## VOLUME $25 \cdot$ SUMMER '62



ECHO ElS

# $\begin{array}{llllllllllllllllll}M & O & U & N & T & A & I & N & L & A & K & E & E & C & H & O & E & S\end{array}$ <br> 1962 <br> Editor: Mrs. William H. Pritchett <br> Cover: Mrs. Branka Baic' 

## ADMINISTRATIVE STAFF

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## A MESSAGE Fru: © OE DJREOTOR

Never has the dust settled at Mountain lake as fast at closing time as $\therefore$ ains year: Some sort of record, I think, should be claimed for the five vehicles that departed for Charlottesville at 2 p.m. on the 22 nd . cuurse, this hurried departure also included the Director who must claim the dubious distinction of making his departure before two of our Professors, Dr. Maycock and Dr. Handley, were able to pack. Although Mountain Lakers are always willing to pitch in and help, I have found their assistance is always easiest to enlist when it is time to go home!

Plans for next summer are well under way. Mr. Maurice Brooks, Professor of Wildlife Management, West Virginia University, will teach Ornithology, and a course in Lichenology will be offered for the first time by Dr. William L. Culberson, Assistant Professor of Botany at Duke University. Dr. Charles Miller, an old Mountain Laker by now, has agreed to come down froin the University of Maine and give a course in Mycology. Plans are also going ahead for additional improvements at the station with high hopes at present for the following major items: (1) new paint and plaster for the interior of the laboratory. (2) a heating plant for the lab. (3) renovation of the Stone Museum for a year round laboratory. (4) re-location and construction of a new wood shed. (5) enlargement of the dining hall. (6) installation of a new sewer field. (7) more vehicles for the field trips.

I should like to announce that a reunion of old and new Mountain Lakers will be held at the AAAS Meetings in Philadelphia at 7:30 a.m. December 29th. Dr. Horton H. Hobbs, Jr. former Director and presently head Curator of Zoology, U. S. National Museum will preside.

In closing I would like to thank all of you for the excelilent cooperation you gave me during the summer and offer the hope that I will be seeing many of you back at Mountain Lake when next June rolls around.

Dusan Baic - University of Chicago, University of Zagreb --Histochemistry of insulin and SS groups.
R. K. Burns - retired - Carnegie Institution of Washington, June 1962, Prof. of Zoology, Bridgewater College, Bridgewater, Virginia. - Writing and working on the Station Trails.

Howard E. DeMott - Susquehanna University, Selinsgrove, Pa. -- Response of Pisum sativum to nematode infection.

Allan G. Douglas - Chico State College, Chico, Calif. - Gregarines parasitic in centipedes and millipedes.
James Dvorak - The University of Tennessee, Knoxville, Tenn. - Histochemical studies of the cestode cuticle.

Frank L. Ferrier - University of Virginia - A Histochemical Study of Testis and Ovary Formation in Hydra littoralis.

Eugene Foor -- Six Mile Run, Pa. - Histochemical studies on Clinostimum attennatum.
B. E. Frye - University of Michigen - Blood sugar and liver glycogen as related to inftiation of function of the islets of Langerhans of todpoles of the frog, Rana clanitans, during metanorphosis.

Eileen Gersh - University of Gaiosgo - Study of varistion in clonal species of plants.

Gladys Hyacik - University of Michigan -- Research associate to Dr. Frye.
Charles E. Miller - University of Maine, Dept. of Botany, Orono, Maine - Survey of aquatic phrcomycetes.

James R. Powe11 - Virginia Polytechnic Institute - Studies on the penetration of saprolegniaceous fungi in fish tissue.
J. Riopel - University of Virginia - Histochemical studies on apogamy in Critarium injostwo

Edward Rit.ter - Pace College, N. Y. C.
(1) Texonomy and cytocbemistry of heliozoa (2) Teconory of colorlass euglenids of acus type
J. C. Roth - Viratinia Fontechaic Institute -. Stucies of Profunjal Bottom Eauna of Nountaia Jake, Virginia.

Donald L. Simmons - University of Virginia - Studies on mitochondrial origin.
Judith E. Stokes - Kenbridge, Virginia - Histochemical studies of the cement glands of crayfish.
Lucile Walton - Danville, Virginia; Dr. IveyLewis - University of Virginia -A study of three leaf galls on the hackberry caused by psyllids.
Nargaret Walton - Danville, Virginia \& Dr. Horton H. Hobbs, U. S. National Museum, Washington, D. C. - A survey of the crayfishes and their epizootic ostracods and branchiobdellids of the Mountain Lake area.
Dean Whittier - Virginia Polytechnic Institute - Histochemical studies on apogany in Crytomium falcatum.

TAXONOMY OF SEED PLANTS
1st Term 1962
by Barbara Elder and Katie Tayfor

Don't let anyone ever tell you that keying out plants isn't pure relaxation. All you need is this 1632 page pamphlet called Fernald's 8th edition of Gray's Manual of Botany, a dissecting microscope, two sets of forceps, a razor blade, needles, and about two hours of leisure. And then that glow of accomplishment when Dr. Hardin mentions that it is a monocot that only looks like a dicot.

Even more relaxing were trips down the mountain with Dr. Hardin at the wheel. We somehow never got used to the stops he executed so skillfully - and they took such a short time. The most comfortable of all the vehicles was the Scout we decided. With its firm seats to prevent sagging muscles, its healthful back support, the provision it offered for strengthening back neck muscles, and its safe and convenient means of exit, we will never forget. (In fact I get a lump in my head just thinking about it.)

The field trip to the Shale barrens was especially memorable. The 2rop-off along the cliffs is very sharp here - Dr. Hardin's last words after starting down, clutching a vascularum under one arm and his pipe in the other were "The car keys are in my right pocket - - - if you can find my right picket."

At Cranberry Bog Barbara Elder was almost lost. Luckily the hole she stepped into was only deep enough for one leg. Marvin Scott learned of the hazards of botany playing Tarzan on a vine near Dixie Caverns. "But I saw Katie swinging on it" he remarked looking up from the ground. Dr. Hardin also found out that swinging can be harrowing. But this time it was because his students each needed a push on the swing at White Pine Lodge - in order to observe the surrounding vegetation at a higher elevation.

Saturday afternoons the lake was invaded by a frogman clutching a vascularum. Nelson Trinkle was after submerged aquatics again. Carl Keener, keen on Potentilla took great delight in kidding Marvin, especially on Friday nights while Marvin was trying valiantly to concentrate on his oak leaf slides. Barb's Conta was the expert on identifying Ericaceae but had to hurry before Katie Taylor and Barbara Elder had eaten the small round bluish fruits of certain members of this family.

Even though Dr. Hardin was on a strict allowance, we found him quite generous at "treat time". Of course, there were times we would have had lean pickins' without financial aid from others in the class.

All kidding aside, much was learned of the methods and problems involved in plant classification during these five weeks. Plant taxonomy is no longer such a mystery. Those of us lucky enough to be in Dr. Hardin's class found that the knowledge we gained added a lot to our powers of observation, our understanding of natural relationships between plants, and our appreciation of Life's intricacies.

## PROTOZOOLOGY

The Protozoology class consisted of six graduate students equally divided among the sexes--three southern belles and three yankees. The South was well. represented with Page Davis, Nancy Price and Ruth Horsley. The northern gent?emen were Gene Foor, and the brothers Layman - Herb and yours truly. Dr.Reginald Manwell, the professor, gave the North the edge in numbers, but not in looks.

Although the class never went on field trips or lengthy safaries into the hinterland, we nevertheless explored the microscopic habitat of the the freeliving protozoa quite extensively. We would merely insert our eyeballs into the microscope tubes and be in a completely new world of small animalcules which were painstakingly observed, drawn and classified.

Both free living and parasitic forms were studied, but since Dr. Manwell has done extensive research with bird malaria, the parasitic forms were stressed, especially those of economic and historical importance to man.

Prepared slides of the parasitic protozoa of man; trypanosomes, amoebae, malaria etc. and his domestic animals were observed. Papers were presented by the student to acquaint him with the multiplicity of research that was and is being done in the field.

I speak for the entire class when I say much was learned of the protozoa and much was enjoyed in the course.

Don Layman

## HERPETOLOGY

Probably the best summary of this summer's course in herpetology could be found in the course description or the Mt. Lalie Eulletin: "Field stuay of the local herpetofauna will be studied." Certainly the members of the class would agree that the afternoons from June 14 - July 17 were prooi of this statement. Everycne had his assigned duty ( formalyn man, bottle man, etc.) to do before teking off on the various field urips. Giliked by our driver, Ashby Coffendaffer, we managed to see ene or two roads of the county throughout the duration of the course. With a strong determination to bring back living specimens, particularly rattlesnakes ( all bets being placed in lab), our favorite haunts turned out to ke New River, Rattlesnake Mt., Lockoff Rock, the Cascades, Sinking Creek (complete with dynamite charges) and Hoge's Pond, which, according to Harriet Jcpson, supports unbelievable mud deposits.

Before many days had gone by it was apparent that fireplace pokers were good for pulling rctting loes apant; iron bars hurt when dxopned on human skulls (so do rocks, incidentally); Texans hesitate to relinquish "free information;" and Ann Palmer always finds some excuse for a Nuttybuddy stop.

All collected specimens were keyed on return to the lab and described in our field notebooks. Ohr "museologist," Judy Doty, menaged to label and preserve some specimens while others remained in our own little "zoo" (all arranged in a neat manner, however).

Our mornings began after a brief coffee hour ( 2 cookies on the 4th) and were spent taking lecture notes. Lectures were centered eround speciation and classification (It sure would be nice to know who wrote that monograph) and some excellent seminars were presented by class members (was it yellow on red or yellow on black, Bill?). We even found time to schedule an overnight hike to Whitetop Mt. Thanks to Jim Strength, and his camping equipment, the trip was a success and we returned with reports of various endemic species ( not the least of these being the tollgate keeper).

Our "free" evenings were spent attending evening seminars and working on research projects. It would seem that Plothodon glutinosis had a rough time this term with Henry Robinson removing its skin and Virginia Wrightnour chopping, wildly, at its tail. Our project papers were completed in time for a final exam, thorough house-cleaning, and saying goodby to all.

Joe Keller

During five weeks under experienced field biologist, Dr. Tom Daggy, six insect ecologists roamed grass, pond, and forest to observe the "bugs" in their natural environments. SpelunkIng, sweeping, butryic acid inhaling, and rock turning have faded, but a poem by the Daggys will always remain for fond menories.

I think that I shall never see
Six students who worked as hard as we;
With nets and vials, and jarsgalore
We ${ }^{\prime} d$ set out - the environs to explore.
Sunshine or rain - it made us no mind;
'Twas insects we wanted, whatever the kind;
The HERPS at first could not succed
So we caught snakes to meet their need.
Brown Bomber, then off to the caves, and zowie!
At Pig Hole, who was it fell? Howie!
To VPI and cockroaches abounding
In the lab - not how this is sounding!
Watching fireflies on Saturday night We couldn't fool a mole with a flashlight. "Doctor Birge" took the temperature of the Lake;
We could have told him - look at us shake!
Stem-mother aphids, Miss Lucy explained,
Produce cones in which panthenogen are contained.
Centipedes, millipedes, gregarines, spores;
Douglas revealed the parisite ${ }^{\text {s }}$ mores.
Looking for bloodworms in buckets of mud Dccupied Carol who was minus a "hub".

Dead dog-marked beetles-golf course and car;
Two boys-two beetles returned--not par!
Stone flies are part of what Don sawLikes them well enough to give up law.

A glance in the lab by day or by night Showed Claire ${ }^{\text {t }}$ f furrowed brow - "Is it right?"

From morn ${ }^{\text {t }}$ til night the bells did ring
For meals and hikes and everything.

Breakfast done;little Riopels revel Time for Daddy's toy to level.

Volley ball time was after supper All-stars versus faculty and others.

Fourth of July was held on the sixth, The South won and it wasn't fixed.

We'll never forget our early days in biology and the summer we spent in insect ecology.

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Hello.
Werre glad to see you.
We are from Histochemistry.
We have fun.
We have fun with colors.
We have pretty fingers.
See our pretty slides?
This is our big Daddy Gersh.
He has a moustache.
He teaches us how to make pretty slides,
He teaches us how not to freeze our fingers.
This is Henry.
His las name is Robinson.
His favorite color is pink.
Pink hydra, pink eyes.....
Please meet Ruby.
She is not as little as her name.
She is alvays cutting up!
Vegetables.
This is Don "blue-green" Simmons.
Ho has a friend named Ruth.
He has soft hair.
He sees little blue dots.
He calls them Mitochondria
This is Sandy Colburn.
Her fingers come in technicolor.
Fast red, Methyl blue......
Blond hair, blue eyes, bite-size.
A-1.
This is old John.
Old John Norris.
#e likes to argue.
IIe tells bad jokes.
He teaches anatomy.
Oh. Roy!
Mhis is our friend,Jim Dvorak.
Iie looks for tapeworms.
Some call him James.
We call him Curly.
This is our other friend Jim Powell.
He has a funny laugh.
Tee Hee.
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This is little daday Eaic ${ }^{\prime}$.
He helps us when we are about to freeze our fingers. He puts cotton in our ears.
This is our other Don. Layman.
His favorite word is gallocyanin chromealum.
He feels Gladly about bunnies.
Next is Bill Campbell.
He works in the back room.
He keeps the dcor closed.
He works best at night. After hours.
Last but not least, there's Shannon。
She's a Cumming.
Partner!
Planaria, pig tails, paper dolls.
These are her interests.
This is our class............... Family?
You have met us.
Well.
We would like to meet you.
"Off we go like a herd of turtles - now let's take it nice and easy - would soneone please wake Page, I'm ready to lecture - just a sec. - now don't forget the dorsi-ventral, polycyclic dictyostele with intermedullary schlerenchyma strands - I cen ${ }^{\dagger}$ t go near Kentucky, all the Kentuckienses will die," On all fours or posteriors, the Pteridology class covered every inch of Giles County and surrounding areas. (On rare occasions amphibian characteristics were necessary.)

Many new state and county records were made by the class: Old Antidue for Raj.eigh, Dr. Wagner slayed one bull and two copperheads (the copperheads increased in length each time the story was told and his heroism decreased with the "bull story"), and the class had lunch once, when Frank Gersh was successfully tied and gagged--but alas, he had gagged himself with our lunch. However, in spite of the hunger pains we managed to survive with Colonel Coffendaffer leading the troops, armed with sardines and "water cooler". While the class collected ferns for the herbarium, Marvin collected for his fiancee's bridal bouquet, Ruth bought a marriage license, and Carl re-wrote Gray's Manual. After five weeks of struggling to keep up with Dr. Wagner we were all "pressed" and "good-fernnothing".

## PLANT ECOLOGY <br> Barbara Elder and Katie Taylor

Integration, correlation, compilation and frustration were important factors in the "fluctuating steady state" characterizing this community of plant ecologists. One factor important in our biome was Dr. Paul Maycock, an invader from the coniferous forests of southern Ontario to the deciduous forests of Virginia. The following were also dominants in this particular community. Sheila Rector, a pioneer in the ecology of mycology carved a niche with vials and bottles of F. A. H. Ted Davenport's hat evidenced a deciduous habit as he made his way through the shrub layers ( $t$ such an altitude we expected evergreen tendencies). Marie Gumieny exerted a disturbing influence on the centipede population of surrounding stands. The question still remains as to whether Katie Taylor can really be epiphytic on those upper story trees when she's continually falling into holes. Allen Vinegar, whose majn association has been with zoological formations, succeeded in adapting to plant ecology. Whether tivis acclimation cou!d have been accomplished without periodic nourishment from newly discovered salamanders and animal skeletons is not known. And then, Barbara Elder and Sheila Rector spring-loving varieties, contributed to scientific knowledge concerning the WRC of various niches on White Top Mountain.

Rhododendron thickets provided excellent opportunities to study the resilient properties of the appendages of the class. Luckily, no permanent alterations were made in said appendages but the bluish-black marks left certainly weren't leaf scars. Optimum moisture conditions were of ten observed - for plants that is! No-see-ems, mosquitos, and various other species of fauna found us excellent habitats in the field. A war was also waged with poison-ivy and stinging nettle.

Afternoon safaris led us far afield. We sampled hemlock stands, oakpine stands, oak-hickory stands, and were careful not to exclude the frequent stands of blueberries and blackberries. Whether it was the blackberries, longer daylight hours of Canada, or some other factor, we don't know, but something always seemed to prevent our getting back in time to hear that first dinner bell.

At the morning coffee-breaks, occasional arguments about refreshments (namely peaches) were observed, but were quieted by a serving of gingerbread. Another argument was not quite so easily settled. Sheila's momentous question was "Should I take an aspirin after this meal?". Of course only secret ballot would do for settling this major crisis in world ecological relationships.

These remarks have been in jest. The knowledge we all gained in this course will give us a better understanding of our relationship to the whole of our environment and fit us to make more intelligent, far-sighted use of our resources.

## MAMMALOGY CLASS

Progeffor----C, O. Handley, Jr., Ph.D
Class----Mark Gares, Anne B. Palmer, Bill Pritchett, Joe Keller, Judy Doty, Kay Hess, Ilona Gersh, Pat Dunnigan.
This course was designed to introduce us to the mammals of the world, their habits, peleontology, and their habitais. Special emphasis was placed on the mammals of the Mountain Lake Biological Station area, as the class did
a faunal survey of different local habitats, each week. Bill (modern snake charmer), Joe (I'm not hurt), and Anne B. (the hop-along kid) made up one trapping group, while Kay (nature-girl) Hess, Judy (Modern version of Gray and Simpson), and Master-skinner Ilona worked together; Mark (our Ashby) and Pat (best dressed guy on campus?) made up the third team of the beforedawn expeditions. On Monday of each week, each group vould set their trap line. Then rising before dawn, Dr. Handley ( 37 (plus) inch stride) and the class wert out to their lines, collected their specimens, and rebaited their traps from mouths-full of oatrieal (Arne B. even brought oatmeal cookies for those who got hungry!).

Each momber of the class was assigned a seminar topic on one the recent marmalian orders (or orders). Included in this talk, was a description of the included families and typical genera. These seminars were given throughout the last few weeks of class, and they proveci to be very beneficial and interesting.

The highlight of our course was a four day field trip to Washington, D. C. After our arrival (which almost wasn't, because of our loose wheel!), the men stayed at Dr. Handley's home, while the women stayed at Anne B.'s apartment. The second day of our trip, we spent. at the National Zoological Park, where the head zookeeper, along with Dr. Handley's assistance, lectured on each mammal seen. That night, we spent doing research on our seminars, in the Mammalogy library at the National Museum of Natural History, where Dr. Handley is Associate Curator of Mammals. All of the next day was spent in the museum, seeing representative skins and skulls, as well as doing research in the library. That evening we were treated to a picnic dinner by Mrs. Handley (excellent cook!) The next morning was spent in the library, and we returned to Mountain Lake, full of otherwise, inacessable knowledge (even though Joe kept hearing sirens!)

At the end of our cold, wet (occasionally nice) trapping weeks, each group prepared a faunal survey sheet of the conditions, habitats, specimens, and observations made during our trapping experiences. These will be left in the Station's library, along with representative skins to aid future students in this region.

As a close, we would like to thank Dr. Handley ( and his tireless typing assistant, Mrs. Handley) for a very thorough, well organized, and educational course in Mammalogy.

Pat Dunnigan

ENTERTAINMENT
June 16 - The Olympics - Stephen Eiliott Cottage
June 23 - Dogpatch Costumes and Games - Da Schweinitz Cottage
June 30 - Animal Masquerade and Games - Chapman Cottage
July 7 - Scavenger Hunt - Audoubon Cottage
July 14 - Examination Study Time
July 21 - Bowling - Riopel, Frye, Douglas
July 28 - Concert - Shanty Town
Aug. 4 - Talent Show - Girls Dorms
Aug, 11 - Movie - Man with a Million- Boys Dorms
Aug. 18 - Exams

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80-90 Mt. Lakers
    3 cooks
    6 waiters, experienced
    1 dining hall
    1 kitchen
12-20 children, neat and quiet age
    3 bags coffee
    4 \text { bags iced tea}
    \frac{1}{2}}\mathrm{ case eggs
    8 lbs. bacon
    1 case peanut butter, crunchy or smooth
    l gal. fruits for salad
    8 long loaves French bread
    5 \text { tablespoons chili powder}
    1 banana for sandwich
    2 cases waffles
    1 large kettle chili
    3 boxes hot cake mix
    12 doz. pecan buns
    1 gal. tomato puree
    30 lbs. scallops
    30 1bs. shrimp
100 pizzas
    7heads lettuce
    1 large pan cole slaw
100 baked potatoes
    8 packages spinach
    5 gal. banana split ice cream
    1 doz. lemons
    l case milk
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Prepare 6 tables with silverware, glasses and plates. Add 6 waiters and three cooks and stir well. Mix $80-90$ Mt. Lakers with 1 dining hall and season with chili powder. In one large day, place 3 meals - 7:30 A.M. 12:30 p.m. and 6:00 p.m.

From 6:30 to 7:30 A. M. combine coffee and water, scramble eggs, fry bacon, and sprinkle some days with chopped waffles, hot cakes, and pecan buns. When served, add more steaming hot coffee as required. (At high sltitudes, add oatmeal and 1 cozy fireplace and "lots more" coffee.)

Before 12:30 P.M. place 100 frozen pizzas in the oven at 350 degrees. Brush sliced French bread with garlic butter and mix well with spaghetti and tomato puree. Add peaches, pears, pineapple and cottage cheese and toss lightly. Place on lettuce and serve. In a refrigerator jar, place smooth or crunchy peanut butter, Spread a slice of bread with mayonsise, if desired, and put the peanut butter over it. Slice one banana and add some jelly or jam. Be sure to top this with a glass of milk.

Fry scallops or shrimp and toss with cole slew. Add slowly a baked potato and sprinkle with chopped spinach over it. Let cook for 1 hour at 350 degrees in oven. Top with a scoop of banana split ice cream. Over all, pour iced tea and lemon. Serve promptly at 6 P.M.

FOR VARIATIONS OF BASIC RECEIPE, SEE BELOW:
Fourth of July - Blend well a watermelon seed spitting contest with hot dogs on clothes hangers.
Sunday picnics - Arrange 2 huge trays filled with meats, cheese, lettuce, and add picnic tables, volleyball court.
Hot Day at Noon - Slice watermelons and place on porch with salt shakers. End of Terms - Season with bacon wrapped on sirloin steaks.
Late Morning Breakfast - One early rising mammology class is needed. Add 3 boxes of old fashioned oatmeal minus raisins or brown sugar.
Sunday Dinner - Place turkey, cornbread dressing, mashed potatoes, mixed vegetables, hot rolls and butter on a long table. Season with cranberry sauce, iced tea and ice cream.
Something Special for Ordinary Days - Catch baby mice and place under dinner bells or mayonaise jars.

## athletics at mountain lake

The sports program at Mountain Lake this year, as usual, proved to be very diverse and well particlpated in by the great majority of the station inhabitants. Volleybali, however, rapidly leaped ahead of other activities and proved to be our greatest spectator event. Every evening after dinner one could hear the herald "Volley Ball" ring over the station lawn and people crowded to the court to watch the bloodshed. As the game progressed you could hear coming from the dust of the fray, "Good serve""Good set-up"- "Good spike"-"Good save"-"Get in position"-"Good try"-"Aw Malcolm!!".

When the dust cleared, people were picked up, the referee's discussion was handed down by the Gershes' to settle remaining arguments like, "Was Billie Frye really in the net"? (as he unravels his fingers) - "Did Don Layman catch the ball in or out of bounds?" - "Did the ball touch the trees on serving?" - and "How many people on this side hit the ball"? Players were again checked for bruises, sprained ankles, displaced fingers and the game was then allowed to continue to see who gets the second point.

Horseshoes had a fair following as Don and Herb Layman challenged all takers. Curtis Woodfolk, Ashby Coffendaffer, Gene Foor, Bill Campbell, Dǐ. Miller, Dr. Frye, and Dr. Riopel usually supplied the qposition from time to time. Marvin Scott and Carl Keener also had their grudge games after dinner though they never said who won. Jack Horsely, Charlie Miller, and John Norris proved to be champions in the junior division.

The badminton court was usually busy on Sunday afternoons during first semester but seemed to be largely neglected except for the younger set which used it daily second term. Table tennis had much appeal for some, as Carl Keener and Gene Foor had their usual warlike games and Bill Campbe11, Sandy Colbert, Mark Gares, Suzie Daggy, Nelson Trinkle and Sally Dekott found this a fascinating sport (?) at night.

Hiking was enjoyed by all who took time to go on Sunday afternoon ventures usually lead by Mrs. Gersh and Don Simmons. Impromptu walks were taken by individuals from time to time and now that we have such well placed signs by Dr. Burns, I predict that this activity will appeal to more people next year and get a greater following. It was found by experimentation that the one way for people to get their walking exercise was to allow them to bring their pet dogs to the station.

Swimming at Mt. Lake was enjoyed by all who could sneak away from classes in the afternoon. Fage Davis and Jim Roth seemed to find more excuses to go than anyone else because Jim could do research on "something or other ${ }^{\prime \prime}$ over there better. Our station swimming pool proved defective and would not hold enough water for the "Polar bear" following it received in previous years.

All events mentioned above, however, were overshadowed by the stellar Fourth of July activities. The second annual North versus South games and ninth annual North-South volley ball game proved more exciting and after being postponed two days because of "wet field" conditions, the events were held on July 6th.

It all started with the coveted "Fire event". The South had many schemes such as fire extinguishers and water filled plastic bags as secret weapons in nearby cottages. This information was gathered by a Northern spy sitting inside empty Laing Center with the window open and the shades partially pulled. The North was indeed puzzled at the time although Gladys was sitting innocently about 30 feet from the North's fire with anextinguisher placed under the blanket and others were strategically located in the nearby rock garden.

The umpire (Dr. Riopel) got so many complaints from bystanders, however, that he outlawed all this and as his suspicions grew he even tried the water hoses before the alarm bell rang. This uncovered the last secret weapon of the North and from there things had to be "fair and square". As the bell sounded, there was much scurrying from all corners of the lam as everyone manned his post. The hoses were stretched in seconds and there was an awesome pause by all as they waited to see water gush out the nozzle. But Alas, as the smoke cleared, it was decided that the south side had won and had thereby jumped into an early lead.

In the tug of war, the South won the toss-up again and for the second year in a row, chose to pull downhill on the lawn. After much straining, the North gave an inch, then a little more, and finally a lot, and the South had won second straight event. The gallant northern ladies, however, came to the rescue and won the feminine tug of war. This, along with the Ritter family's command of the children's croquet round, with Meg first, Kathy second, and Jimmy third, placed the teams closer together.

The South went on to win the horseshoe contest as Curtis Woodfoik took
first and Gene Foor and Dr. Riopel captured 2nd and 3rd for the North. In the badmintoi, Dr. Daggy proved master of the court for the South, while Frank Ferrier also of the South took second, and Herb Layman ediged third place for the North. In table tennis, Gene Foor took first for the North, while Don Adams and Dr. Daggy took 2nd and 3rd for the South. In the water melon seed spitting contest, Ashby "Windy" Coffendaffer set a new record (probably world) at 31 feet for the South, while Ginny Wrightnour of the North took second with 28 feet, 6 inches, and Nelson Trinkle took third place for the South.

As the points were tallied at the dinner table, it was discovered if all volley ball games were won by the Federal forces, the North could still win. As the final events started, there was much apprehension and cheering by both sides as the ladies lined up their teams on the court. The Southern belles got off to a large early lead and although the northern girls put up a hard fought struggle, they could not overcome the handicap, and they went down to defeat along with the North's hopes of victory.

This did not dampen the men's game, however, and after a fiercely fought battle with both sides having good rallies, and many, many good vollies, the Southern men's team found themselves soundly trounced in both games played and the North had, at least, after all other losses, gained a great moral victory.

It was indeed a great day for the South, with much shouting and bell ringing. Hopes were high and everyone from the South was extremely jubilant. But as night settled over the mountain, calmness was regained, friendships were renewed and everyone found himself cumpletely exhansted. But memories of this day will live forever by those who participated and the trophies won will grow in value over the years.

By the way, does anyone know where you can get the good confederate money?

By Gene Foor

## DO YOU REMEMBER?

Nights at Chapman---Don Juan and his blond---Now what's your name?---Who's the girl in Stephen-Elliott with ss?----Rabbits and Rosey Boas--early, early morning trapping jaunts---Not another Blarina---- Goodwin's Ferry Cave and a hole in the head-----Chop, Chop, citizens, let's go----Many letters from Europe-----extended week-end trips to Amelia and ohl those Monday mornings!-.---Purty little thing--.--you sweet 'ole thing---Tee Hee-Black widcw spiders in one bed in Audubon---Why did one waicress spill tea and giggle all through dinner?----my absolute favorite---taking temperatures down at the lake---clipping toes of Rana clemitans---Crip at the zoo-I swave, I never polkaed before---rolls, biscuits, buns---witch-hazel hats and brooms----but really, Dr. Burns, must we go straight down those rocks?Five a. m. and back at the lab---T. P. Raids----trail blazing and sign painting----the smaller of the pain had the greater amount of ene gy--What son from above Cayugss Waters became a typical Salt Yond Mountaineer?-... the day nursery on the lawn-..- the Barber Shop Guartet and the haircut (only one real mustache in the group)----and what did he wear under his kilt?---
feeding Rosey----the Honky Tonk pianist from Michigan---the 4 -way cold tablets----the widow's peak on the embryonic 2nd Lt., retired, of the U. S. Army----the people who couldn't stay on the road from the Lake--and off we go like a herd of turtles-----and wouldn't it be nice if we knew what everybody was thinking---Jules Verne and his Pa. mermaid---let's take it nice and easy--the hurt fingers at volley ball---9 new ( 4 legged) additions to the station, one named Susie, wonder why?--was it 1:45 or 1:50?---a certain histochemist who knows how to make cole burn-Daggy - non-faggy, all- round nice guy---two eggs in the fryeing pan--the sweet Gerber babies---limping lobster legs---riddle: the crew-cut, the lake and a page (?)-------

ODE TO GLADYS FROM THE SUN

By Lisa Frye

Alas - what sight is this my eyes behold
As I arise to light the scene?
Someone with spirit bright and bold
To the lab. has early been!
And as my fingers touch the sky To paint it pink and gold and red I see Gladys passing by While other folks are still abed.

In the wee small hours she gets up
Brushing dreams from sleepy eyes.
And mutters to her coffee cup
"We've got to get that Nobel Prize!"

## VISITORS

Dr . Ivey F. Lewis and Miss Elliott Lewis visited the Station twice during the summer. Dr. Lewis was Director of the Station when it opened at its present site.

Dr. Horton H. Hobbs, Jr., who is now Head Curator of Zoology at Smithsorian and was the Director of Mt. Lake immediately preceeding Dr. Riopei, cane for an all too short visit.

Mrs. Bruce D. Reynolds, widow of the late, former Director Dr. Bruce D. Reynolds, stopped for a brief visit. Mrs. Reynolds is now making her horie in Wytheville.

Mr. and Mirs. Janes W. Wiltshire, Jr. of Lynchburg, who added many aeres to the station property, stayed at the hotel and visitod wich us for sevezal days.

Mr. and Mrs.C. Maurice Brooks came by for lunct. Mr. Brooks plans to teach a course in Ocnothology at the Station nezt sumer.

Miss Amy Garthright, a formar dietitian, came back to visit. Also, Mary Low Hocds who received her M.A. degree last surufer made two short visits.

## RECEIPE FOR OBTAINING ONE MASTER'S DEGREE IN HISTOCHEMISTRY at mountain lake biological station

## Review of Literature:

Past evidence shows that a complete survey of the situation is imperative in order to carry out the work involved in submitting a thesis for a master's degree. Preferably, two summers at the station enables the candidate to look "the field" over in order to determine what will best comprise the materials of the procedures. In this length of time it is possible to determine to some extent, the temperment of the people who come back summer after summer and to learn their varied and indispensible talents. This part of the "project" being completed, it is a simple matter to come up and complete the thesis, take the orals, and afterwards publish an acceptable paper.

Naterials:
The minimum requirement is five people, preferable of the opposite sex. All of these should have the following characteristics, or at least a goodly number of them: easy going, pleasant personality, ability to take all manner of remarks that such strenuous research might elicit from the candidate's mouth, enough common sense to get completely out of the way when the candidate is enveloped by a "bad mood" or plagued by lack of sleep (but never tired), thoughtful enough to bring snacks and be prepared when meals have been overlooked "all for the cause of science", and above all, never speak unless a question is directed specifically to you.

Further elucidation of the meterials is necessary in order to describe the individuals involved, more specifically. An important individual in this list of materials is the typist. The typist must posess all of the characteristics listed in the above paragraph, a great proficiency in spelling and English, and any additional knowledge of biology and histochemistry would also be helpful in deciphering the (always) illegible hand of a graduate student (and M. D.). This person must be ready and eager to type page after page of thesis regardless of the hour and always with four carbcas and a smile. All mistakes must be removed with the art and cunning of a thief so that the candidate will never know that there have ever been any blurs on HIS paper. This individual must put up with poor grades of eraseable bond, miserable erasers, skipping typewriters, and confused bist ever-so-determined scientists. (You would certainly think that after spending so much time with histochemistry they would know which reagent shouid be written with capital letters and which with small letters. Instead, they always wait until they proof the paper to inform you of their mistekes.)

Anotlar very valuable and necessary "accessory" in writing a thesis is scmene to "solp" (?) in the dark room to develop (?) pictures. (The type reccefanded here does not have to have brsins, as beauty in the dark will suffoce.) No paper is worth anything at all without pictures to show the differentiation of stains and the histochemical proof of the worth of all the time spent in obtaining a degree. This poor soul, invariably, must of necessity be a night owl. Pictures are never taken until the day before thes paper must be turned in aild they have to be developed that night. This is an endless task, beceuse 4 copies of each print must be made and there are at least 30 photogray'n fo: the papor--1et's
that mekes 120. Poor girl, her hands ache from the fixer and hypo and for all that effort she receives so little recognition. When she should be getting in hours on her test for the following day, she is dutifully assisting the master's degree candidate in getting ready for the DAY ${ }^{\prime \prime}$.

The third person is the indispensible "printer" who must label all. 120 photographs with a Leroy Lettering Set. (A meaningless jargon of abbreviations, e.g., PN - Probably Nothing or GW - Guess What?) That is a thankless task for the most cheerful and patient of people. This requires endless hours of work. The candidate must be reminded to concentrate on the labels and cajoled into having all of the photographs organized before printing operations begin. When at last the operation is over, the pen cleaned, the set closed, then the candidate begins to concentrate. (This procedure may go on for several days.) After a.11, the"printer" has her own research to pursue. But, by "turning on" the last reserves of charm, the candidate is able to placate the "printer" and the endless stack of photographs is ready to be pasted into the thesis.

The "salve" for the wound of being at an isolated biological station for ten weeks are those charning and amusing people who serve to entertain and divert the candidate's mind from "far away places." These poor creatures are of ten the object of many cuts and obscure remarks that can mean something or nothing. Fun may be made of them, and they may never be at all conscious of it.

The last person to be included in the list of materials, and one whose friendship the candidate should cultivate quite early, is someone in the field of histochemistry. This person kindly consents to give of his time to read the manuscript, make helpful suggestions, and answer any questions pertinent to the text.

## Techniques:

If the candidate is a very enterprising individusl, he will select materials who have a few interests similar to his own. In this manner, the kind-hearted victin of circumstances may be repaid for his en 3 less hours of time, and at the same time the candidate will derive personal pieasure in doing something that is really a form of relaxetion for him. Ansther point of importance is the agility of the mind of the cariidate to anticjpate the needs of the materials fust as the point when tio materials ara ready to give up completely. By a subtle remark, the materials can be mede to feel like heels and at the same time be fired with the detemination not to lec a mere candidate for a master's degrea get the better of them.

Results:
Sach: mich careful thought has been der ted to the situation before oject comrences, the results are alwoys quite $g$ ons. The poor peons have been transformed into marionettes woo move as the striags are pulied and relessed. Frequently these services are arknowledged, but by this time the "servants" are numb and dumb fron effort, boin physically and mentally exlouster, and just thankful that the N. S. is in his vay.

In conclusion, it must be admitted that this is one hundred per cent effective. Statistics will not let us forget that this is true. Only one remark must be made at this point: if ever a pitiful looking graduate student comes up to you with a very sad look in his eyes and asks if you could spare a minute to essist in a scientific venture, STOP! turn in the opposite direction, and run as if you were being pursued by the Devil Himself.

## Judy Stokes

## The West Virginia Road by <br> Marilyn Cooper

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The warm yellow sun beats down
On the dusty gravel road,
Flanked by summer sigris----field deisies,
Sassafras, and tangled weede,
And the avid collecto:
Paces, eyes on the ground,
Searching for the moments of one hundred years ago.
The road was the same then,
Rocky, steep in flaces, wandering
Through the blue mountains
In the far cornar of Virginia,
When the hated Yankee soldiers
Fled along it in fear,
Fled partially from rumors, partially from soldlers.
Yes, and in thejr fea: and running
They dyonped their swords and guns and bullets
Along this timeless read,
An insignificant retrest in the greatness of war.
An! the collector kncrs that midst the dust an? gravel,
With patience, can still be found, their bulle:s,
Mersages of tre past along the Wert Vivginia Road.
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Submitted by
Sally DeMott

WEATHER
Sally DeMoét
The wecter the Eirst term wa very ramarksble. It was wenn and reascnably dry, The newcomers, or so it appeai ed, biought is cosi temperatures aid riin.

It was a good surmer for swiming and sunning ad any other sport enjoyad by Mountain Lakers.

Donald Adams, Rt. 2, Halifax, Virginia
Dusan Baic, 1025 East 57 Street, Chicago 37, Illinois Robert K. Burns, 102 N. Second Street, Bridgewater, Virginia Willian Campbell, 2834 Tilleff Road, Roanoke, Virginia Ashby Coffendaffer, 1609 Reece Road, Salem, Virginia
Sandra Colburn, Rt. 1, Gilbertsville, Kentucky
Barbara Ann Conta, 25 Pickford Drive, Rochester 18, N. Y.
shannon Cumming, 824 Sutton Hill Road, Nashville, Tennessee
${ }^{2}$ Iom Daggy, Box 626, Davidson, North Carolina
Frank Davenport, 2514 So. 3rd Street, Ariington 4, Virginia
A. Page Davis, 109 Ramport Street, Bayside, Virginia

Howard DeNott, 902 N. 9th Street, Selinsgrove, Pennsylvania
Judith Doty, 214 W. Herman Ave., Dayton 5, Ohio
Allan Douglas, 951 Arbutus, Chico, California
Patrick Dunnigan, 2718 Brookmere Rd., Woodbrook, Rt. 4, Charlottesville, Va.
James Dvorak, 2004 Rose Ave., Knoxville 16, Tennessee
Barbara Elder, 208 S. Irving St., Arlington 4, Virginia
Frank Ferrier, 3707 Peachtree Road, N.E., Atlanta, Georgia
W. Eugene Foor, Demos Trailer Court, Route 181, Belchertown, Mass.

Billy E. Frye, 1440 E. Park Place, Ann Arbor, Michigan
William Mark Gares, Jr., 203 Locust Avenue, Hampton, Virginia
1 In Isidore Gersh, 7133 Greenwood Avenue, Chicago 19, Illinois Nusciesghel, Dept of anotery
Marie L. Gumieney, 97-26-72 Drive, Dorest Hills New York
$2 y$ Charles 0. Handley, Jr., 123 Woodlawn Ave., Falls Church, Virginia
James W. Hardin, 200 Furches Street, Raleigh, North Carolina
Kathleen Hess, Box 191, Dalton, Pennsylvania
V. Ruth Horsley, Wingina, Virginia

Gladys Hyncik, Dept. of Biology, University of Michigan, Dearborn Center, Dearborn, Mighigan
Harriet Jopson, 114 Broad Street, Bridgewater, Virginia
Carl Keener, 1121 Shenandoah Street, Harrisonburg, Virginia
P. Joseph Keller, 120 Pine Street, Lewisburg, Pennsylvania
J. P. Kennedy, 7943 Brays, Houston 25, Texas

Don Layman, P. O. Box 182, Somerset, Pennsylvania
Herb Layman, P.O. Box 182, Somerset, Pennsylvania
Malcolm P. Levin, 1707 Grady Avenue, Charlottesville, Virginia
LJey Lewis, 800 Rugby Rd., Charlottesville, Virginia
Ruby Little, 924 20th St. South, Arlington 2, Virginia
Reginald Manwell, Hoag Lane, Fayetteville, New York
Carole R. Nassart, 2904 Broad Street, N. W., Roanoke, Virginia
Paul F. Maycock, 107 Balfour Ave., Town of Mount Royal, Quebec, CANADA
Charles E. Miller, Dept. of Botany, University of Maine, Orono, Maine
Howard Miller, 28 Maple Street, Hartsdale, New York
Clare Newman, 234 West Frederick Street, Eox 363, Staunton, Virginia
$\checkmark$ John Norris, M. D., Dept. of Anatomy, Vanderbilt Univ. Med. Sch., Nashville 5, Tennessee
Anne B. Palmer, 303 Piez Ave., Newport News, Virginia
James R. Powell, 601 13th Street, Huntingdon, Pennsylvania
Wancy Price, 402 Hill Street., Batesburg, South Carolina
William H. Pritchett, Woodberry Forest, Virginia
Sheila Rector, 410 Patrick Street., Portsmouth, Virginia
James L. Riopel, 115 Mimosa Drive, Apt., Charlottesville, Virginia
Edward Ritter, 63 Spring Street, Metuchen, New Jersey

Nenry B. Robinson II, Box 8, Star Route, Portsmouth, Ohio Valorie Rood, 512 Lexington Avenue, Charlottesville, Virginia James Roth, 320 East Irving Avenue, Oshkosh, Wisconsin Marvin W. Scott, 349 Roxbury Street, Clifton Forge, Virginia Donald Simmons, Dept. of Biology, University of Va., Charlottesville, Ve. Judith F. Stokes, Box 205, Rt. 3, Manassas, Virginia Walter James Strength, 503 Craig Street, Norton, Virginia Katherine Taylor, P. O. Box 107, Tusculum, Tennessee Melson Trinkle, 606 Stonewall Street, Lexington, Virginia Allen Vinegar, 1565 Odell Street, New York 62, New York
2 Warren H. Wagner, Jr., 721 Mt. Pleasant Avenue, Ann Arbor, Michigan
Lucile Walton, 1116 Richmond Blvd., Danville, Virginia Dean P. Whittier, 910 Airport Road, Blacksburg, Virginia Cirginia Wrightnour, R. D. 非, Nicholson, Pennsylvania Raleigh Mason, 309 10th Street, N. W., Charlottesville, Virginia William F. Monroe, 1057 Page Street, Charlottesville, Virginia Curtis Woodfolk, 1114 Gordon Avenue, Charlottesville, Virginia John Lambert, Botany Dept., McGuill University, Montreal, CANADA

