



# THE NICHE

Department of Biology Student-Faculty-Alumni Newsletter

Volume 6, Number 2

College of William and Mary

January 1994

## W&M's New Curriculum To Pack Students Into Bio Classes

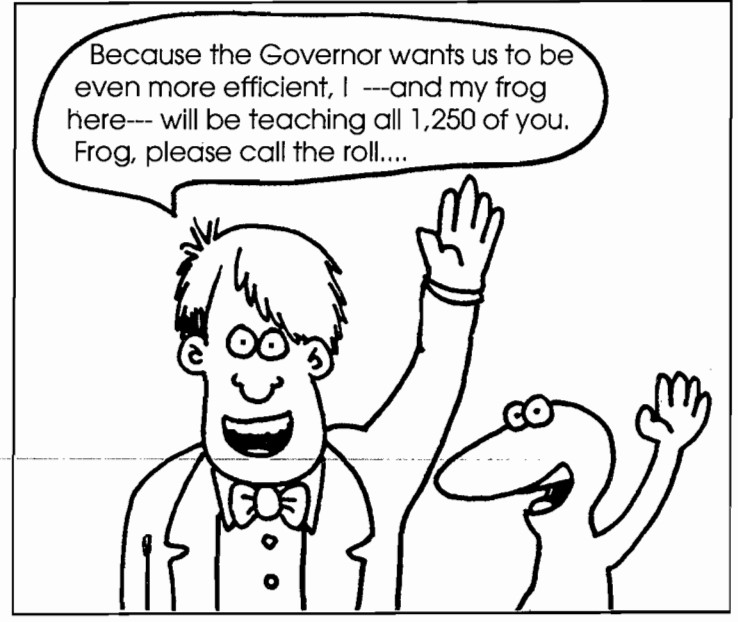
### Every Student Will Have to Take Biology!

Already enrolling 600 entering Freshmen in first-semester Biology courses, the Department can expect even more once the College's new curriculum is fully implemented. Last year the Faculty of Arts and Sciences changed the undergraduate curriculum to include a Biological Sciences requirement for all students. They will also have to take at least one laboratory, but can choose from either Biological or Physical Sciences (i.e., Chemistry, Geology, or Physics).



The details and timing of implementation are being developed by the all-college Educational Policy Committee with assistance from a number of temporary faculty committees appointed to assist in each of the General Education Requirement areas (Biology Professor Stan Hoegerman is a member of the Science subcommittee). Current students will not be affected.

Although some students may fulfill their science requirements other than by taking courses (e.g., Advanced Placement examinations or maybe even special tests developed at the College), the new requirements will put significant strain on the Department of Biology. Entering classes are generally about 1,250 students --and every single one of them will have to satisfy the Biological Sciences requirement for graduation. *(continued next page, More Non-Majors)*



## CD-ROM Biological Literature Search System Up and Running in Library

### Made Possible by Generous Biology Grads

by Meghan Davis

Even Swem can still deliver some things on a silver platter. However, most students won't see the silver platters that provide access to abstracts from over 5,500 periodicals in the Cambridge Life Sciences Index. They are CDs, the software components (acquired from Silver Platter and other companies) of a new computer system that came on-line at 1:00 pm on October 3 and revolutionized the way William and Mary students conduct research.

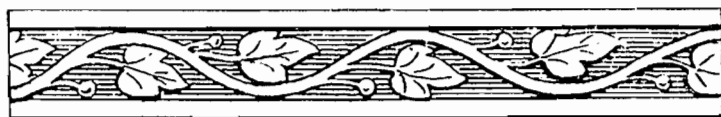
Gone are the days of spending weeks poring over Swem's hard-copy abstract collections in pursuit of the missing links for a research paper. The three CD-ROM towers that house databases for nine fields, from American history to Sociology, can transmit such information to the four terminals in Swem's reference collection in a matter of seconds.

The Cambridge Life Sciences index, one of the databases stored in the CD-ROM towers, is a special boon to biology students. Dr. Norman Fashing, who analyzed the library skills of biology students during the last self-study conducted by the college, recognized the need for an improved reference system. He remembers telling the self-study committee that "we don't have the facilities for a modern search. All we have are the old hard copies of bio abstracts....you could spend a month trying to track down literature." And a month was not all you might spend. For faculty and students who obtained permission from the department, there was a way to get around the limited resources at Swem. They could use a computer telnet system to patch into Biosis, a computer database in San Diego. But, due to the fees involved, one link to Biosis might cost as much as \$100. *(continued next page, CD-ROM Searches)*

## New Phi Beta Kappa Members

Congratulations to Biology's new Phi Beta Kappa members. As usual, the Department's students were well represented in the new group: although Biologists make up just 10% of the senior class, they make up 25% of new PBK members.

- Erin Kathleen Beatty, Tina Marie Bongiorno,
- Matthew Roy Campbell, Victoria Regina Currall,
- Anna Kathryn Finley, Elizabeth Carolyn Hollis,
- Jennifer Marion Jolly, Karyn Beth Kolman,
- Richard Jeffrey Mansfield, Amy Margaret Thompson



## CD-ROM Searches *(continued from page 1)*

In response to Fashing's complaints about the poor quality of research materials available, the Dean advised the biology department to obtain a database like Biosis. Fashing convinced the rest of the department that Compact Cambridge offered the best database within budget by passing around their catalogs and instructing his colleagues to look up journals they wouldn't expect to find in an index of this sort. "I didn't have anybody who said they didn't find the journal they were looking for," Fashing recalls.

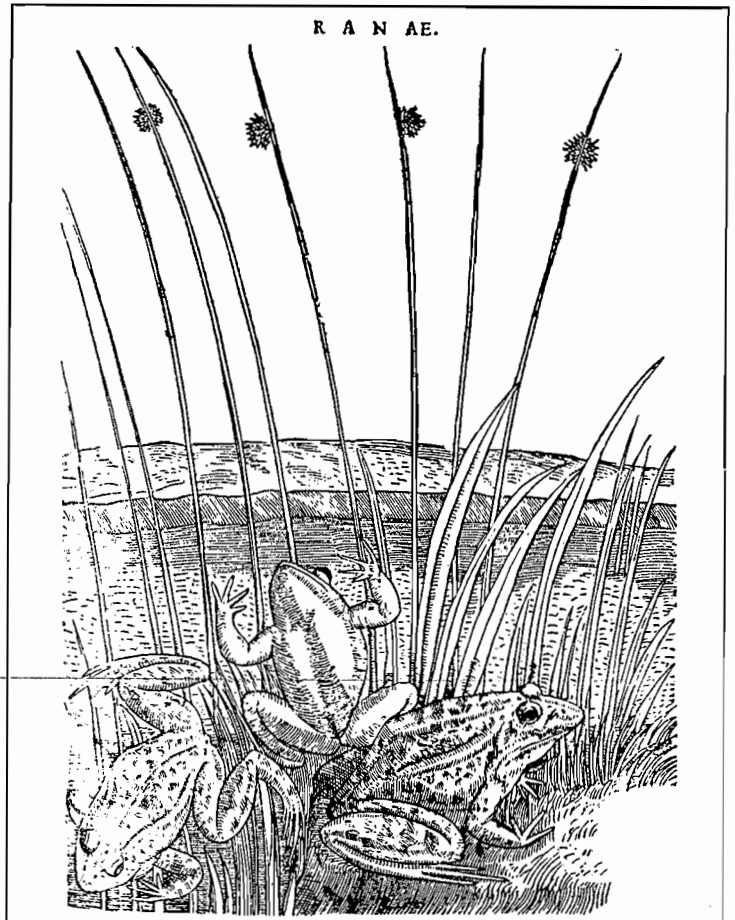
But finding a good database was the easy part. The hard part has been money. Fashing predicts that an entirely new system, one with a larger database, will replace this one in a few years. "This is not the most efficient way to handle this, but right now, with money and various constraints, it's what you can do." Swem has cut costs by doing all of the technical installation work in-house. However, even the techs couldn't solve the biggest problem facing the system: power. Mack Lundy, Systems Manager for Swem, points to the inadequate wiring of the library. To improve the power supply to the system, the entire wiring system of the library would have to be replaced. Right now, William and Mary doesn't have the funds to renovate Swem.

Budget constraints may affect other areas later this semester. The Biology Department only bought a license to use Cambridge Life Sciences that allows up to eight users on this particular database at a time. Although there are only 4 terminals currently linked to the CD-ROM towers, Lundy plans to hook the databases into the ethernet backbone of the campus, allowing access into Silverplatter CD-ROM from computer labs across campus to access Swem's system. But the system is already popular, and it's about to be flooded with users.

**Instructor Nora Bennett** used the new system last semester in Biology 203 laboratories in a project designed to rectify the problem that Fashing noted five years ago. By exposing students to the tools of research (such as doing a literature search) early on in their William and Mary careers, Bennett gave introductory students a glimpse of what a career in science entails.

She was a little concerned about the delay in starting the system, which was originally scheduled to be up by the end of August. Technical difficulties and supplier delays caused the postponement. These delays forced Bennett to scale-down her original project concept. Instead of continuing one research project through both phases of literature research and in-lab research, the students did the laboratory project first, and then conducted a literature-search on a topic of their choice. Despite the change of plans, Bennett believes that her students developed some of the library skills needed for a career in science.

The CD-ROM system for Biology was made possible by the generous contributions of alumnae/i **NICHE** readers to honor **Professors Black, Brooks, Byrd, and Hall** upon their retirements two years ago. These donations were added to other departmental funds for a total of \$15,000. Without our former students' support and **Professor Fashing's** careful and diligent research and interaction with Swem Library staff, the Department could not have purchased this important addition. Thank you!

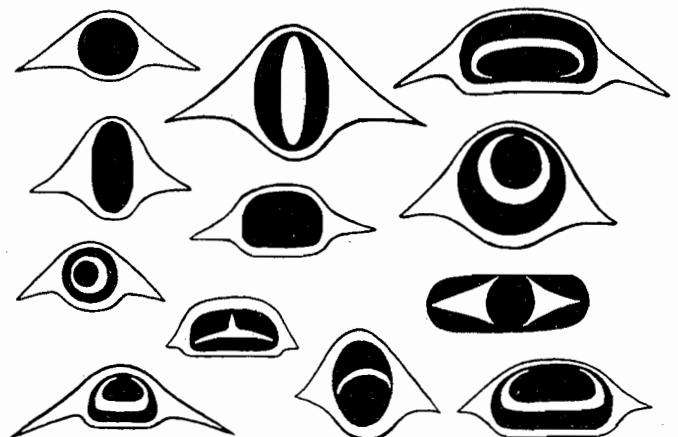


## More Non-Majors *(continued from page 1)*

The combined enrollment for the major and non-major courses has remained at about 600, or approximately half the entering class. Even if several hundred students each year "place out" of introductory biology courses, the Department will still have to accommodate 300-500 additional students. This will put a tremendous strain on faculty, space, and limited resources.

Although Biology faculty members almost unanimously support requiring Biological Sciences in this "Age of Biology," most of them worry that the resources will not be there to do the job right. The Commonwealth of Virginia has decreased support for higher education the past few years and the future does not look any better. In fact, the Governor's proposed budget calls for decreased funding to William and Mary over the next two years.

The next several years should be interesting times for higher education in Virginia. Everyone will be challenged to do more with less.



# The Clayton-Grimes Biology Club: Who Are Those Guys?

by Natalie Weber

It is frequent that one runs into Clayton-Grimes Biology Club members who are studying some form of zoology or ecology, yet isn't it somehow ironic that the club's namesakes are two recognized botanists and plant taxonomists who are little known by most students. **John Clayton** and **Earl Jerome Grimes** both have interesting histories pertaining to Virginia; Clayton has a connection with the state and Grimes was a professor at the College of William and Mary. Although one may be more famous than the other, both of these botanists contributed to their field beyond normal expectations.

**John Clayton** was an avid English botanist and plant taxonomist, and should not be confused with the Reverend John Clayton who also, strangely enough, was connected to Virginia and medicinal plants. Clayton was born in 1694, in Middlesex, England of John and Lucy Clayton. He first came to Williamsburg in 1715 when he was 22 years old. It was not surprising that he travelled to Virginia, considering his father's long history of serving in diplomatic positions as well as being a member of the College. Clayton, the younger, is said to have settled in Gloucester County, VA and served as Clerk of the County Court from 1720 to 1773.

Not long after, he married Elizabeth Whiting and settled on a 450 acre plantation near the Piankatank River in Gloucester County. However, little is known about the plantation's exact whereabouts. It is during his residence on the plantation in Gloucester County that Clayton collected his specimens for his renowned Botanical Edition *Flora Virginica* published with Jan Frederick Gronovius. Not surprisingly, he also worked closely with the renowned plant taxonomist, Carl Linnaeus, and was a contemporary of the scientist Benjamin Franklin. In 1743, Franklin selected Clayton to be a member of the American Philosophical Society, a society which was intended to parallel the famous Royal Society of London. Four years later, Clayton was also elected to the Swedish Royal Academy of Sciences. He continued to collect Virginia flora, finding new and uncatalogued species until his death on December 15, 1773. His herbarium specimens can still be found today, preserved in the Clayton Herbarium of the British Museum.

The history of Earl Jerome Grimes is somewhat less known. Grimes was an Associate Professor of Botany here at the College. Before his work at William and Mary, Grimes studied at the University of Illinois, as well as the Imperial College of the University of London. He held numerous jobs, including a position as a scientific assistant at the Bureau of Soils of the National Department of Agriculture and a position as an assistant state geologist in Indiana. During his two short years as professor of the College, he extensively and thoroughly botanized the local area with his wife, Eileen Whitehead Erlanson. His study areas included the College Woods and the area along the peninsula from Newport News to Henrico County and he often hopped on local trains to get to his collection areas. Sadly, his botanical studies were abruptly ended when he died in December 15, 1921 of an acute case of appendicitis. His wife continued his studies of the area and sent his herbarium specimens to the Gray Herbarium of the New York Botanical Garden. Grimes was sadly missed by students and faculty alike.

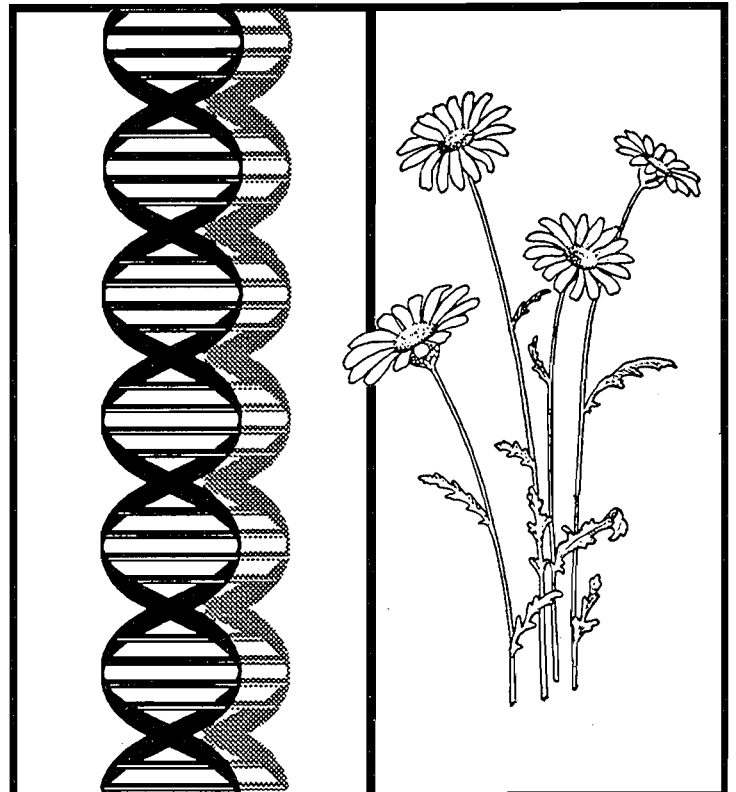
The Biology Club meets Tuesday's at 7:30 PM in Millington Room 117. The Club's Announcement Board right outside the door tells what's going on. Last semester's activities included field trips, a slide show on Australia, the annual Halloween "Autopsy Film," and other lectures and discussions. Everyone is invited! Why not come out and join your student colleagues.

## Phi Sigma Undergraduate Research Grants Presented to Yanni and Joubin

**Leanne Marie Yanni** and **Katherine Joubin** were each named recipients of a Phi Sigma Undergraduate Research Grant. The award, given by the Biology Honorary Society, is to be used to help offset research expenses incurred by students while working on research under the direction of Department of Biology faculty. Selection was based upon overall academic accomplishment, as well as upon the merit of the proposed research.

Consideration was especially given to how the proposed studies integrate different aspects of biology, especially molecular and cellular with organismal approaches. Last Spring at Phi Sigma's induction ceremony, outgoing Biology Chair **Larry Wiseman** presented a check to the Honor Society and challenged the group to use the money "to show how organismal and cellular/molecular biology depend upon one another, to emphasize the similarities and not the differences in our experimental approaches to understanding life...." The group decided this kind of research support was the best way to use the money.

For undergraduate students interested in the qualifications for selection to the Phi Sigma Honorary Society in Biology and the activities of the group, contact **Professor Sharon Broadwater**, Chair of the Department's Undergraduate Research Committee.



Last semester "they" drained Crim Dell. We sent our trusty **NICHE** reporters to find out why. The answer? It depends upon who was asked.

## The Top Ten Reasons for Draining Crim Dell

10. To force the ducks to go somewhere else.
9. To turn it into a heated swimming pool for required Kinesiology activity classes.
8. So William and Mary would have a beach to use for recruiting new students from Nevada.
7. To bottle the water and sell it to tourists as a Colonial American soft drink and elixir.
6. They were looking for Bacon's vault again....
5. Geology Professor Johnson accidentally pulled the plug while looking for a whale fossil.
4. To build an intramural mud wrestling pit for the new student center.
3. To fill it in and build a new addition to Millington to solve our very serious space problems.
2. To alleviate campus parking chaos with an underwater parking garage.
1. So W&M could make *U.S. News and World Report's* "10 Most Impressive Mud Holes For A National Research Institution."

## Win A William and Mary Biology Department T-Shirt

1. Top Ten Reasons Dogs Are Smarter Than Cats
2. Top Ten Reasons Cats Are Smarter Than Dogs

Each issue **THE NICHE**, borrowing from a once humorous television personality, publishes a Top Ten List. For the next issue (due out before Spring Break in mid-March) we want our readers to create two **really funny** Top Ten lists for us.

Send us a whole list or more, or even a single reason for one or both lists: (1) The Top Ten Reasons Dogs Are Smarter Than Cats, and (2) The Top Ten Reasons Cats Are Smarter Than Dogs.

**THE NICHE** staff will compile what we think are The Top Ten reasons for each list from all entries and the funniest/best number one reason will win a William and Mary coat of arms Biology Department T-shirt (logo shown below in miniature).

If no one enters, **THE NICHE** will make up its own list and sell the T-Shirt to make enough money to take a trip to Florida for Spring Break. Everyone is invited to enter --current and

former students, faculty, dogs, cats, frogs, even administrators....

All entries become the property of **THE NICHE** and cannot be used to ridicule entrants. Names of entrants whose reasons are published will be listed unless they are afraid and willing to say so.

Send entries to:  
**NICHE TOP TEN**  
c/o L. Wiseman  
Biology Department  
Williamsburg, VA  
23187

BIOLOGY



WILLIAM  
& MARY

## Alumnae/i Support Needed To Keep THE NICHE In Production

**THE NICHE** is sent free to all Biology undergraduate and graduate students, prospective Biology majors at the College before they have enough credit hours to declare a major, Biology faculty and other faculty and administrators interested in the newsletter, and recent graduates their first year out who have given us their addresses. All Biology alumnae/i who have expressed an interest in the newsletter also receive copies (nearly 500 grads!). Most of these "subscribers" have sent us \$10 annually to cover postage and production costs. We appreciate this support very much. Without it we could not continue such a wide distribution (about 1,500 copies/issue).

For alumnae/i who have not yet renewed their subscriptions for this year, we hope you will consider sending us another \$10. **NICHE** subscriptions and contributions to the special **NICHE FUND** created several years ago allowed us to purchase, with Swem Library's help, the new CD-ROM Literature Search System described in this issue. All donations are tax-deductible and are placed in a special William and Mary account to which only the Department of Biology has access. We thank all of you who have helped us the past few years --**more than \$9,000 has been donated to the Department through the newsletter!**

Send to:

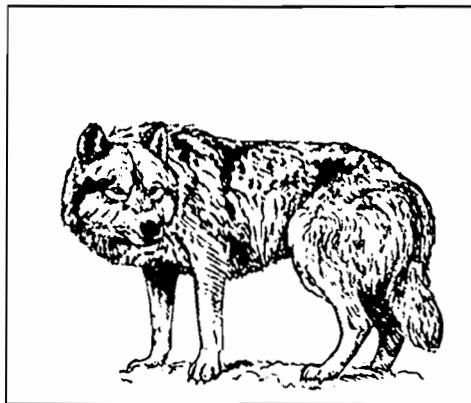
Your mailing address:-----

Lawrence Wiseman  
**THE NICHE**  
Department of Biology  
College of William and Mary  
Williamsburg, VA 23187

# Canadian Author Farley Mowat Never Cried Wolf

by Amanda Allen

Opening the page leaf of Farley Mowat's book, *A Whale for the Killing*, you will find a quotation, one often noted, from Henry Beston's *The Outermost House*. The passage is a treatise of man's exploitation and distortion of wild animals:



"For the animal shall not be measured by man. They are brethren; they are not underlings; they are other nations, caught with ourselves in the net of life and time, fellow prisoners of the splendour and travail of the earth." Undeniably, Farley Mowat has striven to unveil the beautiful and often tragic inter-

action of human-wilderness encounters and the wonder of the very net of life in which we are bound. From the recounting of his childhood adventures in *The Dog that Wouldn't Be* and *Owls in the Family* to his more renowned *Never Cry Wolf* and *Sea of Slaughter*, Mowat reveals an understanding and compassion that distinguishes this well traveled storyteller. Born in Ontario in 1921, Mowat likens himself to "a reincarnation of the Norse saga

men, and like them, (his) chief concern is with the tales of men, and other animals, living under natural adversity." His stories are woven upon the country-sides he knows best, the Canadian Arctic where life is at the whim of the natural elements of snow and ice. Readers are amazed at the oneness of the Eskimo with the land and wildlife in awe inspiring explorations of their culture. His humor balances the penetrating tales, but Mowat, as he reports in the introduction of *Never Cry Wolf* (a tale that initially started as a farce upon government bureaucracy), "never allows facts to interfere with the truth".



Collections such as *The Snow Walker* abound with stories revealing the white man's blindness to Nature and the consequent exploitation of the Eskimos, the wildlife, and the earth by him. His words are a plea to humans to regain their humanity and they are strongest in *A Whale for the Killing*. In this disturbingly

poignant tale of nonfiction, the author recounts a winter spent in a coastal Newfoundland village trying to rescue a fin whale. Trapped by receding water in a tidal cove, the whale (which is actually pregnant) becomes a helpless pawn of exploitation by the villagers bent on her destruction. Despite all desperate appeals for her survival, Mowat finally is forced to recognize that the "savagery and selfishness that seems to be spreading over the whole world like a fog" has reached even the outermost coast of Newfoundland. The hope of humanity dies with the whale. Ironically, these tapestries of man's brutality are balanced by the paralyzing beauty of Nature's works and over the decades, Farley Mowat continues to present us with the option to peel off our masks and reenter the world of seeing, of conserving, and of caring.

## *I'm An English Major, But I Like Biology, Too!*

by Jean Enzbrenner

*"I'm so glad I've finally gotten rid of Area 1," a friend tells me as we leave a Zoology lecture. When I tell her that I'm an English major, I receive the usual shocked and confused expression followed by "Why?"*

*Students tend to view Area 1 and 3 as different worlds. One would think you need a passport to travel from Tucker to Millington. But, then there are a few like me who chose both.*

*When I chose to major in English and minor in Biology, most people didn't understand why. Chaucer and ecology just don't seem to mix. However, writing is connected to everything.*

*I've been concerned with environmental issues for quite some time, but never felt that I should be a scientist. I thought I would make more of a difference as a writer.*

*There is a need to educate the public about environmental problems and what can be done about them. By writing for environmental magazines, I can help to do that. Studying Biology gives me some sort of background to build on while I improve my writing by studying English.*

*"Where each line overlaps and locks into another,*

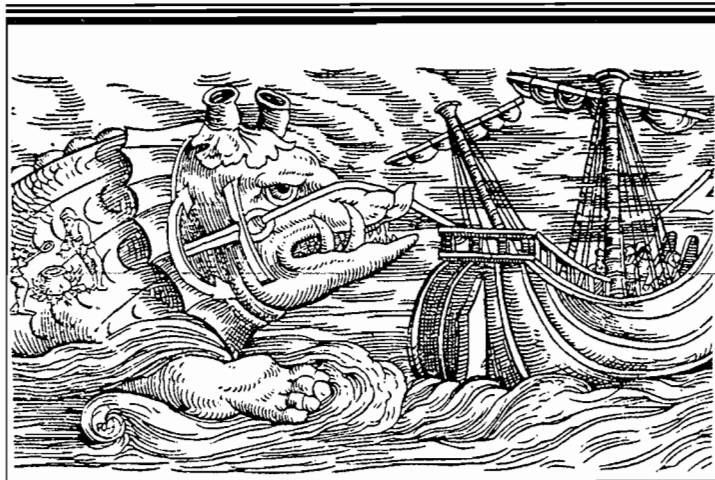
*And the whole design is continuous, and in England is called*

*Everywhere, I am told, the endless knot."*

**-The Pearl Poet, *Sir Gawain and the Green Knight***

### \*\*\* Student Research Opportunity \*\*\*

During the Spring Semester and Summer, **Dr. Laurie Sanderson** will be studying prey capture by planktivorous fish that consume minute suspended plants and animals. Biology concentrators with interests in fish feeding and coral reef ecology are needed for instrument fabrication and data analysis. SCUBA certification and electronics expertise may be helpful. **There is the potential for limited part-time employment.** *If interested, please contact Dr. Sanderson at 221-2123.*



## Department Directory and History Available For Purchase

*Submitted by Dr. Charlotte Mangum on behalf of the now-retired Biology Tercentenary Committee*

As a part of our Tercentenary celebrations, two Departmental publications were prepared for Biology graduates.

First, **Dr. Bradner Coursen** compiled an extensive directory of your professional and private addresses. I read it like a novel, and found it very interesting, quite apart from being useful. I would expect many of you would simply be curious about your collective whereabouts. In addition, you may be able to use the particulars on other W&M biologists/biomedical practitioners, either in your area or at a distant site where you might need information.

Many of you pre-paid at the Millington Hall reception after the Homecoming football game. If you didn't but want a directory, please send \$12 (\$9 + \$3 postage) to **Dr. Bradner Coursen, Department of Biology, College of William & Mary, Williamsburg, VA 23187-8795.** The Directory is 1.5-2 inches thick, in an 8.5X11 inch spiral bound volume.

Second, **Dr. Stewart Ware** wrote an 80-page history of instruction and investigation in Biology at W&M, beginning before 1693 and continuing into the present. He delivered part of it in oral form at our Charter Day festivities. I haven't yet read the printed version, but the talk was terrific.

Again, a lot of you pre-paid but, if not, send him \$6.00 at the address above. It is bound similarly.

## Undergraduate Scholarship and Program Opportunities

### Departmental Reading Room Center Established

A long-standing practice of posting scholarship, job, and educational opportunities for Biology students on the bulletin board across from Millington 117 has been augmented by the addition of an "information center" in the Biology Reading Room. **Dr. Sharon Broadwater**, Chair of the Department's Undergraduate Research Committee, established the new system and will continue to update the information.

The information is filed under five areas: Biology Courses, Scholarships, Fellowships, Summer Programs, and Miscellaneous Opportunities. Students are encouraged to consult the bulletin board, the reading room information center, Dr. Broadwater herself, or the office of the Department Chair for interesting opportunities. In past years students have arranged a wide variety of experiences for themselves from work at the National Institutes of Health to summers doing field work in many different areas of Biology.

### First Year Graduate Students Settle In

*by Amanda Allen*

Once again last semester the Biology Department welcomed a veritable plethora of new graduate students, all but one of whom can be found housed in the basement office of the newly expanded room 2. From sunny California, **LARA ACKERMAN** a '93 graduate of U.C. Santa Cruz has begun work on her filter feeding fish research with Dr. Sanderson. Lara has spent time helping with dolphin sleep behavior research and volunteering to protect hatchling sea turtles from predators as they made their way to the ocean. **CATIGAN ADEY** ('88 Virginia Tech.) is a Williamsburg native who spent the last 6 years in a variety of jobs including working in an L.A. cytogenetics lab and volunteering for the Peace Corps in Sierra Leone West Africa. With hopes of becoming a family physician, Catigan plans to attend medical school in the future. **DELIA FOLLET** returns to W&M after graduating in '92 with a degree in Psychology.

Balancing class work with taking care of a baby, Delia is preparing for a career in veterinary medicine. **JOLIE HARRISON**'s interests lie in behavioral ecology (and I have been told she is an excellent singer too!) although she has not decided on a research project yet. **JOY KARNAS** ('93 W&M) spent the summer working in the accounting department of a contracting company and continues to work for Bike Virginia, where she helped set up a southwest Odyssey tour from Bristol to Floyd, VA. **LAURA ROCHMIS** ('92 W&M) returns after a year working as a day school teacher and as a bone densitometry technician; she also serves as the 1st year G.S.A. representative. An avid guitar player, **LORI SNYDER** is yet another '93 W&M biology/music double major. Lori is undertaking genetics research. From the University of Arizona, **ED STICKNEY** will be working with Dr. Saha. Ed spent 3 years researching insect neuroanatomy and in his spare time (which, like many other grads, he can never find) likes to surf, camp, and body board. From Butler University in Indiana, **TROY WELDY** spent the summer working on a variety of botanical studies of the trees, shrubs, and herbaceous plants at Butler. Troy will continue botanizing for his thesis research.

# WILLIAMSBURG CULTURE SHOCK

by Callan Bentley

It has long been known by anthropologists that when people of one area are suddenly immersed in another setting, they frequently find the new lifestyle to be vastly different, and experience culture shock.

The Department's newest faculty members hail from Oregon, California, Pennsylvania, and Michigan. Being suddenly dropped into Williamsburg's unique culture makes some adjustments necessary. While the culture shock hasn't proved to be traumatic, the new professors are changing their perceptions in many small ways.

For instance, being America's "Colonial Capital" means that Williamsburg has different entertainment options than most towns, plus more tourists. "The tourist situation is not as bad as I thought it would be, but it feels a little bit like living in Disneyland," said new professor **Nancy Pryer**, who rides her bicycle through the colonial area each day to work.

Professor **Dorothy Reilly**, who also joined the department this year, appreciates Williamsburg's unique position. "I like a lot of the aspects of small towns. Williamsburg is a small town, but because it's a tourist center, it has a lot of nice little extras," she said.

Of course, the demands of a new job often preclude immediately experiencing a new town. "I've spent most of my time in the lab," said professor **Margaret Saha**. Saha has found this arrangement agreeable so far, though, "it's so hot and muggy in the summer."

Professor Reilly agrees. "The weather is awful. The summers here are a definite problem," she said.

"The humidity wasn't as much of a culture shock to me, because I went to grad school at Chapel Hill," Pryer said.

The town and its weather are only part of the experience of joining the College's faculty, though. The College itself differs from other schools.

"Old campus is architecturally very interesting," UVA alumna Saha said. "Historically, as well, it is interesting, but I'm used to that aspect."

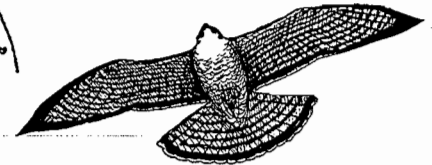
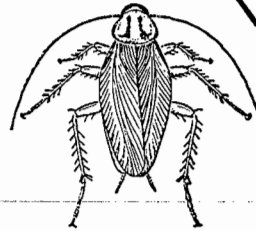
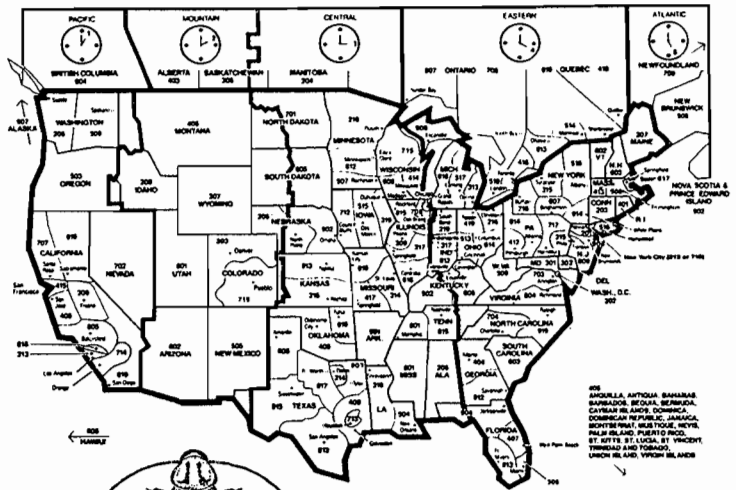
The new faculty have been impressed with the students here, as well. "The undergraduates I've interacted with so far are really bright. It's exciting to think about teaching people who are working hard and enthusiastic," Pryer said.

Pryer also appreciates the department's warm atmosphere. "I feel like I've really been welcomed here," she said. "Having this cohort of four of us starting at the same time is really nice."

Several of the new faculty members reported having some difficulties setting up their laboratories. "I was kind of disappointed in getting my lab set up," Pryer said.

"I wish there was a little more emphasis on research at the College.... William and Mary needs to realize that this sort of thing is time-consuming and expensive," Saha said. "In order to keep up with the times, the College needs to make that commitment."

In general, however, the new professors find their relocation to Williamsburg to be a positive move, and not too disorienting. "It hasn't been as much of a culture shock as I thought it would be," Pryer said.



## THE NICHE

Department of Biology Newsletter



Student Editor: Callan Bentley

Graduate Editor: Amanda Allen

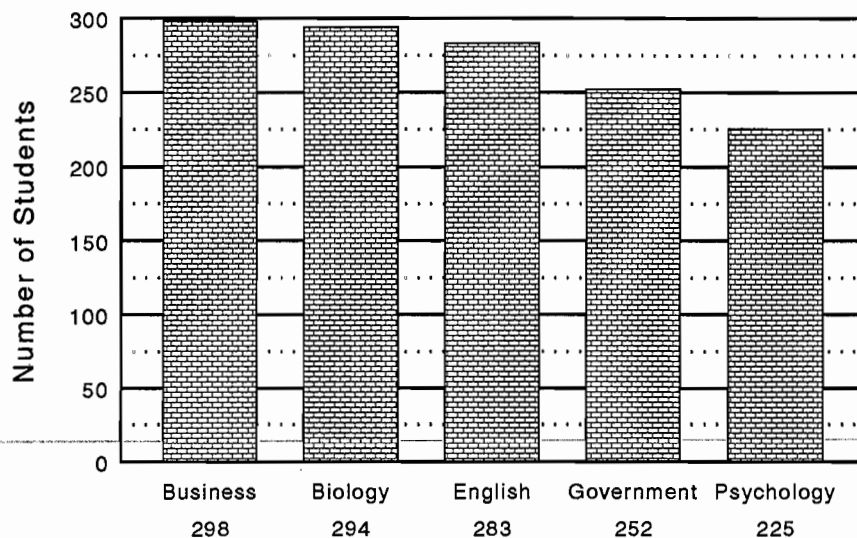
Adviser: Lawrence Wiseman

# THE NICHE

College of William and Mary Department of Biology Newsletter

## W&M's Top Five Declared Majors

(Fall '93; 2558 total declared)



**THE NICHE**  
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P.O. Box 8795  
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PRE-SORTED  
BULK RATE

TO: