

# THE NICHE

The Student-Faculty Newsletter of The Department of Biology  
The College of William & Mary

Volume 2, Number 1

October 18, 1989

## ECOLOGY 311 GUARANTEED TO SENIOR MAJORS WHO NEED IT THIS SPRING

All seniors who need to take Ecology 311 this Spring are guaranteed enrollment. Please see the Chairman, Room 104, if there are any questions about this. Every rising senior who registered for this Fall's Ecology class last Spring and indicated it as either first or second priority should have been enrolled. We even increased the number in the class to accommodate everyone. THE REGISTRAR'S OFFICE SOMEHOW FAILED TO FOLLOW OUR INSTRUCTIONS. There is a new Registrar now and we have his assurance that we will be permitted to hand register those who need Ecology in the Spring if it is necessary to do so to insure their enrollment.

The Department wants to thank all of you who were unfairly bumped from Ecology this Fall for your patience and understanding.

## NICHE Begins Second Year

Welcome to the second year of THE NICHE, the Student-Faculty newsletter of the Biology Department. In a large community like ours it is often difficult to get information to everyone in a timely manner. We need to know what you are interested in --information about job availability, graduate schools, professors, classes, research opportunities in the department, general interest stories about biology? Tell us what you want.

THE NICHE is mailed to all Biology Majors (address labels come from the Registrar's Office). If you are not on the mailing list, but want to be, give us your address. To contact us, write THE NICHE, Department of Biology --or you can drop notes off directly in THE NICHE mailbox in Millington Room 118.

Student Editors:

*Dave Haworth, Elise Hughes, Bruce Koplan*

**New Biology  
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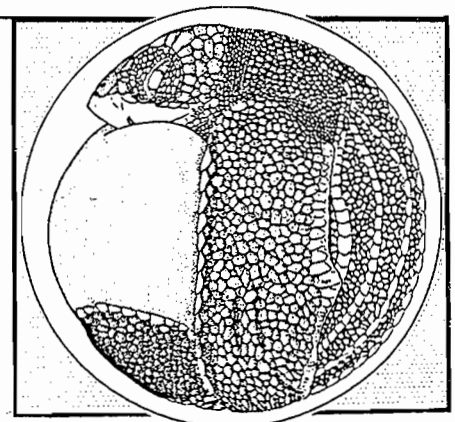
## Clayton-Grimes Biology Club Plans Fall Activities

The 1989-1990 Clayton-Grimes Biology Club has started off with a bang. The club now has the highest membership in years and with increased funds, will be able to do more than ever. Already, the club has sponsored two weekend activities: a nature walk led by Jamie Doyle on Sept. 9, and a lake Matoaka canoe trip on Sept. 16. Many more weekend activities are planned, including an upcoming herpetology walk as well as a trip to VIMS. Conservation and educational programs will be an important part of the club this year as well as working with the club's philanthropy, the Wildlife Center of Virginia. The club also hopes to organize a few camping trips this year, and plans an overnight trip in the College Woods October 20-21. Information about the club, including a calendar of events, is on the bulletin board just outside Millington Hall 117. The Biology Club meets every Tuesday (except the third one of the month) at 7:30 p.m. in Millington 117.

## Biology Majors Form Campus Conservation Coalition

The top officers of the Clayton-Grimes Biology Club, Outdoors Club, and Recycling Club, all of whom are biology majors, have joined forces to found the Campus Conservation Coalition. It is the Coalition's hope that groups with diverse interests, as well as individuals from all majors, will become involved. This semester CCC will sponsor Project Rainforest which will include educational programs, letter writing

campaigns, and fund raising activities so that rainforest lands may be purchased. Next semester a second annual environmental awareness Week and Earth Day will be held, including speakers from across the country. **The Conservation Coalition meets every Thursday at 7:30 p.m. in Millington 117. For more information contact Jamie Doyle at 220-6611 or in Millington 206.**



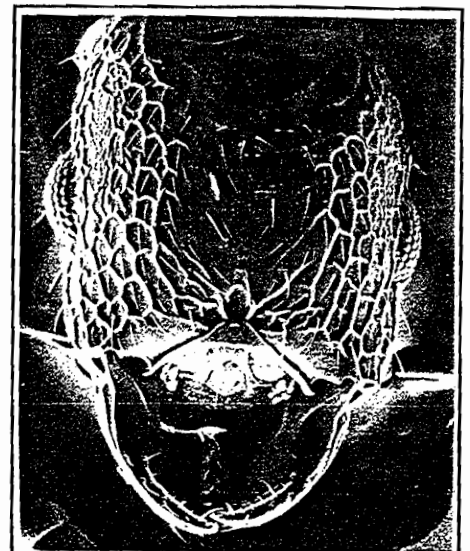
## FACULTY NEWS

- In August, **Gustav W. Hall**, in company with a group of British naturalists, visited an orangutan preserve and the cloud-forests of Mt. Kinabalu, Borneo, and also Tamana Negara, Malaya, the largest remaining lowland rain-forest in Southeast Asia. A research paper on the genetics of the Tule Tree of Oaxaca, Mexico, more or less the largest diameter tree in the world, co authored with former students **George Diggs** and **Douglas Soltis**, has been accepted for publication in *Madrono*.
- This summer **Dr. Scott** and his technician, **Bill Saunders**, traveled to California where they collected several species of calcified red algae (corallines) for future studies of cell division, developmental morphology and cell wall analysis. Some of this work will involve collaboration with colleagues at George Mason University in Virginia and the University of California at Santa Cruz.
- Dr. Scott also attended a meeting at the University of Toronto where a poster was presented entitled "Spermatial appendages of *Spyridia filamentosa*," authored by J. Scott, **S. Broadwater** (William and Mary visiting assistant professor of Biology) and J. West (U.C. Berkeley).
- Scott and Broadwater also published an article entitled "Ultrastructure of Vegetative organization and cell division in the freshwater red alga *Compsopogon coeruleus* (Rhodophyta)" in *Protoplasma*.
- **Dr. Wiseman** spent three weeks traveling with his ten-year-old daughter to the Olympic Peninsula and rain forest in Washington State and back, via the Badlands, Tetons, Glacier, Mount Ranier, Columbia River Gorge, Utah's Canyonlands, Colorado's Rockies, Boulder, and Ohio.
- This summer, **Professor Terman** worked on a grant from the Jeffress Foundation entitled: "A study of socially induced contraception: clarification of mechanisms and stimuli". This focuses on the reproductive inhibition of young mice (*Peromyscus*).
- For 62 days, **Dr. Carl Vermeulen** got daily isolates of *E. Coli* from babies on the Caribbean Island of St. Thomas for the first of several summers in a project under the aegis of the World Health Organization dealing with infant diarrhea in the Third World. The St. Thomas collection of 6000+ isolates were the negative control as no serious diarrhea is found there, yet only 300 hundred miles away on Grenada 30% of the babies die in their first year. He

## DEPARTMENTAL SEMINAR SCHEDULE

Everyone is invited to the Departmental Seminar Series. Topics of interest to students of biology are presented by visiting scientists and by our own faculty on *Friday afternoons at 4 PM* in Millington Room 117. Refreshments are served before each seminar at 3:30 in the Departmental Library/Reading Room (112) by the Biology Club. This is a good time for students to talk with the seminar speaker.

- **October 20:** **Dr. Schwaner**, *South Australian Museum*, will discuss the evolution of Tiger Snakes in Australia.
- **October 27:** **Dr. O'Neill**, *Beltsville Agricultural Research Center*, talks about laboratory work on important crop plants.
- **November 3:** **Dr. Coursen**, *one of our own*, will discuss the work he and his students have been doing on fungal aging.



Millington Greenhouse ant's head (X58) from behind: SEM

was assisted by a technician on loan from WHO, and by a series of current and former students: **Gretchen Rask**, **Robb Vaccoro**, **Patricia Grady**, **Peter Coutlakis**, and **John Painter**. Does anyone want to go and help on Grenada for a couple of weeks next summer?

- Professor **Eric Bradley** spent the summer working with **Paul Hogg** and **Holly LaVoie** as they finished their Master's thesis research. He also supervised the research of **Laura Taber** as she worked on an interdisciplinary Wilson Fellowship investigating thyroid histology. Professor Bradley also worked on a research manuscript for publication.
- During this past summer **S. Ware** spent some time in Mississippi sampling forest stands for a forthcoming chapter in a book on vegetation of the southeastern United States, and completed manuscripts for five articles, three of which have William and Mary Biology alumni as co-authors. These alumni are **John D. Farrell**, **Rick T. Rheinhardt**, and **Gary L. Pinion**.
- A scientific paper on predator-prey size relations in three species of lizards from Sonora, Mexico, by **G.R. Brooks** and **J.C. Mitchell** was published in *The Southwest Naturalist*.

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## Howard Hughes Medical Institute Awards \$1 Million: Department Begins Nationwide Search

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The Department is beginning a nationwide search to fill a new tenure-track position in Molecular Biology. This position will be funded initially through the \$1 million Howard Hughes Medical Institute Grant awarded for programs in the Biological Sciences at William and Mary (see enclosed reprint of William and Mary News article on the grant). The Hughes Program lasts five years and will include, among other things, summer research money for William and Mary Biology and Chemistry majors (details to be announced later), a Biological Chemistry seminar series, and minority and secondary school outreach programs.

### SCANNING ELECTRON MICROSCOPE INSTALLED ON SECOND FLOOR

Over the summer the Department added a new scanning electron microscope and various other pieces of equipment purchased through a special fund established by the Commonwealth of Virginia to improve university scientific instrumentation.

## STUDENTS ASSIST IN COLONIAL BIRD INVESTIGATIONS

Each spring a crew of undergraduate and graduate biology students assist in implementation of management recommendations for the protection and preservation of the nesting habitat of least terns, black skimmers and common terns. The Colonial bird investigations continued this spring and summer directed by Professor Ruth Beck. Censuses were conducted by aerial survey to locate colonies. Colonial species nesting on Virginia barrier islands, salt marshes, and bay islands of the Chesapeake Bay were checked to determine population numbers and population shifts. Colonial bird colonies on the western shore were also censused. A number of these colonies occur in urban environments or on man-created habitats. The major species involved in these unique environments are great egrets, least terns, black skimmers, common terns and yellow-crowned night herons.

In 1989, the south end of the Hampton Roads Tunnel housed one of the largest common tern colonies in Virginia. The number of adult common terns was 2,580 individuals. At least one third of Virginia's common tern population is found here. A grant from the Virginia Department of Game and Inland Fisheries and additional funding from the Nature Conservancy are providing support to continue this study.

# William and Mary

## NEWS

A WEEKLY NEWSPAPER PUBLISHED FOR AND ABOUT THE FACULTY, STUDENTS AND STAFF OF THE COLLEGE OF WILLIAM AND MARY

Volume XVIII, Number 33

Wednesday, June 7, 1989

## \$1 million Hughes Institute award funds biological sciences program

The College has been awarded a \$1 million grant from the Howard-Hughes Medical Institute for undergraduate education in the biological sciences. The grant, the largest of its kind ever awarded to the College, will help underwrite a five-year science initiative.

Lawrence Wiseman, chairman of the biology department and director of the project, said that the grant was significant because of the intense competition for the money.

The program, to be known as the Howard Hughes Medical Institute Undergraduate Biological Sciences Education Initiative, will be administered by a seven-member board of faculty and administrators of the College. Members of the board will include Wiseman; David J. Lutzer, dean, faculty of arts and sciences; Clyde A. Haulman, dean of undergraduate studies; David W. Thompson, Chancellor Professor of Chemistry and chairman of the department; Carroll F. S. Hardy, associate dean of student affairs-minority affairs; Joyce Van Tassel-Baska, Jody and Layton Smith Professor of Education and director of the gifted learners program; and Ronald N. Giese, professor of science education.

"William and Mary was competing with 100 major research universities which Hughes invited to submit proposals," said Wiseman. "The invitations were based on strong programs in biological and supporting sciences, particularly on getting students into graduate and medical schools. Our proven track record in this area served us well."

The award to William and Mary was one of 51 grants totaling \$61 million given by the Hughes Foundation to enhance undergraduate science education. President Paul Verkuil said the Hughes award could not have come at a better time. "As William and Mary begins its Campaign for the Fourth Century with the sciences as a major academic priority, we are grateful to have this recognition of our efforts and our vision for the future," he said.

Wiseman, principal author of the grant proposal, said the William and Mary program has three major initiatives.

First, the College will begin developing a

strong biological chemistry program. This will include renewed cooperation between the biology and chemistry departments and the appointment of a biological chemist in chemistry and a molecular biologist in biology. Although the two new faculty members will be based in different departments, Wiseman said that they will be hired with significant cooperation and collaboration in mind.

In addition, the program will include interaction between William and Mary scientists and the School of Education faculty to develop improved science instruction methods at the pre-collegiate level. Hughes reviewers of the College's proposal said the plans to develop science courses for college students preparing to become elementary school teachers were "innovative."

A third major goal is to begin significant efforts

to recruit more minority students to the study and profession of science.

Wiseman said students who want to take advantage of the new program will likely be working toward careers in basic research, clinical research, teaching or medicine.

"The Hughes Medical Institute is primarily interested in basic biomedical research and education. They are interested in both basic research—especially in the areas of cell biology, genetics, immunology, neuroscience and structural biology—and application of new knowledge to clinical treatment," said Wiseman.

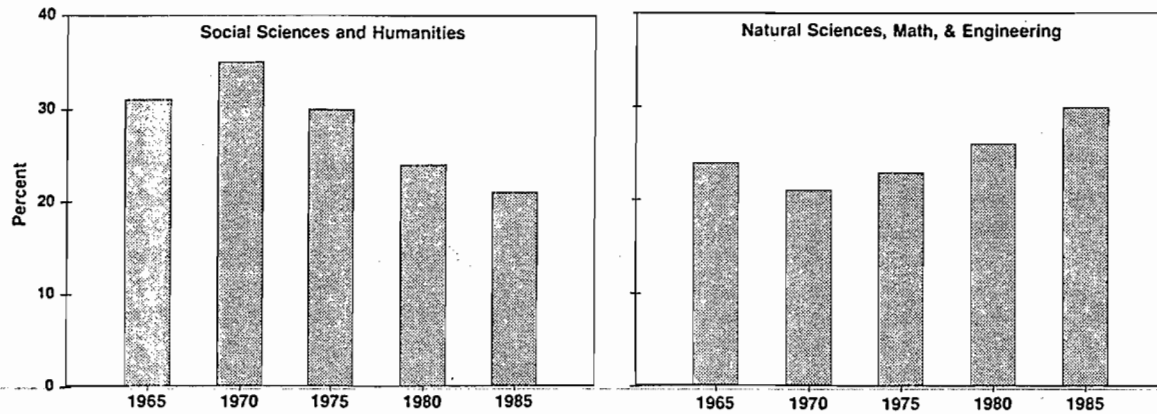
"Recently, they have also committed substantial support to undergraduate and pre-collegiate education in biology and the related sciences of chemistry and physics."



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Proportion of Bachelor's Degrees, Nationwide, by Major Academic Area, 1965-85

Source: Department of Education, *Digest of Education Statistics*, various years

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TO: