. These lines have been re-run in recent years and do actually cut through the lower end of the lake, showing that when these early surveys were made the lake was about its present proportions." (W. B. Snidow, 1948)

Lake 25 to 30 feet lower, commences to rise. (Col. Snidow in Kercheval, 1925)

Lake half full (Johnston, 1906)
Lake half full (Lewis, 1957)
Lake pictured on map by Herman Boye at $30^{\circ} 00$ long. $-37^{\circ} 23$ latitude.

1835 Lake full, present basin was full (W. B. Rogers) "Trees and shrubs that grew upon its margin seen sometimes standing erect at a considerable depth beneath the surface."

1836 Lake full, (Kercheval) In that same year that Kercheval visited the lake, he had conversations with Col. Snidow. "An elderly gentleman residing, in 1836, on New River, a few miles from it, (Col. Snidow) informed the author, Kercheval, that it had risen fully twenty-five since the year 1804."

Summer 1861

1863
May 20;1864
Winter 1865 or
1866
1869

August 1871

1879

1886

1888

1891

1901

If this increase in depth between the years 1804 and 1836 brought the lake to its full level, one can assume that the lake surface stood somewhere near the bottom of the slide rock dam (about $30^{\prime}$ below present level) for the 1804 back to the time the first settlers used Salt Pond -- perhaps in the 1760's or early 1770's. F.C.M.

Lake full, with submerged trees standing erect. (Wm. C. Fendleton, age 14, accompanied by Mr. Henley Chapman's two grandsons and two granddaughters).

Lake level full, inferred from Kercheval.
Lake level full, Major Barrett of Federal Command (Union), letter to Dr. Ivey Lewis.

Little pool of water not bigger than a room.
Salt Pond Mt. Resort purchased by General Herman and Mrs. (Cecilia) Haupt of Philadelphia. About 108,000 acres included lake and surroundings, valley, cascade of Little Stony. Later sold for $\$ 2.50$ /acre to several buyers, one of which was Moody.

Lake full, transparent water, trees still standing. (? Pollard)

Lake full. Mature hardwoods, top of which had been sawed off, some 1 foot in diameter. H. H. Chapman, Prof. at Yale.

Lake full. H. H. Chapman, of Yale, newts, bullfrogs, crayfish, sunfish.

Lake full. H. H. Chapman, of Yale, Black bass and trout were stocked.
? Lake full. Gordon T. Porterfield, Commonwealth Attorney for Giles Co., purchased 2500 acres from int. Lake Land Co. (Frank Woodman of Charleston, W. Va., Fresident) in 1891. Gordon T. Porterfield, being too busy as attorney gave care of hotel to son, T. Gilbert Porterfield.

Lake level down? Bedspring and mattress incident.

| 1902 | Lake was more than 15 feet lower than usual, at which time trees up to 18 inches in diameter were removed from lake basin (B. Ellison, letter dated $7 / 1 / 44$ to Dr . R. J. Holden). |
| :---: | :---: |
| 1904 | Lake down, trees removed by crew of T. Gilbert Porterfield (Dr. Ivey F. Lewis, 1957). |
| 1905 | Lake full. (?Dr. R. J. Holden, in R. V. Dietrich). |
| 1923 | Lake $\ddagger$ ull, chestnut still present in watershed of lake. Dr. W. A. Murrill. |
| 1934 | Lake full with deepest hole sounded at 1058 (Andrew L. Ingles). (Up 1 M or so from 1965 level as measured by top of concrete post on south end of boat dock.) |

## Symmetry

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Last night I lay by an ancient pond
    Where stately tree-ferns grow
Each fern frond one of a matching pair:
    One mirrored dark below.
On a hemlock root by a pleistocene pool
    I saw a girl at morn.
Her image was rippled by a sling shot stone:
    The killing tool was born.
We're coming back at midday now.
    Some gentler tools we'll bring
To search for other symmetries
    Beyond our little spring.
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Fairman Cumming Twin Springs 1965

First Term 1965
Classes

## Comparative Endocrinology

Endocrinology class at Mountain Lake in the summer of ' 65 was definitely something to write home about---though none of us did, either because we didn't have time (no union hours here), or else we had squeemish mothers. This course made up for all the drama and excitement we might have missed earlier in life. The fascination of important discoveries through research kept us galloping along at a pace which under normal circumstances would have required a slavedriver. Though our composite thesis has not yet been published in the Journal of International Endocrinological Society, it is safe to hint here at a few of our more revealing findings. To quote only one experiment, the Goiterprevention Assay in Chicks, we concluded that "noisy chicks die young," and that "goiterous chicks eat more thiourea." What a taxation to the memory! No, the actions of hormones were nothing compared to trying to remember which experiment of the five set for the day was yet to be started.

This class had character, or was made up of characters, whichever way one chose to look at it. Our venerable professor once commented that he had never taught such an enthusiastic class before. He did not mention other traits, such as intelligence, but he did stress the spirit of the group. We were eight, a number which, if not until the present will forever after be of scientific significance. There was Colonel Matheny, alias "the Colonel," who took the role of our primary hunter of wild beasts, and also provided us with endless quantities of coffee and tea from dawn till dawn. Judy Bryan became an avid expert on post-mortem anythingectomies. There was Anne Roche, without whom no master charts would have ever been compiled, no dishes would have been washed, and no tadpoles staged (T4-3 is dead. 3C is still alive though!) Bill Dail did everything, enjoyed everything and appreciated everything ("Golllleeeee.") Louise Alpert took out her maternal instincts on the animals and her frustrations on the calculator. (It's been dividing for fifteen minutes now, and it won't stop!") Jimmy Crowder, alias the Executioner had many talents. Besides wielding his golden rod to the doom of any rat, he could slice bologna on the freezing microtome, inject chickens ("funny how their eyes bug out when you squeeze them. . .") and lead the class in our theme song, "Rock of Ages". Dan Zimmerman, the office clerk with a pencil always ready behind one ear, was amazingly
active despite having only one hand - the other one was occupied full-time carrying a coke and a Winston. Paul Holman, our med. student working for a B.A. protected his excellent brain with ever-lengthening hair, supervised a private research project which was conducted nightly at 10:20, and cheered the rest of the class on ("Go, Jimmy!"). Eugenia Smith and liike Hyman, though not members of the class, were an essential part of the University of Michigan bloc, keeping a well-stocked larder of everything from masking tape to "passion-fruit juice". Cur love and respect for Eugenia were fully shown the day she came to lecture to us and found us standing at attention wearing skirts or coats and ties, as the case may be.

Having saved the best for last, we now come to memories of Dr. Frye. Without Dr. Frye our class would have been nothing, would have had no scientific drive ("That chicken looks distinctly taller than this one. Measure his legs it might prove to be a cretinous symptom.") Dr. Frye loved cretins, it might be added. He even led us to believe his five-year-old daughter was a nineteen-year-old cretin. To say nothing of what he told us about his wife. . . Dr. Frye had excellent laboratory demonstration techniques, whether he was thyroidectomizing tadpoles, adrenalectomizing rats, urinating toads, or teasing Louise. Cccasionally he did drop to a serious tone, however, and in conclusion we shall too long enough to mention the unanimous, full-hearted opinion of the class that Dr. Frye was one of the best professors any of us had ever had, and that the course proved to be one of the most interesting, as well as the happiest ever encountered.

## Entomology

Dr. George (more fun than science) Byers was our professor. He was, and is, great! The students were fairly gung-ho -- He kicked us out of the lab on the average of twice a week.

This class has many experiences to cherish. . . like the night we went to the big city of Pembroke to collect "bugs" at the street light. Cn this outing, we ate two bags of potato chips and drank two cartons of cokes, and caught a few bugs.

Then, of course, there was the morning our professor drove us down to the lake to look at the moon and relax. It was very relaxing!!: Larry Neff went swimming; Betty Hood lost her car keys, and I cried. Cur test was five hours later, and then we all cried.
"Sweet" Wilbur and Senator "Foghorn" CaVasey represented the "old-age" and "middle-age" group (in that order), while Ekaterina (Russia lost and we gained) Scvortzoff and Ron Hall composed the happy set.

And who could forget our floor shows? These spectaculars were led by Betty (lightfoot) Hood who immensely enjoyed running around on the walk, swinging on doors, and laughing.

But there is one thing that we will always remember: "If you can't pronounce bent, say geniculate."

## Mycology

Armed with fifteen dollar texts and rented microscopes, nine students set the academic world of mycology on fire. Those nine under the guidance of Dr. Charles E. Niiller, University of Maine, were: Lanier Brashear, Viper, Kentucky; Douglas Graham, Columbia, South Carolina; Tom Johnson, Bristol, Tennessee; Sandy McLaughlin, Brownsburg, Virginia; John Payne, Lone i Hountain, Tennessee; Bill Sloop, Crossnore, North Carolina; Charlotte Snyder, Washington, D. C.; Dot Spates, Leesburg, Virginia; and Malcolm Sprinkle, Bristol, Virginia.

We really got off to a tremendous start on our first field trip, the first day, the class lost its way to Twin Springs (Never did find the path!) Dr. hiller says it was all because he used his compass. Some claimed to have remained lost thereafter.

The water fungi were first brought to our attention and soon each of us was culturing, observing and drawing the sex life of Allomyces javanicus. Cccasionally there were shrieks of delight when "Hush-Hush" Charlotte and Dot found Saproleqnia discharging their biflagellate zoospores. John and Bill just frowned. Tom claims to have germinated a hemp seed which he used as a bait for aquatic Phycomyces and says his hemp plant is growing well. (Doesn't Heroin come from hemp?)

After the first exam and after the shock wave had settled, several members of the class were out stalking the deadly Amanita -- they knew the end had come. With a new tempo established, the class settled down to more serious thinking.

Field trips, either individual or group outings, varied the routine of lab. work. One trip in particular was outstanding. Pilobus which requires fresh horse dung in which it germinates meant a jaunt to the stables at the Mountain Lake Hotel. Here Sandy, with all the experience in the world, sneaked up on a horse and caught the needed dung -- two seconds fresh. And that would be the day it was too cold to roll down the windows in the car!

Many individual trips to the surrounding woods brought numerous plastic bags of mushrooms to the lab for identification. Lanny went every day and had them spread all over the place. Some even enjoyed long walks back to the station in a down-pour of rain.

But that wasn't all............. Do you remember........... ?

Charlotte "jazzing-up" the jelly fungi. . .
Malcolm finding a new fungi that turned out to be Dr. Miller's
cigar ashes. . . "Not genera, genus."
Tom's lecture on parasexuality. We're against it; we'll take
it the old fashioned way.
"Should we know that?" "Who asked that?"
"Dr. Miller will you come look at this?"
"A graduate student should find out for himself."
The stinkhorn. . . worse than the dung.
John keying mushrooms by the picture method. . .
vialcolm culturing Coprinus on cow dung media and liking it. . .
Dr. Miller borrowing cigarettes, returning new packs and then borrowing from those.
John, "the Great Pumpkin", finding Clitocybe illudens, commonly known as the Jack-o-Lantern mushroom. . .
Bill with his gay and optimistic outlook ("I hate everybody") and the frequent consultations in Gray's Manual to settle disputes over the Indiana Pipe family and the difference between tree of heaven and Mountain Ash. . .
All those reprints on the fungi. . .
John and his frequent trips upstairs to visit a certain young lady.
This time the girls "got lost". They say they did it on purpose.
Doug who nearly turned into a mushroom himself by experimenting with preservation of color in mushrooms. . . All those little vials and funnels and smelly solvents. . .
Dr. Miller hobbling around on his sore "volleyball foot". Still he always came to peer at the goodies under the scopes whenever we called.
Dot and all those slime molds. . .especially the foamy Rise, straight from the can.
. . .conidia, karyogamy, ascocarp, Dr. Couch, oogonium, Pythium, basidium, operculate, Alexopoulos. . .

We learned much about fungi and many other things in mycology. We'd like to thank Dr. Miller for his time, his efforts, and his interest in making mycology an eye-opening and worthwhile experience.

## Ornithology Class

Perhaps you were awakened at 6:30 a.m. by bird watchers trooping past. Relax -- it was simply the Ornithology class out on one of their field trips. Field studies were emphasized this year with morning hikes, all day trips, and individual nesting-study projects. Under the leacership of Dr . J. J. lurray, Sr ., we managed to spot fifty-six species of birds on the mountain top. Another species we spied, the Nightowl, was curiously omitted from Peterson's A Field Guide to the Birds.

Lectures were spiced with such delicious surprises as a class demonstration on "How to Skin a Bird and Make a Bird Skin". Homer Humaw did such an admirable job that Dr. Nurray snatched up the hapless cowbird for his own collection. The female cowbirds, alas, all the cowbirds, seemed to miraculously disappear from the campus after the third straight morning of shotgun blasts by Dr. Murray.

Remember the marathon trip to New River to see the Bluebirds, Redheaded and Pileated Woodpeckers, Wood Ducks, and The Green Heron?. . .then on to Butt Mountain where we enjoyed the beautiful view just as Frank Thompson had said we would: It was worth it though, to scale the teetering boulders in search of a vulture's nest and to see the Redtailed Hawks soaring. Hiking to the Cascades and back provided the perfect end to a perfect (perfectly drenching and perfectly exhausting) day.

These class members, who caused untold grief to unsuspecting hikers, could readily be identified by their ever-present binoculars and concealed hiding places -- all in pursuance of their bird nesting studies:

Chestnut-sided Warbler Gazer -- Ben Cripps
Rose-Breasted Grosbeak Grandmother -- Anne Mester
Rufous-sided Towehee Helper -- Susan Cornick
Cedar Waxwing Midwife -- A. L. Whitt
Catbird Scrutinizer -- Cape Bierne
Wood Thrush Watcher -- Frank Thompson
Least Flycatcher Inspector -- Brenda Kiessling Ovenbird Surveyor -- Henry Drudge Solitary Vireo Adviser -- Fairman Cumming General Overseers -- Emily Tyler and Homer Mumaw Supervisor -- Dr. J. J. Murray, Sr.

## Second Term 1965

Classes

Animal Evolution and Speciation Class
or
"Hesperiid Holiday"

A description of the work of the AESC is necessarily a bit dull to the layman, uninteresting because of the serious, hard-working people who comprise the class. This lack of levity is partially due to the hard taskmaster who taught the course. As Dr. B. himself proclaimed -- this was not a play course like the others. However, to serious people serious events are more interesting.

The study of current microevolution in the local lepidoptera necessitated much field work to procure material. on these trips we stopped promptly at 12, except when Dr. B. didn't want to drink ? on a church (Churchus montana) lawn, for our midday repast of (at least in the case of one individual, water, milk and coffee) scraps left over from the rather untrustworthy ecology class (please note lack of capital letters). Because of our broad interest, we did not confine our fieldwork to lepidoptera. For instance, there was the time when Jim, Malcolm (how did he get in this?), Wilbur, et. al. were swinging on a vine (Vitis). When Janet (Homoetta georqinsis), our most graceful member tried this, she landed on her dernier and bounced three times. This same day Malcolm saw a Diana (Speyeria diana) down a steep bank and just about jumped off. Then there was the trip on Friday-the-thirteenth when we met a huge truck, broken down and blocking the road. After waiting awhile we back-tracked and drove around the truck on the clover Hollow road only to be stopped by a minor, but again road-blocking, accident. Not everybody got excited about field trips. Anne hated them so much that she tried to break her leg (and nearly succeeded) to keep from going. Susan (sometimes known as Sally) was a bit unusual on our trips because she was quiet sometimes, which was not true of the rest of us, especially Wilbur and Dan. Un these trips we were protected by Graham (Doug-type) riding "shotgun" and Diana, the Butterfly hunting goddess. Dr. Burns -- sometimes known as "Skipper-eye" and Doug far outclassed the rest of us in the use of the net, but Janet might be an exception. She caught four of her 60 Monarchs herself (We sprayed them with DDT and then let her catch them). This field work strengthened Sloan's determination to continue her graduate studies -- in physiology, where she hopes she can avoid butterflies.

Not all of our precious time was spent in the field. Lecture and lab were the real heart of the course. Like Anne on the field trips, somebody always dragged their feet. In lecture that was Jim "The Bear" Sigros, the Greek of antiquity (and of Winchester, Va.), who slept until 10:00 o'clock. Dr. Scvortzoffva (that's Cathy) didn't usually sleep until 10 but she changed to another course, ichthyology, about half way through. Janet (a blond who dyes her hair brown!), made a major mistake when she told Dr. B. that skippers were ugly (a sentiment with which the writer heartily concurs). With the above exception we all worked hard and long. An important occasion helped to break the monotony. This was the "Symposium on Higher Classification" with Dr. Yew R. Frass, B.S., M.S., P.H. \& D., as chairman. Dr. Dan zimmerman (D.D.) one of our group, gave the most important paper of the symposium, titled "The Importance of the Screw-eye in the Higher Classification of the class Cyclohelixipha (screws)" Another worthwhile paper was the "Capitulum as a Taxonomic Character in the Suborder Capitulosa Fam. Capitulidae (nails) and Fam. Microcapitulidae (brads)". Also presented was the description of a new genus and species, Neocyclohelixa capitumphilipsis (Phillips-head screw), the most advanced member of the phylum Wirifera. There was some lower quality work presented. Dr. Epargyreus Clarus was the champion frass-flinger.

Frass-flinging brings us back to our regular lab work. We analyzed a sample of one species for variation, we dissected the genitalia of 30 females of one species, and we raised some Silver-spotted Skippers from larvae to adults (which, contrary to hopes and expectations wouldn't mate). Some of the caterpillars died of constipation. The poor fellows weren't helped by Caperton, that creature so lovely that just her touch induced antiperistalsis in the little green worms. Then there was Cathy who allowed that her spermatophores were bigger than Jim's. From all of the work we learned a few things: (1) Malcolm wants a Diana, (2) Don't use personal pronouns when dissecting genitalia, (3) The speciation process is fundamentally one of major species-producing mutations induced by the environment, (4) Sex is even more important than we had supposed, and finally (5) Donkeys are prohibited from using a certain barn near Kire.

## Ecology

The ecology class was taught by "Gentleman Jim Handlan" of Potomac State College. The class consisted of that unforgettable trio: Tom, "The Falcon"; Sandy, "The Fang"; and Lanny, "zero". Others were John Cummings, Gerry Rilling, Charlotte Snyder, Judy Bryan, Dave Lehman, Ron Hall, Lou Tarnowski, Laura Linn, Sandy Hake, and Carey Vasey.

Being an outdoor course, the following classic remarks were constantly heard!

What is it? I don't know. Collect it. Grab that there grunt weed.

That's funny; I can't remember ever having seen that before.

What's that in the grass over there?
POISON IVY? Where's the Poison Ivy?
PLEASE, would you pass the prunes.
An insect!! Squash it.
By the way, what does happen to string left outdoors for five weeks?

Ch, I think I felt something crawl across my feet!
by fairman cumming
I.

The California Golden Bears include a population
Cf drole but charming professeurs who fool with speciation, and pigeonholing Coreopsis
By their gene complexes
But the strangest morphs on Bancroft Way are beatnik intersexes.

CHORUS:
Ch there's plenty explanation of our mixed-up generation
Like segregation, point mutation, and recombination--
But one complex that ought to be delight for Sigmund Freudy:
It's superisoileuautoalooctoploidy.
2.

The beatniks have monomials with inhuman connotations The differentiation of their sex is fraught with variations And there's one trait you can't explain by mite or meiosis-No dainty toenails can be seen--their feet have halitosis.
3.

With rags and tags of burlap bags and hair like old dust mopses Their clothes too gross for female hags nor freakish like the fopses
Their vocal grunts preCambrian and their poetry mighty gross is Their nuclei with sick deoxyribonucleosis.
4.

Now if you'd give the opsite sex emotion and devotion It's best to count your $X-Y$ genes and keep the diploid potion Your fun with numbers somatic--not numbers chromosomal But if you slip--some day you may with her share your binomial.

## Protozoology

The purpose of our class according to the catalogue description was to collect "hunks of gunk" and to examine the sjimple (who says they're simple) protozoa therein.

We had the opportunity to become very close as a class from the very beginning for we were lost for one entire afternoon in the vicinity of Mann's Bog at the mercy of our local, native guide, Malcolm.

We showed unusual interest in our work. For example, Bill was overheard to exclaim one day while poring over his microscope with smoking pipe in hand, "and the motion of most of these animalcules in the water was so swift, and so various upward, downwards, and round about that 'twas wonderEul to see. . ."

There was never a dull moment. One day Jim was very excited when he thought he had discovered a new culture media until Larry sheepishly admitted that it was his tobacco juice.

Linda broke up the class on the day that she said sexual reproduction of the protozoa was a divine process (or did she mean dividing process?)

Dwight was always trying to show Dr. Thompson a beautiful protozoan (unidentified flying object as he called it) but it usually turned out like the old fish story -- "You should have seen the one that got away."

Larry and Jimmie took Protozoology hoping that it would help them in their future partnership as professional Septologists -- septic tank cleaners if you like. Sandy has promised to be their secretary provided she doesn't get too covered up with work. Jimmie was so impressed with his first view of teeming protozoan life that he said with a "hymn in his heart", "I think I'M going to have a coronary!"

The only time during the entire five weeks that the class relaxed was when Sandy baked a cake to celebrate the news of $\mathrm{Jim}^{\text { }}$ s impending fatherhood.

We all finished the course with happy hearts and $10 x$ eyes and, as Leeuwenhoek said, "On several different days I did look upon these little animalcuikes, and for so long, that not alone my eyes, but my very hands got a-weary."

## INVESTIGATIONS

Baker, William, Erskine College
An artificial model and mimetic assemblage using blue jays, (Cyanocitta cristata) as caged predators.

Models and mimics were prepared by painting the dorsal abdominal surface or crickets green with cellulose paint. The models were dipped into a saturated solution of quinine sulfate to make them distasteful to the birds. The experiments were designed to test the reaction of the jays to models and mimics which they would not have encountered in nature.

Buhan, Paul, Virginia Polytechnical Institute
Etheostoma flabellare, the fantail darter, is a percid fish of the sub-family of darters (Etheostomatinae). Like most members of its sub-family this species is an inhabitant of riffles in which it darts from stone to stone amidst the turbulence. In 1888, David Starr Jordan enobled the fantail with the title of "The darter of darters". It is a distinction well-deserved for this fish is one of a few which dwells far upstream in mountain habitats of the eastern United States.

It was this tendency, to range from the mouth to the headwaters of streams which brought about the study of altitudinal variation in this fish. Two streams were selected for study. Collections were made above and below the Cascades in Little Stoney Creek and at selected elevations in Stoney Creek. Fred Marland and Homer Mumaw bore the yolk of the seine on many of these field trips.

Standard taxonomic counts and measurements were made; but the primary goal was to compile a comparison of vertebral counts between these samples. Vertebral number has a positive correlation with altitude, for example, developmental temperatures. Also, while at the station, a preliminary study of variation of color patterns as a result of growth was completed.

Hinton, Fred, University of North Carolina
Work on the perennial ground cherries of the Carolinas, Physalis heterophylla, Physalis virginiana, and form of uncertain status found on sandhills along the fall line in North and South Carolina, began as an attempt to determine whether the sandhill form, which has been described as a species, $p$. Lanceolata Michx., as a variety of $p$. heterophylla vav. villosa Waterfall and as a hybrid, is actually a hybrid between P. heterophylla and F. virginiana. A natural population of hybrids between $p$. heterophylla and $P$. virginiana found in Blacksburg shows that the sandhill form is not a hybrid because it bears little resemblance to the real hybrid. However, the sandhill form may still be of hybrid origin. The goal now is to determine the genetic and taxonomic relationship of all these forms by means of breeding experiments, morphological comparisons, and determination of chromosome numbers.

Hyman, Mike, University of Michigan
Diemyctylus viridescens, the eastern newt, has three major phases in its life cycle. The larvae hatch in the water, metamorphose into terrestrial "red efts" and after 2-4 years metamorphose back into aquatic newts. The second metamorphosis, because it involves migration from land to water, is called the "water drive syndrome" (in addition to migration, skin color, texture, and morphological changes occur).

The anterior pituitary hormone prolactin causes water drive. The hypothesis is that the hypothalamus inhibits the secretion of prolactin until the proper time and then the inhibition is eliminated and prolactin is secreted and the eft migrates to become a newt. To test this, a barrier is placed between the hypothalamic neurosecretory channel and the pituitary; if the hypothesis is correct, the animal should migrate.

How does the hypothalamus "know" when to stop its inhibitory action? The second hypothesis is that the sex hormones control hypothalamic inhibitory action, and that when the estrogens or testosterones of the eft reach a certain level they cut off the hypothalamic inhibitory action, prolactin implanted in the hypothalami of the normal, non-migrating efts, and they should head for water. An artificial environment has been created to test the migration.

There are other things involved such as the skin and tail changes associated with the syndrome but these experiments are still in the planning stages.

Marland, Frederick C., Virginia Polytechnical Institute ----"That's a puzzle and I certainly haven't got time to straighten that out for you, because I don't know the answer myself" ---- (Talk on the Origin and History of ifountain Lake, By Dr. Ivey F. Lewis; June 20, 1957).
-----"The interest that attaches to the lake is the mystery of its source."----(E. A. Pollard, 1871).

The purpose of the investigation was a study of the ecology of the bottom fauna of Mountain Lake. The scope has broadened to a paleolimnological study.

The unique setting of Mountain Lake is composed of many things -- one of only two natural lakes in Virginia, the only lake of any size in the southern Appalachians, the ecological simplicity of the Lake (e.g. 4 zooplankters), the reports and legends of its recent past (e.g. complete drainage four times in the past 250 years), the conflicting hypotheses of the geological origin, the age and history, the appeal of its beauty and quiet charm.

The history of a lake reserves its drama for those who know how to read it. Such a study would not be possible without the earlier works by E. S. Deevey, Jr., and especially by D. G. Frey and his students. Enough has been done to suggest the amount that can be learned about the history of
a lake and its watershed is enormous. As pointed out by Frey, the sediments that accumulate in a lake basin represent the integration of limnological processes in the lake and of external processes, including climate in the watershed area. Incorporated in these sediments are the morphological fragments of past animal assemblages. Certain of these microfossil remains can be important indicators of past plankton abundance, and these likewise reflect the general ecological conditions of the lake and its surrounding watershed.

It is hoped that the microfossil layers can be correlated with each other in different cores to establish a stratigraphic scale of age. If the lake is old enough, by the use of several cl4 dates at certain horizons, it might be possible to correlate with late glacial and interglacial stages on the continent.

Smith, Eugenia, University of Michigan
During Amphibian metamorphosis the level of thyroid hormone increases in the blood and precipitates the morphological changes characteristic of the transformation from tadpole to froglet. Ethin postulates that thyroxine causes maturation of the median eminence of the hypothalamus releasing more thyrotropic releasing factor into the blood near the anterior pituitary. The pituitary then produces more thyroid stimulating hormone and, in turn, the thyroid produces more thyroxine. If this hypothesised developmental cycle exists, it should be possible to cause precocious but normal metamorphosis by implanting pellets of thyroxine within the median eminence, thus, inducing its maturation. This experimentation has been done in Rana clamitans tadpoles.

Stewart, Robert, University of Kansas
Work included the raising of Mecoptera (scorpion fly), the search for a new family of soil-inhabiting wingless flies, and catching and raising crane flies.

Walton, Lucille, Danville, Virginia
Continued work on the bud gall of Picea rubens (Sargent) caused by the insect Pineus floccus (Patch). Also attempted to work out the complete life history of this insect which has as its alternate host Pinus Strobus L. Other galls investigated - vaccinium stem gall caused by a wasp and a blackgum flower gall caused by a midge.

Walton, Margaret, Danville, Virginia The survey of the crayfishes and their ostracod and branchiobdellid associates of the Mountain Lake area, undertaken by Dr. Horton H. Hobbs, Jr., Senior Scientist at the Smithsonian Institution, Dr. Perry C. Holt of the Biology Department at V.P.I. and Margaret Walton, is nearing completion. This survey extends over an area approximately 500 square miles with elevation that range from 1320 feet to 4100 feet and
includes streams in the New, James, and Roanoke drainage systems.

An independent study has been made to determine the distribution of different species of ostracods on the burrowing crayfish, Cambarus carolinus (Erichson).

Wells, William, University of Virginia
The planned research for the summer was to find a suitable botanical organism in which to study cell differentiation. Some work was done in the area of insect-initiated plant galls; however, all of the gall forming insect found to be suitable for the study which was planned were unattainable during the summer. Since suitable material was not readily available the plan of study was turned to endogenous meristems.

Two plants reported to have endogenous meristems were found in the vicinity of Blacksburg. Of the two plants located Cirsium avensis, Canada Thistle, and Convolvulus sepium, the latter proved to be best suited for the area of research.

Preliminary studies with the histology of Convolvulus sepium show that the production of an endogenous shoot meristem by the rhizome is accompanied by the production of a lateral root meristem on each side of the shoot meristem. Utilizing Schiff's reagent and a technique for clearing a whole rhizome segment, it was found that as the shoot meristem produces a distinguishable protuberance on the external surface of the rhizome that the lateral root primordia are just beginning to form internally. With the help of this excellent external "shoot meristem tag", it is planned to undertake a study of the histochemical and ultrastructural changes occuring in the differentiating cells of the developing lateral root meristem primordia.

Byers, Dr. George W., University of Kansas
Work was carried out on the life history of Panorpa (ilecoptera: Panorpidae) in which investigation was reared all four larval instars of three species ( P . latipennis, $\underline{P}$. acuta, and $E$. nebulosa) ; from this data mating behavior in the genus was obtained.

With the help of Bob Stewart, a compilation of an annotated list of the crane flies (Diptera: Tipulidae) of the iountain Lake area was begun. A coverage for each species will include its ecological distribution, seasonal occurrence, and any information on its biology in general.

Handlan, Professor J. T., Potomac State College
Investigations were undertaken involving the microbiology of the forest soils in representative forest type areas. These areas would include the (former Chestnut) cak types; northern hardwoods (beech, maple, burch, hemlock); and cove forests as well as the small krumholtz area at the top of Bald Knob. Little opportunity was available for anything except surveys of suitable areas; some sampling and test culturing methods; and brief mapping of sample areas. Proposed sampling sites established include:

1. Cak - (former) chestnut--near the station
2. Cove - Pembroke shortcut road 613 near the Hotel
3. White Pine Lodge area
4. Northern hemlock, beech, maple, burch stands near the lake and in the vicinity of White Pine Road
5. Small krumholtz area at the top of Bald Knob
viiller, Dr. C. E., University of Maine
During the first term at the biological station, further investigations were carried out on the aquatic Phycomycetes in the area. Much time was spent on devising and experimenting with a new method of isolating water fungi in large numbers in an attempt to establish repeatable methods which can be used later in studying the ecology of aquatic Phycomycetes. Time was also devoted to contriving of a millipore filter to collect the fungal planospores and then streaking these on various media containing certain antibiotics.

Murray, Dr. J. J., Sr., Lexington, Virginia
Investigations, including the entire class, involved the breeding behavior of a group of birds peculiar to the high mountain country in the South.

Two remarkable nesting records were noted during the first
session. A low altitude nest record for the Brown Creeper (Certhia familiaris nigrescens), at 3174 feet at White Pine Lodge, probably the lowest altitude at which this bird has been known to nest in the southern Appalachians. Also, one of the highest nests of the Blue Grosbeak was observed at about 2000 feet near Clover Hollow Church. This next had first been discovered during the West Virginia Foray in late May.

Thompson, Dr. Jesse, Hampden Sydney College
With the help of the protozoology class, advantage was taken of the "protozoan goldmines" around the station (Hunter's Branch, Ferrier's Pond, Bald Knob, Little Spruce Bog, Twin Springs, Cascades, The Frog Lond, Little Stony, and the effluent flow from the septic field). Since each student was assigned a project of examining the "lilliputian world" of some particular ecological niche, several rare forms were reported.

A rare hymenostome, Lembadion, appeared in tremendous numbers in a culture collected from Little Stony. Twin Springs still continues to be a source of "nuggets". Some might recall a new species, Haptophrya Cweni, described from Planaria dactyligera found in Twin Springs by Robert Gillespie in 1957 and the study by Fulton Fite in 1952 who described the larval stage of the nematode Darylaimus, also from the same species of Planaria.

During this session, an oligochaete annelid gave up what is believed to be three new species of astome ciliates. With the help of Larry Smith plans are being made to check this out and hopefully describe our findings in a publication.

Caponetti, Dr. James D., Unive sity of Tennessee
In 1930 Dr . A. J. Sharp ot the University of Tennessee collected ribbon-like fern gametophytes near wountain Lake, Virginia. These gametophytes could not be identified readily because sporophytes were lacking. Since that time, several colleagues of Dr . Sharp have found this gametophyte not only in Virginia, but also in Georgia, Tennessee, North and South Carolina, Chio, and Kentucky. Throughout the intervening years, the lack of associated sporophytes has made identification of this gametophyte difficult.

Recently Drs. Sharp and W. H. Wagner, Jr., of the University of Michigan reported that they have evidence that the unknown gametophyte compares favorably with prothalli of Vittaria lineata (L.) J. Sm. (Science 142: 1483, 1963). The unknown gametophytes may prove to be a variety of Vittaria lineata, but a more positive identification awaits the discovery of sporophytes.

Using various methods of tissue culture, it should be possible to obtain sporophytes either by inducing apogamy or by inducing the formation of antheridia and archegonia on the gametophyte so that sporophytes may be obtained naturally.

Before this can be attempted, however, the gametophytes must be placed in sterile culture. Attempts to surface sterilize the gametophytes have not been successful in the past.

I spent two weeks of August, 1965, at the Mountain Lake Biological Station in an attempt to obtain sterile cultures. Gametophytes were subjected to the antimicrobial agents Desenex, Sodium Caprylate, Furacin, Penicillin, and Streptomycin using various concentrations at varying time periods. Repeated rinsings in $1 \%$ Tide detergent, and in plain sterile water were tried also. Gametophytes were cultured on Knop's mineral salts agar medium in Petri plates. All gametophytes became contaminated except those which were treated with Desenex. Desenex is very toxic and killed both microorganisms and gametophytes.

Upon returning to my laboratory at the University of Tennessee, I plan to continue the job of obtaining sterile cultures of the unknown gametophytes, and then continue the work of experimentally inducing sporophytes.

First term:<br>Dr. J. J. Murray, Sr.<br>Dr. B. E. Frye<br>Dr. George W. Byers<br>Dr. James L. Riopel

Altitudinal Distribution of Virginia Birds
Some Endocrine Changes in Amphibian Metamorphosis
Speculations on the Evolution of Wing Reduction in Tipulidae
Morphogenesis of Lateral Roots

## Second term:

Dr. C. Ritchie Bell
Dr. John Burns
Prof. James T. Handlan

Dr. Jesse Thompson, Jr.
Polyploidy in Plant Evolution
Speciation in Cligophagous Skipper Butterflies
Effect of Ultraviolet Radiation on Microorganisms Associated with Spoilage of Foods
Systematics of Hymenostome Ciliates

SUNDAY EVENING PROGRAMS

## First term:

Dr. George W. Byers
Dr. C. E. Miller
Dr. R. K. Burns
Dr. J. J. Murray, Sr.
Mr. William A. Wells
Second term:
Dr. C. Ritchie Bell
Dr. Clive Crosley

Collecting Insects in Mexico Kodachromes of Maine The Cpossum Birds of the American Tropics A Magic Show

Carnivorous Plants
Butterflies of Virginia

SATURDAY EVENING ENTERTAINMENT

June 19
June 26
July 3
July 24
July 31
Aug. 7
Aug. 14

Movie--Travelogue of Virginia Game night--scrabble, bridge, canasta, rook, monopoly, poker
Movie--"Foxfire", Jane Russel and Jeff Chandler
Bonfire and sing sponsored by Stephen Elliott
Square dance in auditorium sponsored by Chapman
Corn-roasting and folk-singing sponsored by Audubon
Bowling

## WEATHER SUIMMARY

In general, the ten weeks at Mountain Lake were enjoyed due to the fair weather. However, there were few days that found the absences of clouds in the sky. The temperature averaged in the mid-seventies with the hottest temperature recording being $81^{\circ} \mathrm{F}$. Rainfall for the period was approximately 5.35 inches.

## The Liqhter Side

The Dining Hall Crew
(Dwight Hines)
Pavlov would have been proud of our system of announcing meals! But he would have been confused over the reactions of the "animals" after a few weeks. They just didn't salivate enough. Wonder Why?

The "Twins", Buck, and all of US waitresses really enjoyed serving the masses. It was a very enlightening experience for some -- on both sides of the table. The most intriquing part was the "Personalities" of each table during the first term. For example, Kathy had the "animals" on one-half of her table -- they surely could eat. Judy had the Colonel and also the most noted senator from the South -- Filias T. Claghorn, or Foghorn, or Flathorn; it might have been Greenhorn. Well, there was something horny about him.

And remember, Charlotte had the table with the teagroup and Dr. Double-dessert Byers. But Dot had the most memorable table. Remember the mayonnaise, remember the bread, remember the milk, and remember to see if lialcolm had enough to eat:

Dwight had a table. POOR TABLE. Undernourished, undermissed, and under-desserted (especially Dr. Burns \#2 and $\# 0000 \frac{1}{2}$ ). But the best part of the table was the place held by the Baron. . .that's Baron von Riopel. There's not one that loves grits and/or apples for breakfast like that man.

## The Ground Crew

With a good deal of modesty, we can only say that the success of this years Mountain Lake Program can be attributed in no small part to the conscientious efforts of a trio of highly specialized and technologically advanced members of that elite, aristocratic - - - ground crew.

Selected from thousands of applicants, these three were chosen for their special skills with the latest scientific
developments in the field of sanitary maintenance, such as Fisher's new long handled, laminated broom; Ritter's new polysynthetic double action mop; and the latest modernly styled cylindrical steel paper files, the wastebaskets.

Several group forays were made to Mountain Lake's own depository for extraneous materials transferring the remains of many a culinary delight. . .the garbage. In one scientific experiment conducted there, Ron and Sandy had extensive opportunities to observe an experiment in friction, the idea being to test the effects of spinning tires on those same culinary leftovers. Well, have you ever been stuck in a garbage dump?

Seriously, though, we would like to tip our hats one final time to those tireless workers -- Sandy, Ron, and John.

Written by, Sandy, Ron, and John

## DO YOU REMEIIBER

.your first impression of iNt. Lake. . ."Charlie". . . the weather. . "Charlotte" laying a tremendous number of eggs???. . .who's in the net. . .peas and potatoes. . .where are the clothe's baskets. . .extended hikes. . .swims at 6:30 a.m. . . .the morning the bell didn't ring. . .how did the clapper get on Malcolm's front porch. . ."the state trooper" . . ."Eugenia's northern accent". . .Roasted corn and. . . sings in Shanty Town. . .the clarinet. . .mad scientists studying population of Coreopsis. . .GRAHAM PARK. . .Sassafras tea. . .peanut butter in THE spoon. . .Dr. Bell's watermellons . . .crayfishing on the Golf Course. . .Mr. Mumaw's rattlesnake . . .Dr. Riopel playing position. . "Tarzan". . .Dr. Frye-rattle, rattle. . .The Fang, zero, The Falcon. . .signs in the library. . ."iイr. Magic". . .Dr. Thompson's faithful red shirt and brown pants. . .disappearance of a certain someone's tobacco. . .moonlight walks over the top of a car. . .money problems. . .the telephones. . .Dr. Riopel's fireside chat. . . the day we all left. . .?

## FESTIVE DAYS

July 4

Tuly 4, 1965, proved to be a very renown one for the Biological Station. Even though the sky was in its usual overcast state and conditions seemed none too promising, two staff writers for the Roanoke Times appeared and started their coverage of the annual north-south feats.

This tilt found Bob Stewart, a student at the University of Kansas, and Larry Neff, a biology instructor at V.M.I., saptains of their respective north and south teams. The teams and individuals were competing for points for their side and rewards in the form of water color plaques drawn by Hiss Lucille Walton.

As the Times pointed out "The Fourth of July contest, more disorganized than organized" held a great deal of variety-activities ranging from horseshoes to scavenger hunts.

With the butterfly catching contest, commenced the competition, and it did get off to a great start with Ron and Dwight running "half-way" to the lake after one of the members of the order Lepidoptera. But lo, the butterfly came out as victor in this case. As the event continued, the north, in some manner, captured the greater number of butterflies with their star "jump-the-gun" Riopel snagging one in less than a second. This was remarkably breath taking!

However, the boy's tug-of-war had a much different outcome. Remember the anchor man on the south's side? Well, the "Great Pumpkin" made all the difference in the world and much to the chagrin of the north's anchor man Byers. In the same event, minutes later, the southern girls proved that they also had much more than old-fashioned southern charm, in spite of a surprise soaking from the hose directed by Kenny Burns.

Later, after a great deal of confusion about which fire was the right fire, the northerners succeeded in dampening the spirits of the confederates by overturning their can and stamping out the fire while the south attempted to use a more traditional and clivorious means of putting their fire out with $\mathrm{H}_{2} \mathrm{O}$. In the heat of the moment the South attacked the North and in the resulting free for all, banged heads, bruised ankles, and various other minor injuries, and a good soaking was had by all. Nonetheless, the southerners did have a secret to gloat about, thanks to a tip off from the southern sympathizing business manager.

Recall with what great fortitude the watermellon-seedspitters vied for this championship? There was Sandy who got a running start and the final "pit-twing"---the seed ended up under the coke machine; then, what about Dr. Byers who hobbled up to the starting line ("get ready, get set, go") and ended up with a close to victory shot. But all were put to shame when Larry ambled up to the line, fixed the seed just so, and, time after time, continued to break his own far-flying record. Mountain Lake certainly was gifted with a group of diverse talents.

July 4th wouldn't have been complete without one darkhorse victory. Cf course, the gents didn't like to think about it, but Roberta calmly turned out to be the champ of the ping-pong tourney. And this had a far-reaching effect for many grudge-games soon took place in the rec room.

As events were wound up, the gray team surpassed all efforts of their opponents, except, of course, when Dr. Riopel was personally involved. Just for the record, the competition and winners: Horseshoes-Doug Graham; Badminton, Dr. Riopel; Butterfly catching, Dr. Riopel; Ping-pong, Roberta Turner; Watermellon-seed-spitting, Larry Neff; Tug-of-War, the South, Fire-fighting, the North; Scavenger hunt, the South; Volleyball, the South.

With the close of another fourth of July festivity, the North was looking forward to another year!

## Minnie Ball Reward

As the bell tolled softly outside, the dining hall hushed and the director proceeded-

To Dr. Charles E. Miller - honorary member of Hunters Brigade - in appreciation for devotion and perseverance above and beyond the call of duty in attempting to recover and restore Yankee minnie balls to the North. Thus, becoming the first member of the Royal Order of the Knights of the M.B.H. (Minnie Ball Hunters).
With the completion of the presentation, Dr. Miller displayed a sign of contentment for the long hours devoted to the cause.

## Birthday Banquet

Through the years Dr. R. K. Burns has evaded the point of letting Mountain Lakers celebrate his birthday. However, this year Dr. Burns was quite surprised to find that a banquet had been prepared and everyone had dressed in Sunday attire to pay honor to him.

SPECIAL ORDER NUMBER 007
DATE: 19 AUGUST 1965
FROM: Commanding Officer, Director in Charge, James L. Riopel SUBJECT: Presentation of the Mountain Lake Purple Heart

1. Permission has been granted by the Mountain Lake Humane Society to authorize the presentation of the Mountain Lake Purple Heart, at the discretion of the Director in Charge, to those deemed worthy as a result of injuries incurred while defending their teams honor on the field of battle at volley ball.
2. The Commanding officer of the volleyball court, Head Mouseketeer James L. Riopel, Rear Admiral of the Sinking Creek Fleet and veteran of many volleyball campaigns, has named the following as recipients of the Mountain Lake Purple Heart for injuries incurred on the field of honor:

HERBERT ELMER KILLINGER - who while in the course of a violent action on the Salt Pond court sustained a broken finger and gallantly attempted to set said finger without resorting to medical aid.

THOMAS MASON JOHNSON - who while engaged in undertable activities at the Golden Gobbler and undernet activities on the volleyball court under the code name of agent Falcon, attempted to halt the advance of the enemy and in doing so fell victim to a Fang sandwich, resulting in a stiff back.

DOUGLAS ADRIAN GRAHAM - who while managing to always look neat, cool, calm and collected in the face of any danger on the court, and to always maneuver smoothly in all actions, managed to maneuver arm muscle and bone in opposite directions resulting in a detached triceps.

CLYDE RICHIE BELL - (D.C. - doctor of corn) who while courageously attempting to tell a joke in the action of returning a serve, placed a finger in the direct line of fire without regard to his own personal safety resulting in the breakage of said finger. Dr. Bell is also to be commemorated for his excursions in the mobile units while in search of the fearsome Coreopsis. These actions were conducted without regard to his own personal safety OR that of his troops.

DOROTHY ANN SPATES - who while defending women's rights on the volleyball court was stomped, pushed, knocked down, and run over by malicious males, and who in spite
of males, gravels, spikes, or cigars still valiantly maintains that girls should be allowed to play volleyball.

MALCOLM PAUL LEVIN - who regardless of the team or the time, has always managed to obtain an injury of some sort. This includes hurt fingers, back, arms, legs, feelings, and quite often serious damage to his own team's score. In light of the nature of his performance, a special award is to be presented to him. This commemoration shall be known as the aching heart award.

FOR THE COMMANDER

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William A. Wells
Mt. Lake Regiment
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HARVARD GRAD MAKES GOOD

Due to the quiet pensive mood of the director, the inobtrusiveness of the said person on the volley ball court, the powering of the bull dozer in a muffled manner, the contributions of this humble person to Mountain Lake were long overlooked.

However, all of these esteemed qualities, plus more, went unnoticed until a local civic group, otherwise known as Dr. Bell's "After Seminar Christmas Carolers", initiated a program to honor the unassuming man in charge.

After personally conducting a ceremony honoring the accomplishments of other Mountain Lakers, he was surprised to find that his loyal followers had picked the occasion to pay tribute to him.

Thus, being asked to stand, the director nattily attired in his full commander's dress uniform received the following ovations:

Whereas, one James Louis Riopel, making full and skillful use of his many native and acquired talents, has provided a summer of true educational opportunity masterfully blended with ten weeks of unsurpassed recreation, and

Whereas, the work of the said James Louis Riopel has directly or indirectly brought education to the students, fiscal solvency to the staff, happiness to the entire camp, and great honor to the University of Virginia.

Therefore, be it resolved that the following awards be bestowed on James Louis Riopel in recognition and sincere appreciation of his dedication to the Mountain Lake Biological Station:

## Directors Award

by students and Deans of Giles County University.
"Those who can, do - those who can't, teach - those
not classified above, direct."

## Chief Spiker Spike

by U. S. Steel, Hercules Powder Co., and Spalding Volley Ball Mfg. "It is more blessed to give than to receive".

Adventitous Root Growth Award for 1965
by United Fruit Co. "To the top banana on a tropic topic".

Diplomat of the Year by the Red Rocking Chair Fireside Chat Club. "Well done."

Gibson Girl Ribbon
by Hugh Hefner. "For providing the station with a modern Gibson Girl as hostess."

Real Cool Cat Tracks
by Allis-Chalmers Machinery Co. "Ashes to ashes, dust to dust".

## Bar Harvard Bar

by Clark Kerr. "Any port in a storm".
Dead Ringer Pin
by Southern ijorticians and Horseshoe Society. "Close only counts in horseshoes".

Ping Pong Pusher Plaque for 1965
by a skillful server of the people. "It is more blessed to give than to receive".

Trainer's Award (Class 87d, section II)
by S.P.C.A. "To the trainer of Chah-ley, world's foremost Laboratory Retriever".

Crimson Baton
(automatic annual award to the leader of the Red Shirt Clan)

Abe Lincoln Medalion
by Quaker Cats Co., Cream of Wheat Division. "For radical eradication of rebel rations".

Lizard of the Year Scale
by Quaker Cats Co., Hominy Grits Division. "For radical eradication of rebel rations".

Bar Harbor Bar
by University of Maine, Department of Comparative Linguistics. "For the perpetuation of an unknown dialect for future study".

Special Seminar Medal (with cluster)
by A.S.B. "You win some, lose some and some are rained out".

Sogay Sandwich Sticker (with Peanut Butter cluster) by American Civil Liberties Union, American Legion, N.A.A.C.P., KKK, D.A.R., The Garden Clubs of America, and F.B.I. "For enforcement of democratic due process for the Bag Lunch minority".

[^0]The Anti-Scrooge Fin by Toy Mfg. Association. "For unseasonal kindness to Christmas carolers".

Daddy Mallet Award by The Crder of the Sticky Wicket. "(censored)".
L.B.J. Lead Dime Award
by Lyndon (via N.S.F.) "For expenditures above and beyond the call of duty".

Position Players Pin by N.C.A.A. "For playing simultaneously, and without regard for life or limb (of others), all nine positions on the Volley Ball Court."

## Guests at the Station

Dr. Horton H. Hobbs, Jr., former director of Mountain Lake and Senior Scientist, Department of Invertebrate coology, Smithsonian Institute, Washington, D. C.

Dr. John H. Reeves and family, former business manager of Mountain Lake and Professor at Virginia Military Institute.

Colonel Robert Carroll, former instructor at Mountain Lake and Professor at Virginia Military Institute.

Dr. Stewart E. Neff and family, professor at Virginia Polytechnic Institute.

Dr. David West, Professor at Virginia Polytechnic Institute.
Dr. Perry Holt and family, Professor at Virginia Polytechnic Institute.


[^0]:    S.F.I.H.C. Ribbon (automatic annual award to the President of the Society for the Preservation of Iced Hot Coffee).

