

BULLFROGS CAN RECOGNIZE THEIR NEIGHBORS

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Those bullfrogs bellowing in your backyard aren't just hoarsing around.

New research reveals that male bullfrogs can distinguish calls made by their "neighbors" from those made by unfamiliar frogs. The calls, therefore, serve an important biological purpose, enabling the bullfrog to establish a territory, to invite females into that territory, and to warn other males to stay away or risk a wrestling match.

These findings, which offer the first evidence that amphibians recognize other individual bullfrogs via sound, are among the fascinating scientific results to be presented in Albany June 21-26 at the 67th annual meeting of the American Society of Ichthyologists and Herpetologists. One of the oldest scientific societies in the nation, the ASIH is the only one devoted to all of the cold-blooded vertebrates. This is the first time the society's meeting will be held in Albany.

More than 350 papers, from fish, reptile and amphibian experts specializing in ecology, animal behavior, physiology, morphology, molecular biology and taxonomy, will be presented at the international conference, sponsored by the University at Albany, State University of New York; Siena College; and the New York State Museum and Science Service. The conferees represent 18 foreign countries and are reporting on research performed in at least 25 different nations.

Besides the research on bullfrogs, other papers will deal with the subject of endangered species, particularly fish, and the effect of introduced species on species native to an ecosystem.

The latter topic is particularly relevant to Lake George, where a controversy has erupted over whether to introduce a new fish, called the grass carp, into the lake to control the weed population. The problem with introducing a new species like the carp is that it is typically vigorous, aggressive and lacking in natural predators. Thus, the new species acts like a weed in a garden, taking over and destroying the natural habitat.

Another series of papers at the conference will deal with shark biology, including behavior, and unusual reproductive behavior of some of New York state's fresh water fish, such as the brook silversides.

Scientists have found that these local fish display the same brilliant colors and fascinating behaviors as more exotic fish that inhabit tropical coral reefs. Among the papers dealing with the local fish are reports on internal fertilization, sex changes, and unisexuality that occur in species in the Northeast. One paper, for instance, will deal with internal fertilization in the brook silversides, a small fish which resembles a minnow.

Conference attendees will include distinguished ichthyologists and herpetologists from universities, major museums and other institutions all over the world. Eugenie Clark, a shark biologist whose work has appeared in many popular magazines, including National Geographic, is among those scheduled to attend.

All sessions, symposia and workshops will be presented at the New York State Museum, located in Empire State Plaza in downtown Albany. There will also be special exhibits and displays set up for the duration of the meetings.

The work on bullfrogs, to be presented by Mark S. Davis, a behavioral biologist from the University of Missouri in Columbia, Missouri, was done using speakers to broadcast the frogs' calls. The researcher recorded the sounds made by one male bullfrog and replaced that frog with a speaker. From the speaker was broadcast the original frog's voice or the voice of an unfamiliar frog.

The researcher then measured the frogs' responses to the original neighbor's call and

to the "strangers." Eight of nine males in the vicinity of the speaker bellowed more loudly when the speaker broadcast calls from a stranger than when the speaker broadcast calls from the original neighboring frog. (The intensity of the calls is measured using special sound instrumentaion.)

Dr. Margaret M. Stewart, Distinguished Teaching Professor in the University at Albany's Department of Biology and an organizer of the conference, noted that the bullfrogs' ability to recognize each other via sound is consistent with behavior demonstrated by birds and mammals, including human beings.

"As we go down the evolutionary ladder," says Dr. Stewart, "it is interesting to see that what we think of as complex behaviors are also typical of cold-blooded vertebrates."

One of the reasons for the interest in amphibians, she says, is that they are our ancestors. Amphibians, which evolved from fishes, later gave way to reptiles. From reptiles evolved birds and mammals.

"It isn't surprising that we find many similar threads of behavior throughout the vertebrates because they are closely related on an evolutionary scale," she said.

As with birds, the bullfrogs use their deep sounds to "establish a relationship with neighbors," Stewart says. She adds that they may also establish "a dominance hierarchy, or a pecking order," with the larger animal usually winning the contest. Once the frogs recognize each others' territory and rights, they generally don't invade each other's space and refrain from fighting.

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Contact: Sheila Mahan

THREE FROM CAPITAL DISTRICT HONORED BY UNIVERSITY DISABLED STUDENTS

Three Capital District residents were among those honored for their "outstanding contributions to people with disabilities" at the University at Albany's Disabled Student Services Awards ceremony.

The three are: Al Sacco of Albany, owner of Albany Custom Vans, who was honored for his help in customizing a van recently purchased to transport disabled students; Jim O'Connor of Schenectady, a rehabilitation counselor at the Menands Workshop and a program director at United Cerebral Palsy center in Schenectady, honored for his counseling and advocacy on behalf of disabled people; and Norbert Nathanson of Schenectady, now deputy public information officer for the New York State Department of Motor Vehicles, who was writer and executive producer of a documentary series about disabilities called All in a Lifetime, and numerous other filmstrips, videos and publications addressing the needs of deaf and other handicapped people.

Four University students who are disabled were honored for their academic achievements and contributions to campus life: Edward Stevens, a senior from Stuyvesant, Eric Schermerhorn, a junior from Schenectady, Francis Judge, a senior from Albany, and Melissa Horner, a senior from Watkins Glen.

Three campus employees were honored for their contributions on behalf of disabled students. They are Carol Anderson of Albany, assistant director of access services in the University Libraries; Barbara J. Palm of Albany, professor of physical education; and Carol Waterman of Guilderland, associate professor of psychology.

OLD FRIENDS AWAIT REUNION WITH MINERVA

On Sunday, June 7, at 11 a.m. in the University at Albany's main library, a century-old institution within this institution will make her return.

The plaster statue of Minerva, whose birth in the 1880s at what was then the Willett Street Normal School for Teachers remains a mystery, has been revitalized of chips and dents through contributions from University Alumni who date back as far as 80 years. Many will be on hand as part of Alumni Weekend '87, Friday through Sunday, to see Minerva anew.

Minerva was the sole structural survivor of the winter of 1905 fire that gutted the Willett Street school, her future saved by heroic janitor Charles Wurthman.

From there she moved with the student body to the new Draper Hall campus on Western Avenue, where she took up residence at the center of the college rotunda. "Meet me at Minerva" -- or "Meetcha at Minnie" -- was a saying many an alumnae recalls. Some recount Minerva's uprooting to the men's bathroom, or the day her lips bore a fresh coat of lipstick, or when her fingernails got painted -- and even the time she was left dribbling a stream of tobacco juice.

Yet there was respect throughout. In 1966, the Class of '67 became "the guardians of Minerva" and carefully eased her transfer, physically, to the new University campus uptown, where she maintained her vigil in the main library. After months of repairs in a private library room, she is ready for her public unveiling this Sunday.

The Minerva Fund brought an alumni response of more than \$4,000.

Contact: Mary Fiess or Brenda Oettinger

ROLAND SCHMITT, SENIOR VICE PRESIDENT AT GENERAL ELECTRIC,
TO OPEN UNIVERSITY'S SUMMER LECTURE SERIES AT WHITEFACE MOUNTAIN

Roland Schmitt, senior vice president and chief scientist at the General Electric Company, will discuss his recent tour of Antarctica in the opening presentation of this summer's lecture series at the Whiteface Mountain Field Station of the University at Albany. His talk begins at 8:30 p.m. on Tuesday, July 9.

Schmitt made his tour by plane, helicopter and icebreaker. He will show slides from the tour, as well as describe some of the scientific work underway there.

Schmitt's presentation and all the other lectures in this series will be held at the Whiteface Mountain Field Station located on Memorial Highway in Wilmington.

The popular Tuesday evening lectures, sponsored by the University's Atmospheric Sciences Research Center at the Whiteface facility, are organized by well-known meteorologist Ray Falconer. Featuring leading scientists and other experts on various topics, the lectures are free and open to the public. They begin promptly at 8:30 p.m.

Other scheduled lectures are:

July 14 -- "Restoration of Damaged Alpine Summits," by Edward Ketchledge, distinguished teaching professor emeritus at State University College of Environmental Science and Forestry.

July 21 -- "Origin of the Earth's Moon: The Latest Scientific Breakthrough - An Update," by John Delano, assistant professor in the Department of Geological Sciences at the University at Albany.

July 28 -- "Lake Country Album: A Multimedia Journal of Family Living in the Adirondack Lake Country," by David Johnson, aquatic ecologist and consultant on forestry planning and management.

August 4 -- "Peruvian Fisheries and El Nino," by Carl George, professor of biology at Union College.

August 11 -- "One Hundred and Fifty Years of the Adirondack Mountains - Commemorating the First Ascent of Mt. Marcy Aug. 5, 1936," by William Verner, director of the Schenectady Museum and Planetarium.

August 18 -- "Alaska and Adirondack Forests and Tundra," by Nancy Slack, professor of biology and plant ecologist at Russell Sage College.

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CORRECTION

ROLAND SCHMITT, SENIOR VICE PRESIDENT AT GENERAL ELECTRIC,
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June 22, 1987

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Contact: Brenda Oettinger

**KETCHLEDGE FEATURED IN SUMMER LECTURE
ATOP WHITEFACE MOUNTAIN**

Edward Ketchledge, a distinguished teaching professor emeritus at the State University of New York College of Environmental Science and Forestry, will talk about efforts to restore damaged alpine summits in the Adirondacks at the next Science Lecture in the summertime series sponsored by the Atmospheric Sciences Research Center of the University at Albany, State University of New York.

A plant ecologist who specializes in the vegetation of the Adirondack region and Canada, Ketchledge will focus on ways to revive trampled areas on Adirondack summits during his talk at ASRC's Whiteface Mountain Field Station, which will begin promptly at 8:30 p.m. on Tuesday, July 14. The Field Station is located about midway up the almost 5,000-foot high peak, just off the Memorial Highway in Wilmington, N.Y.

Ketchledge's presentation is the second in a series of seven free, weekly lectures offered Tuesday evenings in July and August at Whiteface Mountain. In addition, just prior to each featured speaker, the latest weather is discussed based on hourly data from the National Weather Service and color projections.

Beginning its 26th year, the summertime Science Lectures have once again been organized by well-known area meteorologist Ray Falconer. Donations to help sustain the series may be made to the University at Albany Fund, Attention: Falconer Fund.

June 24, 1987

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Contact: Brenda Oettinger

UNIVERSITY AT ALBANY STUDENTS
AWARDED ROTC SCHOLARSHIPS

Two students at the University at Albany, State University of New York, have been awarded three-year, full-tuition, Army ROTC scholarships based on their academic achievements and extra curricular activities. Thomas J. Baker III and Charles N. Demaso will receive an allowance for textbooks and a monthly stipend in addition to payment of their tuition for three remaining years of study.

Baker, a history major, is a Yonkers native whose family currently resides in Belgium where his father, Lieutenant Colonel Thomas J. Baker Jr., is assigned to NATO headquarters. Demaso, also a history major, lives with his family in Maspeth, N.Y. Both will become members of the Army ROTC cadet company at Albany in September.

In addition to scholarship opportunities, students in the ROTC program can develop leadership skills, gain management experience, participate in adventure training, and enhance their job marketability as they earn commissions as Second Lieutenants in the active Army, Reserves, or the National Guard. Currently, about 35 University at Albany students are participating in the ROTC program on campus.

For further details about the ROTC program contact Captain Ed Rouse at (518)438-2010.

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