Bones tell the story
BGSU researchers study Lake Erie sport fish

A small bone in the heads of fish could reveal to researchers where important sport and commercial fish have spawned and where they are spending their adult lives.

BGSU biologists and geologists are collaborating on a study of yellow perch in Lake Erie to see if the otolith—a small bone that helps fish maintain their balance—is a reliable source of encoded information on their spawning and migratory habits. The results could help the Ohio Department of Natural Resources focus its conservation and management efforts on the critical habitats of yellow perch and other sport fish such as walleye, white bass and smallmouth bass.

Sport fishing is a major recreational activity on Lake Erie and a prime economic driver of the coastal tourism industry. Lake Erie fishing traditionally has contributed about $500 million per year to Ohio's economy, according to Ohio Sea Grant data. A 1999 Sea Grant study of recreational boating in Ohio estimated that over half of Ohio's $1.3 billion boating-related spending was connected to Lake Erie fishing. But the industries supported by Ohio's sport and commercial fisheries have experienced economic declines in recent years, due in part to ecological changes in Lake Erie that have affected food supplies and altered fish distribution and behavior. BGSU has several research projects aimed at helping to identify and solve those problems.

In one of them, Dr. John Farver, geology, and Dr. Jeffrey Miner, biology, have devised a series of experiments in the lake and laboratory to look for a chemical signature in yellow perch otoliths. The project is funded through a three-year grant from the Ohio Sea Grant program of the U.S. National Oceanic and Atmospheric Administration for nearly $270,000 in total funding.

"We don't really know where the fish come from and where they are going," according to Todd Hayden, a second-year doctoral student from Mechanicsburg, Ohio, who is heading up the project. Yellow perch spawn throughout the western basin of Lake Erie and near shore areas of the central basin near Cleveland, and then distribute themselves throughout the lake, where they seek an area with plentiful food supply in which to live out their lives. "If we can discover which are the most fertile spawning grounds, that information can help the DNR set better fishing limits on those areas in the spring in order for the area to continue to be a strong provider of fish," Hayden said.

"The otolith is really more of a rock than a bone," he explained "It is made up of elements like strontium, magnesium and manganese, but mostly calcium as in bone. The analytical technique we use was developed by geologists and involves using a laser ablation inductively coupled mass spectrometer." Because BGSU does not own that instrument, the researchers are collaborating with the University of Windsor to analyze their samples.

"Otoliths are like the rings in a tree trunk," Hayden said. "They grow more in summer and contain the chemical elements of the environments the fish pass through. If these rings turn out to be reliable indicators, we're really onto something."

The technique could be used by aquatic ecologists everywhere to track the movement of fish and help conserve habitat. In addition, the otoliths provide a record of when persistent bioaccumulating toxic metals such as lead and mercury were absorbed. Because consumption of those metals impacts human health, the otolith may also provide valuable information on water quality in critical habitats of important fish.

Hayden and a team of graduate and undergraduate students have placed cages holding young perch in nine locations around Lake Erie, leaving them in place for three weeks at a
time to allow the otolith to grow enough to incorporate the chemical signature of the water.

On a recent hot, August day, he headed out to the lake with Christopher Winslow, a fellow doctoral student and instructor in biology, for the second round of checks on the perch cages. It takes several days to check all the cages, which range from near Rattlesnake Island to Sandusky Bay to close to the Canadian border near Detroit.

After locating the cages using a Global Positioning Satellite device and a sonar fish finder, Hayden and Winslow dived in to retrieve them. Swimming near the bottom—“like swimming blindfolded or with your eyes closed,” according to Hayden—they located the cages by feel and pulled them up and into the boat.

They were pleased to find that, again, a good number had survived. In the first round of experiments in July, 75 percent of the perch had survived, impressive since very young fish have a 99 percent mortality rate, Hayden explained. The tiny yellow fish were counted and placed into plastic bags to be taken back to the laboratory for removal of the otolith.

They also retrieved a sensor that had recorded water temperatures over the previous three weeks, and then collected water samples to see what the baby fish had been eating and how many zooplankton, or aquatic insects, are in each location.

They were dismayed, however, to find that a number of round goby fish had somehow made their way into some of the cages. The invasive species, carried to Lake Erie in the ballast water of ocean-going ships, are changing the ecology of the lake and threatening food supplies of native fish.

The dispersal of early juvenile round gobies in Lake Erie was the subject of Hayden’s master’s thesis and employed, among other things, the chemistry of their otoliths. The round gobies are the subject of another BGSU research project, headed by Miner and conducted by Winslow, which is studying their impact on smallmouth bass populations.

Regional development center looks to extend its collaborative reach

The University’s Center for Regional Development (CRD) is looking to expand its collaborative efforts well beyond BGSU and even the northwest Ohio region.

Dr. Michael Carroll, the center’s new director, would like to create a global network of university-based centers with missions similar to the CRD, whose focus is on enhancing community and regional economic development in a 27-county area.

Carroll, economics, foresees network members conducting research with real-time, peer review, using a Web-based communications suite that includes video, audio and messaging. Researchers worldwide could immediately look at any issue posed, he said, predicting that such “active research” could change academic inquiry and, with it, the way problems are solved.

It’s not a done deal yet, but with verbal commitments received from universities in the United Kingdom, Australia and New Zealand, the network may begin with cross listings on members’ Web sites, he said.

It would be a logical extension of the work of the center, which changed its name in January, from the Center for Policy Analysis and Public Service, to more accurately reflect what it has always done—community and regional development, said Assistant Director Robin Weirauch.

In this case, she said, “regional development” means development of, as much as within, regions. The center encourages local leaders to think about collaborations outside their political subdivisions, and even county boundaries, for the sake of economic development, she explained.
One way to get local entities thinking regionally is the concept of clusters, defined as geographic concentrations of interconnected companies and institutions in a particular field. The idea is cooperation, seeking complementary businesses that will aid development in a larger area and "not just looking after your own backyard," Weirauch said. Cluster-based development "can transcend all of that" for long-lasting economic well-being, she added.

Along with Neil Reid of the University of Toledo, Carroll is directing a cluster project, now in its third year, aimed at bolstering the greenhouse industry in a five-county area of northwest Ohio. The project advisory board includes greenhouse and farm market owners, as well as representatives of the Regional Growth Partnership, the Ohio Floriculture Association and the U.S. Department of Agriculture's Agricultural Research Service. An Ohio State University extension agent and an OSU faculty member in horticulture and crop science are also among the board members.

"We're replicating the greenhouse cluster in other areas," including the automotive, plastics and glass industries, Carroll noted. "We have a lot more external collaboration now."

Working with economic development practitioners such as the Regional Growth Partnership, the Toledo-Lucas County Port Authority and a variety of city and county officials, the Carroll/Reid cluster strategy now underpins the region's overall economic development efforts.

Carroll, who holds a Ph.D. from Colorado State University, is a former operations manager at one Dayton-based firm and corporate controller at another. Affiliated with the CRD since coming to Bowling Green in 2001, he became its director last month, replacing Dr. Beth Walter Honadle, who is now director of the Institute for Policy Research at the University of Cincinnati.

Following her departure last year, a committee with campus and external representation reviewed the center's operations and recommended renewed emphasis on its research function, particularly from an interdisciplinary standpoint.

A member of the Ohio Rural Universities Program that began in 1985, the center had been part of the political science department until 1999, when it became an independent unit, offering "a natural transition" to an interdisciplinary approach, Weirauch noted.

Under the Graduate College's purview since then, the center has worked with many BGSU departments, including, on the greenhouse project, faculty members from the economics, geography and management departments, Carroll said.

The CRD is currently partnering with other areas on campus as well. In collaboration with the School of Art, the College of Musical Arts and the Department of Theatre and Film, a study of the arts' economic impact in northwest Ohio is under way. It is under consideration as the focus of the center's annual State of the Region conference next April. Other projects are teaming the CRD with the Canadian studies program to study Canadian businesses in northwest Ohio, and with the history department's policy history program to look at providing institutional memory in the Ohio General Assembly in an era of term limits.

Carroll has successfully participated in such "interdisciplinary and inter-collegiate collaborations" and generated external funding for them, according to Dr. Heinz Bulmahn, vice provost for research and dean of the Graduate College.

Calling the new director "a role model" for President Sidney Ribeau's Scholarship of Engagement initiative, Bulmahn added that Carroll has been involved in regional economic development issues and "has a clear vision of developing the center in order to achieve its outreach and research mission."

Faculty, staff assume new roles

As always, the new academic year brings with it some changes in leadership across campus. Following is a list of some of the developments:
In the College of Arts and Sciences:
- Dr. Simon Morgan-Russell, English, has been named associate dean for student academic affairs. He replaces Dr. Vickie Shields, who has left the University.
- Dr. Kristine Blair is interim chair of the English department.
- Dr. Lou Katzner is acting chair of the philosophy department.
- Dr. Gary Lee, chair of the sociology department, will also serve this year as interim chair of ethnic studies.
- Dr. Scott Martin is the new history department chair.
- Dr. Sharona Muir, English, will direct the Creative Writing Program this year.
- Dr. Larry Dunning is the new chair of computer science.
- Dr. Oliver Boyd-Barrett is the new director of the School of Communication Studies.
- Jodi Devine is the new associate director of the University Honors Program, directed by Dr. Paul Moore, biological sciences.
- Gordon Ricketts, art, has been named director of the Arts Village.

In the College of Education and Human Development:
- Dr. Rachel Vannatta has been named interim director of the School of Leadership and Policy Studies.

In the College of Technology:
- Dr. Joseph Frizado, geology, is interim dean. Dr. Ernest Savage retired in June.

In the College of Business Administration:
- Dr. Nancy Merritt, marketing, is interim dean. Dr. Robert Edmister has returned to the finance faculty.

At BGSU Firelands:
- Dr. James M. Smith, formerly chair of the applied sciences department, has been named associate dean for outreach and engagement, a newly created position.

Also, Carrie Rathsack is the new associate director of the Center for Teaching, Learning and Technology. The previous associate director, Connie Molnar, has become the director for Interactive Distance Education for All Learners (IDEA!), the Continuing and Extended Education.

And Dr. Michael Carroll, economics, is the new director of the Center for Regional Development, formerly the Center for Policy Analysis and Public Service.

Tunisian journalism professor to be Fulbright Scholar here

The School of Communication Studies will welcome Dr. Fatma Azouz of Tunisia as a Fulbright Scholar-in-Residence this fall. Azouz’s visit to BGSU is part of a developing relationship between the school and scholars and students from the Institute of Press and Information Sciences (Institut de Presse et des Sciences de l’Information-IPSI), in Tunis.

Azouz, an assistant professor of journalism at IPSI, is also the Tunisian partnership director for BGSU’s collaboration with the institute. The joint venture is supported by a grant from the U.S. State Department’s Middle East Partnership Initiative. She has worked with School of Communication Studies faculty developing the two-year project, which involves BGSU faculty helping IPSI develop a new degree focus in international media and new curricula in the
areas of international media, women and the media, new media, the role of media in building democratic societies, environmental reporting and journalism ethics.

The partnership has created opportunities for BGSU and IPSI faculty to work together in Bowling Green and Tunis, and for Tunisian students to visit BGSU this summer for a two-week workshop.

In addition to her academic affiliation, Azouz is also a practitioner of journalism, having worked at Radio Television Tunisienne, Voice of America and the British Broadcasting Corp.

She is committed to advancing the understanding of cultures and nations through international exchange and dialogue, and to women’s rights and professional development.

Azouz has participated in international meetings on “Training Communication Skills,” in Tunis, and on “Youth Representations of Women’s Rights,” in Tabarka, Tunisia. She has presented her work on Arab women journalists in Beirut and Tunis, and has published articles on such topics as women and the media in the Arab world, the Tunisian press and the environment and international media.

She received her Ph.D. in journalism from Pantheon University in Paris and was awarded a Humphrey Fellowship to study in the United States from 2000-01. She completed her journalism training at Belgian Radio Television and studied digital editing in Marseilles, France, and at the African Center for the Perfection of Journalists and Communicators (Centre Africain de Perfectionnement des Journalistes et Communicateurs).

**New MyBGSU makes its debut today**

The new MyBGSU was launched today, and users can immediately begin taking advantage of all the services and information offered by the customizable campus enterprise portal.

By going to the University home page and clicking on MyBGSU, the many familiar campus online services will be available, plus a number of new ones. A single login is all that is needed to enter the secure site.

Want to know what the weather is here or in another area? It’s there, in the middle column. To check out breaking news, see the CNN News column. Users can view their email and MeetingMaker, use Blackboard/eLearning, and access all the other online services BGSU offers.

Monitor and the daily Marketing and Communications emails will also be found at the site. An added bonus is that information will be separated by constituent group, so that students, faculty and staff need only receive that which is pertinent to them. Of course, everyone will continue to receive news relevant to all.

As the site is developed further, it will offer many more avenues of communication between campus audiences.

**IN BRIEF**

**Opening day address to set tone for new year**

President Sidney Ribeau will give his annual opening day address at 10 a.m. Friday (Aug. 19) in the Lenhart Grand Ballroom of the Bowen-Thompson Student Union.

The campus community is invited to reconnect with colleagues and friends over coffee at
9:30 a.m. preceding the address.

Those at BGSU Firelands can watch a simulcast of the talk in the Cedar Point Center.

For those who work nights, the speech will be shown at 10:15 p.m. Aug. 24 in the Union Theater. Refreshments will be served at 10 p.m.

CALENDAR

Monday, Aug. 15
BGeXperience Faculty Workshops, 8:30 a.m.-4 p.m., 306, 307 and 309 Bowen-Thompson Student Union.

Tuesday, Aug. 16
New Faculty Information Fair, 10:30 a.m.-noon, 101 Olscamp Hall.
Weight Watchers @Work, noon-1 p.m., 314 Union. Sponsored by Union Programming.

Wednesday, Aug. 17
Classified Staff Council, 9 a.m.-noon, 316 Union.

Thursday, Aug. 18
BG@100 View Paycheck Demonstration, 10 a.m., 1 p.m. and 2 p.m. (three sessions), 208 Union. This session will introduce the View Paycheck self-service application used to obtain paycheck information.
Movie, "Kicking and Screaming," 9 p.m., Union Theater. Sponsored by Union Programming.

Friday, Aug. 19
President Ribeau's Opening Day Address,

Sunday, Aug. 21
Movie, "Hitch," noon, Union Theater. Sponsored by University Activities Organization.

Monday, Aug. 22
First Day of Classes

JOB POSTINGS

FACULTY
There were no postings this week.

Employees wishing to apply for these positions must sign a "Request for Transfer" form and attach an updated resume or data sheet. This information must be turned in to Human Resources by the job deadline.

CLASSIFIED
View job descriptions at:
www.bgsu.edu/offices/ohr/employment/BGSU_only/
The deadline to apply for the following positions, which are open to BGSU employees only, is 1 p.m. Friday, Aug. 19.

Secretary 2 (J-000031)—The Women's Center. Pay grade 7. Twelve-month, part-time position.

Secretary 2 (J-000032)—The Center for Family and Demographic Research. Pay grade 7. Twelve-month, full-time position.

The following positions are advertised on and off campus. The deadline to apply is 1 p.m. Friday, Aug. 19.

Telephone Operator 1 (K-000030)—College Relations, BGSU Firelands. Pay grade 3. Twelve-month, full-time position.


ADMINISTRATIVE

View job descriptions at: www.bgsu.edu/offices/ohr/employment/adm_staff/

Assistant Director of Student-Athlete Services (V-000003)—Intercollegiate Athletics. Administrative grade 12. Review of applications began July 15 and will continue until the position is filled.

Financial Analyst (R-000006)—Student Affairs. Administrative grade 13. Review of applications began Aug. 1 and will continue until the position is filled.

Assistant Director of Athletic Communications (R-000013)—Intercollegiate Athletics. Salary is commensurate with experience. Review of applications began Aug. 12 and will continue until the position is filled.

Video Coordinator/Football Operations (R-000012)—Intercollegiate Athletics. Salary is commensurate with experience. Review of applications began Aug. 12 and will continue until the position is filled.

Associate Director of University Dining Services for Business Affairs (R-000015)—University Dining Services. Administrative grade 16. Review of applications will begin Aug. 19 and continue until the position is filled.

Director, Dallas-Hamilton Center for Entrepreneurial Leadership (R-000018)—College of Business Administration. Administrative grade 18. Deadline: Aug. 19.


Associate Director of Residence Life for Business Affairs (V-034)—Office of Residence Life. Administrative grade 13. Review of applications began May 13 and will continue until the position is filled.

Residence Hall Director (V-013)—Residence Life. Administrative grade 13. Review of applications will continue until the position is filled.


Manager (V-055)—University Dining Services. Administrative grade 12. Review of applications begins Aug. 26 and will continue until the position is filled.


OBITUARY

There were no obituaries this week.