**Herpetological Tall Tales**

by Joel Heinen

As a herpetologist in residence at UMBS over the years, I was asked to answer calls from the public on occasion.

A father on Van Road called about 20 years ago to say that a “frog or toad” climbed onto his sons’ basketball backboard, was staying put, and had turned white. I informed him that it was a gray tree frog, but he responded with emphasis: “No, it’s not gray, it’s white.” I then told him about the amazing color matching ability of tree frogs (near white to near black in 15 minutes or less and the ability to match to mottled bark), as well as their ability to conserve water while living high in trees, catch insects on the fly, etc., and his interests were further piqued.

I informed him that I would come, catch the frog and release it on Station property. He said that this was not necessary; he wanted the frog to live there so his sons could learn from it. He told the boys they could not play basketball so as not to disturb the frog.

One evening in the mid-1990s, I stopped at the convenience store across from Pellston Airport. On hearing I was from Bug Camp, the Mathematics Giant Had Personal and Professional Bug Camp Connections

by David M. Gates

The Station can take pride in one of its former camp kids and students, Andrew M. Gleason. Andrew became one of the greatest mathematicians in the world during the 20th century.

I had the great good fortune to know Andy well since we were camp kids at the same time. He was the son of Henry Allan Gleason, distinguished botanist and third UMBS director.

As camp kids about 1937, Andy and I would interrupt our swims by sitting on a raft tethered off shore, talking endlessly about whatever subjects were on our minds. Andy would talk about mathematics, and in particular, about what a wonderful tool calculus was, which he was taking in high school.

In 1940, Andy enrolled in Entomology and Ornithology classes for the summer, at the time being a Putnam Scholar in Mathematics at Yale University. I wrote in my journal August 17, 1940, at UMBS, “Andrew Gleason and I have spent a pleasant two weeks together. The other day we swam a mile and a half across the lake to Sedge Point. Andrew certainly knows his mathematics and has introduced me to a little matrix algebra. He is now a student of mathematics at Yale University and has won a
Hello Alumni, Friends and Neighbors of the Biological Station.

My stint as Acting Director of the Station is coming to an end. It’s wrapping up in the nick of time; with spring conditions arriving so early this year I can’t wait to get back into the field. And to begin thinking about my course at UMBS this summer.

The staff here in Ann Arbor and at the Station have made being Acting Director an easy job, and I am very grateful to them. We are indeed fortunate to have such exceptionally dedicated, skilled, and congenial people to work with!

We are anticipating another busy summer at Bug Camp. Spring and summer enrollment appears to be on track to match or even exceed last year’s. The Birds mini-course is already full (you should take a mini-course if you haven’t already). Many researchers are returning to continue their work.

This summer marks the final season for BART (Biosphere-Atmosphere Research and Training), our NSF-funded graduate research program. We are submitting a new proposal to NSF for an expanded program that would include an aquatic component in addition to the land-air ones under BART. We hope that the next newsletter will bear good news from NSF.

In July, the Station will undergo an external review. A team of reviewers will be on-site in July for a few days of meetings, tours and data collection. The goal of the review is to help us evaluate our progress and to assist us with planning for the future.

The next six months should see both cosmetic and substantive changes to the Station’s website. The College of LSA has been redesigning the look and navigation of the website, to make it more inviting and user friendly. Separate from the redesign, the site will also begin hosting a research gateway website developed by Kyle Kwaiser, our Information Manager. This will make it easier to access UMBS research, as well as visualize its overall diversity and distribution.

Finally, I wish to acknowledge several notable service anniversaries among our staff. This past summer marked Richard Spray’s 30th year on the maintenance crew and Bob Vande Kopple’s 30th year as Resident Biologist. Lisa Readmond celebrated 20 years with the UMBS in January. This longevity at the Station is invaluable to its smooth operation. Anyone who has been to UMBS knows that it could not run without the many talents and energies of these individuals and the other staff.

GLEON Membership allows Station to share aquatic data

by Kyle Kwaiser

The Biological Station’s decision to invest in the aquatics sensor network on the property is already beginning to pay dividends. In preparation for the deployment of an environmental monitoring buoy on Douglas Lake (see the Douglas Lake Report, Fall 2009) the Station has recently joined the Global Lakes Ecological Observatory Network (GLEON).

GLEON is a highly active, grass-roots network of limnologists, ecologists and informatics experts who are affiliated with institutions charged with monitoring the status

see GLEON, p. 7
Alumni Events Popular; Plan Now for Homecoming

Interest in the Ski Weekend was so high this year, it filled well before the deadline. This prompted the Station to open the dorm for two additional weekends, both of which had good turnouts.

Participants said they liked the new format, in which they brought and were responsible for preparing their own food. The weather cooperated and everyone enjoyed the winter weather on Douglas Lake.

If Ski Weekend is any measure, UMBS Homecoming Weekend will be another popular affair. Mark your calendars now (Oct. 15-17, 2010) and look for details in August.

Homecoming Weekend gives you an opportunity to enjoy northern Michigan’s fall colors in the company of fellow Bug Camp alumni and friends.

UMBS Green Computing wins honors

The Biological Station earned honors in Green IT Achievement from the U-M Climate Savers Computing Initiative (CSCI). CSCI recognized the Pellston campus at the bronze level and the Ann Arbor office at gold.

The rankings were based on answers to a green computing checklist. It included such things as using recycled-content printer/copier paper, using energy-saving settings on desktop computers, and using “smart strips,” power strips with a motion sensor that turn off computer peripherals (speakers, external drives, etc.) when not in use.

To recognize all units reaching gold level, CSCI will plant a tree on the Ann Arbor campus this spring.

Infrastructure Improvements

The power lines across camp are being moved underground. The first phase of the project – Upper Drive – was started in 2006 and has been completed. Currently, a crew is working on West State Street (Blissville).

LSA Facilities Manager Bill Weber was instrumental in securing LSA funding for the project. He says the college was motivated by “the safety of the students and staff. We have been concerned with the trees and branches coming down during storms and pulling the overhead lines down with them.”

Tony Sutterley, UMBS Facilities Manager, says the project also improves campus convenience and aesthetics. The current wiring was not sized for the Station’s present demands, such as widespread computer usage.

As the project progresses, everyone will benefit from a safer campus, more power availability, and better views of Douglas Lake.

Mini-Courses still enrolling

Don’t wait any longer to register for a Spring Mini-Course. Both Sustainable Urbanism and Forest and Landscape Ecology mini-courses still have room (sorry, Birds is full).

Mini-Courses run from June 16-20, 2010. Information and registration is available on our web site.

Come to July "Discovery Day"

As in past summers, UMBS will open its labs and trails to visitors on July 10, 2010. Guests will receive guided tours and be welcomed into select labs. The day will also feature a research presentation.

A schedule of Discovery Day activities will be available on the UMBS website in late June. Please make plans to stop by and bring family, friends and neighbors with you!
Graduate Fellowships Created in "Michigan Difference" Campaign

Two recent gifts to the Biological Station translate a love of the outdoors into funding for students studying northern Michigan’s ecosystems. Both donations established new endowments to support Graduate Student Research.

Marilyn McKenzie, a UMBS alumna, established the J.B. and Marilyn McKenzie Graduate Fellowship Fund. Marilyn attended the Biological Station in the late ’60s. She says, “If it hadn’t been for the Station, I wouldn’t have graduated. I owe a lot to UMBS.” Marilyn met her late husband, J.B., a former owner of Hoppies, while at the Station.

Marilyn had already written UMBS into her will when President Coleman issued the Donor Challenge for graduate student aid. That motivated Marilyn to establish a scholarship and receive the president’s match.

Joey Arbaugh honored her father by creating the Mort Neff Scholarship. Many readers will remember Mr. Neff as the producer and iconic voice of the “Michigan Outdoors” television program from 1951 to 1975. He was a “Michigan Man” who graduated with an AB from LSA in 1928. Joey has taken UMBS mini-courses and felt a gift to the Station would be an ideal tribute to her father’s passions.

Gleason, from p. 1

$1000 scholarship. At the age of eighteen he has already mastered the subject way beyond calculus. He will probably appear in the future as a genius of theoretical mathematics.”

Andy enjoyed an extremely successful career as a professor of mathematics (Hollis Professor of Mathematics and Natural Philosophy) at Harvard University after having done his graduate studies there. Following Andy’s passing in 2008, the American Mathematical Society assembled a memorial: "Andrew M. Gleason 1921-2008," published in Notices of the AMS, volume 26, number 10, November 2009, 1236-1276. I shall quote from this publication:

“Andrew M. Gleason was one of the quiet giants of the twentieth century mathematics, the consummate professor dedicated to scholarship, teaching and service in equal measure.” Andy’s remarkable achievements include: “Code breaking during the Second World War; his role in solving Hilbert’s Fifth Problem [ed. for which he received the Newcomb Cleveland Prize of the AAAS in 1952]; Gleason’s Theorem in quantum mechanics; mathematics education as a teacher, author, and reformer; and his service to the profession.”

Some of the statements about Andy by other mathematicians include the following: “He liked hard problems.” “Andy was seized by the problem with intense ferocity.” “Andy was unfailingly polite in addition to his amazing erudition.” “I can only echo what others have said about Andy’s luminous clarity and massive abstract power.”

Andy was president of the American Mathematical Society 1981-1982 and was elected to the National Academy of Science in 1966. Andy’s achievements in mathematics are truly huge and to physics in quantum mechanics, absolutely remarkable.

My wife Marian and I had the good fortune to be in Washington, D.C. for a year during World War II when Andy was working in the Navy for the cryptanalytic service. We met often at our apartment.

Andrew M. Gleason is recognized with distinction as a world class scientist, a truly great leader in his chosen field, and as a splendid person of sterling character. The Biological Station is honored to have had him as a student.

David M. Gates was UMBS director from 1971 to 1986.
2009 Donors
Thanks for Keeping "Bug Camp" Buzzing!

Eric & Cynthia Ahlfors
Mary Amick
Seth Ammerman
Richard & Sharon Anderson
Barbara Andreas
Joanne Arbaugh
Susan & Thomas Atkins
Laura Avery
Catherine Bach
Roger & Marilyn Bachmann
Lorine Barry
C W Bartholomai
Rosemarie Bauer
Neil Beach
Sandy Beadle
Gwen Bennett
Norman & Mary Jean Benson
Sandra Otto Berger
Carol Bershad
Joseph Bicknell
Jane Bishop
Martha Blake-Jacobson
Thomas & Carmel Borders
Thomassine Breher
William & Treva Breuch
Kathy & Jim Bricker
Jane Bridges
Nancy Brown
Frances Bull
Jack & Peggy Burch
Robin Bush
Charles & Catherine Busuito & Family
Eric Buth
John Cairns
Keith Camburn
Carl & Heather Chambers
Pete & Shari Clason
Kenneth Cochran
David & Carol Cole
Arthur Cooper
Peter Coyle
Irene Crum
Curtis Cummins
Lois Jotter Cutter

Three ways to give to UMBS:

Mail a check payable to UMBS, 2541 Chemistry Bldg.,
930 N. University, Ann Arbor, MI  48109-1055.
Call us (734-763-4461) with your credit card number.
Donate on-line at www.giving.umich.edu/give/.
A complete list of our funds and fund codes is available at
www.lsa.umich.edu/umbs/alumni/support/

David & Lynn Kirkpatrick
John Knott
Russell Kreis
Robert & Jennie Kuster
Joanne & James Lagger
Gina LaLiberte
Vincent Laporte
Diane Lauritsen
Howard Learner
Neil & Carolyn Leighton
David & Judy Levick
James Lombard
Cheryl Lyon-Jenness
Betty & Herb Maistelman
Christina March
Todd Marshall
Robert McCann
Megan McCulloch
Patricia McFadden
Marilyn McKenzie
Scott McNaught
Lawrence & Audrey Melichamp
Cynthia Meyers
Ann Miller
Norton Miller
Joyce V. & K. Darwin Murrell
Knute Nadelhoffer
Hugh Nelson
Jeffrey Newman
Mark & Ruth Paddock
Rita & James Paton
Timothy Pearce
Betty & Bob Peebles

Joan Pepper
Phyllis Phelps
Ronald Pilawowski
Jeffrey & Anne Pippen
Donna Plate
Michelle Plaxton-Bracci
Elizabeth Weaver Price
Sandra Rabinowitz
Richard Raham
Beverly Rathcke
Elizabeth Rodgers
Frank Ruddle
Ann Sakai
Robert Sanger
Robert Sarver
Samuel Scheiner
Susan Schlee-Socks
Robert Schoeller
Mary Crum Scholtens
Gail Schumann
Tom & Judy Schutt
Christine Schwarz
Allen & Donna Segrist
Nancy & Peter Sheldon
Nina Shishkoff
Peter A.S. & Mary Smith
Marilynn & Stan Smith
Elizabeth Sternheimer
Martha Stockard
Mary Stockard
Emily Swan
John & Mary Lou Tanton
Richard Tashian
Julia Thompson
Bill Thompson
Fred & Alyce Townsend
Dennis & Barbara Travis
John & Elizabeth Verhoeven
Clayton Waldorf
Nancy Walls
Mary Walsh
Carol & Paul Webb
Ralph Wheaton
Burne & Phyllis White
William White
Marshall Wied
Don & Kathleen Wieland
Brian Williams
Gussie Williams
Donald & Nancy Winegar
Larry Wolf
Woman's National Farm & Garden Association, Ann Arbor Branch
Jack Young
clerk looked quite concerned. He explained to me that a very unusual frog or toad had climbed a pole and perched itself by a light shining in the back parking lot. She asked me if it was possible for frogs and toads to mate with each other, for she was quite convinced that she had either a hybrid or a new life form living in the parking lot.

Of course, it was also a gray tree frog. It had found the perfect place to gorge itself on insects. I caught the frog for later release. Several local kids in the store were fascinated to the point that I could not leave for about a half an hour. They had so many questions!

It was amazing to me that a common animal seemed so exotic to so many, but tree frogs spend most of their lives high in trees and people rarely see them. Yet one can hear them call all over the place during springtime, if you care to listen and learn that call.

Despite the enlightenment and interest shown by the people in these anecdotes, many herps are reviled. About 15 years ago a woman in Pellston found a “rattlesnake” in her garage, killed it and brought it in. It was an Eastern Milk Snake and she was admonished gently. She said she had to kill it because it “rattled” its tail and therefore she was justified in her misidentification.

The distribution of the Massasauga Rattlesnake, Michigan’s only venomous snake, is spotty throughout its range. It is found in Presque Isle and southern Emmet Counties, and on Bois Blanc Island, but nowhere closer to UMBS to my knowledge. The small, shy and rare Massasauga can inflict a painful bite if you bother it, but, unlike its larger brethren in the genus *Crotalus* (timber and diamondback rattlers, etc.), it is virtually never fatal.

Some non-poisonous snakes vibrate their tails as a warning behavior, but none has rattles. So the beautiful milk snake, which, by the way, does not milk cows or drink milk (another common belief, for they are most common around barns, where they hunt mice), is in good company. Some harmless snakes mimic poisonous snakes through coloration, and the same species of milk snake found in Michigan is patterned much like deadly coral snakes where it occurs in the southern U.S. and Mexico.

People in Michigan also confuse the Eastern Hognose Snake for something quite sinister. In one panicked call to the UMBS office over 15 years ago, a man said he killed a “cobra” in his yard! From where people get these notions, one can only guess, for cobras are so Old World tropical. Even if one were released in northern Michigan, it would likely not survive fall, much less winter. The hognose is a wonderful bluff er. It will hiss, puff up, expand its neck (but not like a cobra), exude foul-smelling musk from its anal glands, strike (with mouth closed), writhe about, and then, in its grand finale, roll over and play dead.

I also get occasional calls about a “moccasin” or “copperhead” seen around water. I explain that they do not occur in Michigan and what the caller saw was a Northern Water Snake. Like the hognose and milk snake, they are non-poisonous. But, unlike either, they virtually always bite, so handle with care.

Calls have also come in on occasion about “nests” of snakes, usually in the spring or fall. In fact, all of our local species hibernate in
mixed species concentrations. The areas where they do so are called hibernacula and may be anywhere under the surface where the animals are protected from sub-freezing temperatures.

Hibernacula are mostly populated by garters, but depending on the area, the beautiful ringneck and green snakes and others can be found happily in hibernacula along with the more common garters. Both going into and coming out of them in fall and spring, many species mate. So these groups could be better referred to as mating swarms. In any case, hibernacula are not nests, and they should be respected.

A small hibernaculum is located on the far side of the boatwell. If you are at the Station in the springtime, and catch it on the right day, you may be able to see several garters, a few ringnecks and a water snake or two soaking up the sun to prepare for the coming summer. After nighttime frosts end in May, snakes disperse only to return in fall.

Herp myths and misperceptions abound. It would be wonderful if more students at Bug Camp studied their natural history. In its 100-year history, only seven of us have done dissertations in herpetology at UMBS. I was the last and mine was completed nearly 20 years ago.

Joel Heinen is an Associate Professor and Chair of Environmental Studies at Florida International University. He teaches General Ecology at the Biological Station.

GLEON, from p. 2

of one or several inland lakes. By constructing and contributing to multi-institutional databases, holding regular scientific conferences and facilitating the exchange of technical expertise through on-site consultations, GLEON and its members seek to increase the scale at which we can ask limnological questions.

Researchers and students who conduct aquatic research at the Biological Station will gain access to a wide network of potential collaborators through the semi-annual GLEON meetings. The next GLEON meeting will be held this May in Torres, Brazil.

Becoming an individual member of GLEON is free, encouraged and for students could lead to travel fellowships for GLEON meetings, funding for visits to other GLEON sites and other leadership opportunities within the organization.

Researchers in want of data will benefit from GLEON. More than a dozen member sites currently contribute data to GLEON hosted databases. Once the Douglas Lake buoy is online, UMBS will become the newest contributor.

Results from several cross-site studies conducted using these datasets were presented at the last GLEON meeting in Wisconsin and more are sure to come. Equipped with the wealth of historical and real-time contemporary data offered by the Biological Station, our researchers and students will be well-suited to make immediate contributions.
REFLECTIONS ON MY TIME AT THE UNIVERSITY OF MICHIGAN BIOLOGICAL STATION

I always considered it ironic that I regarded the three and a half summers I taught Plant Ecology at the Station to be the best teaching I ever did.

I say ironic because I had taught a similar course at NC State for the 9 years before I taught at the Station from 1967-69 and for half the summer of 1971 and it was NC State that generously allowed me to take summers off (with pay) to teach elsewhere.

It wasn’t that I tried harder to teach well at the Station. It was that the conditions at the Station allowed for a level of teaching, and learning, that just aren’t available during an academic year.

Being able to go directly from a lecture to the field to see and practice what was being taught, and to talk about it informally over lunch, made for a teaching experience simply unequalled elsewhere. Furthermore, everything about it was fun, and as any teacher knows, making the learning environment fun is an important key to successful teaching.

Arthur W. Cooper

In 1968 I attended the Biological Station to finish my B.S. degree in Biology and took a class from Professor Crum which I enjoyed. Educators like him deserve great credit for lighting and maintaining a torch of curiosity that can propel someone into a lifetime of learning.

Best regards,
Gary Raham
Author/Illustrator