Department of Zoology.

[Madison, Wisconsin]: [s.n.], [s.d.]

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UNIVERSITY COMMUNICATIONS
NEWS RELEASES

FOR IMMEDIATE RELEASE
12/3/01
CONTACT: Tim Moermond, (608) 262-5868, tcmoermond@facstaff.wisc.edu

GORILLA CONSERVATION ADVOCATES TO SPEAK AT UW-MADISON

MADISON -- Two University of Wisconsin-Madison alumni credited with helping rescue the world's largest apes from the brink of extinction will give a free public lecture at 7 p.m. Monday, Dec. 10, in 145 Birge Hall, 430 Lincoln Drive.

Amy Vedder and Bill Weber will discuss the challenges of protecting mountain gorillas in poverty-stricken, war-torn central Africa, as detailed in their new book, "In the Kingdom of Gorillas: Fragile Species in a Dangerous Land," (Simon & Schuster).

Vedder and Weber, who are married and work for the New York-based Wildlife Conservation Society, both earned their doctorates at UW-Madison. While conducting their dissertation research in the late 1970s, they co-founded the Mountain Gorilla Project in hopes of halting a precipitous decline in the population of Africa's rarest gorilla subspecies.

At the time, only about 250 mountain gorillas remained in Rwanda's Parc des Volcans national park, one of just two small pockets of rainforest where the reclusive animals live. Twenty years earlier, the gorillas had numbered roughly 450. Poaching was rampant, but loss of habitat was the biggest threat.

Vedder and Weber recognized that the gorillas were doomed unless something was done to save their land. Over the objections of Dian Fossey, who became famous for chronicling the lives of these gorillas in the wild, Vedder and Weber set out to educate Rwandans about the primates and the importance of conservation while establishing an ecotourism program, with gorillas as the main attraction, to bring desperately needed revenue to Rwanda.

Largely because of their efforts, the mountain gorilla population in the Virungas has risen to about 320. But the animals' long-term survival is still threatened by natural changes and disasters, hunters and poachers, and the chronic political instability that swirls around the edge of their forest home.

The Institute for Environmental Studies and Department of Zoology at UW-Madison are co-sponsoring the lecture by Vedder and Weber.
# # #
-- Tom Sinclair, (608) 263-5599
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University Communications

News Releases

UNIVERSITY OF WISCONSIN MADISON

FOR IMMEDIATE RELEASE
September 7, 1999
CONTACT: Tom Sinclair, (608) 263-5599

SYMPOSIUM SPOTLIGHTS ECOLOGICAL DISASTER, RECOVERY

MADISON -- One of this nation's biggest environmental mishaps will be the subject of the keynote address at the University of Wisconsin-Madison Ecology Groups's Fifth Annual Ecology Symposium, to be held Sept. 16-17 in the auditorium of the State Historical Society of Wisconsin, 816 State St.

John Wiens, a leading landscape ecologist and Colorado State University professor, will open the symposium with a lecture on "Science Versus Advocacy: the Lessons of the Exxon Valdez Oil Spill," at 7 p.m. Thursday, Sept. 16.

This year marks the 10th anniversary of the supertanker disaster in Alaska's Prince William Sound. Wiens will review the extent of ecological recovery and consider how scientists and environmental advocates measure an accident's impact and recovery.

The symposium resumes at 1 p.m. Friday, Sept. 17, with briefings on a variety of current ecological and sociological studies by UW-Madison professors including John Andrews (plant pathology), David Mladenoff (forest ecology and management), Peter Nowak (rural sociology) and Donald Waller, (botany). Two other professors, Anthony Ives (zoology) and James Kitchell (limnology), will make opening and closing remarks.

Wiens will give a second, concluding lecture, "Heterogeneity and Scaling in Ecological Landscapes: The Proper Focus for Global Change Research?," at approximately 3:40 p.m. Friday. A reception will follow.

All of the free presentations are open to the public.

The symposium is organized by the UW-Madison Ecology Group, which draws faculty and academic staff members from throughout the campus, and is sponsored by the University Lectures Committee, Institute for Environmental Studies, School of Veterinary Medicine, Center for Limnology, and the Departments of Rural Sociology, Soil Science, Wildlife Ecology, and Zoology at UW-Madison.

For more information about the symposium or the UW-Madison Ecology Group, contact the symposium coordinator Imge Erguvanli by e-mail: ilerguva@students.wisc.edu; call Tom S

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Zoology

RESEARCH DIGEST

STUDY FINDS SURPRISES IN TEEN PEER INFLUENCES • Peers influence teens' decisions about sexual behavior in specific — and surprising — ways, according to new research and polling data to be released Thursday, April 29, in Washington, D.C. The press conference will be sponsored by the National Campaign to Prevent Teen Pregnancy (NCPTP) and will feature the findings of university researchers, including Bradford Brown of UW-Madison.

Brown is a professor of educational psychology and a nationally known expert on peer influence among youth. His analysis will be included in a new report to be released Thursday by NCPTP titled "Peer Potential: Making the Most of How Teens Influence Each Other."

Among the findings of Brown and other researchers:

- Much peer influence is positive.
- Best friends and the leading "in" crowd are less influential than we think.
- Having high-risk male friends and older friends of both sexes increases girls' risk of pregnancy.
- Parents can influence peer influence.
- Peer leaders are not measurably more effective than adult leaders in intervention programs.

BOOK PROFILES BLACK EXPERIENCE IN WISCONSIN A new book on African Americans in Wisconsin presents a current profile of the population and how it has changed during the past 25 years, making an earlier research report more accessible to professors, policymakers and others.

Sociologists Doris Slesinger of UW-Madison and E. Howard Grigsby of UW-Whitewater report positive trends in high school achievement and college enrollment for Wisconsin's African Americans. But data on poverty and unemployment, among other things, are less encouraging.

The book, "African Americans in Wisconsin: A Statistical Overview," has been published by Simon and Schuster Custom Publishing. The book uses data that shows, for example, that compared to all Wisconsin families African-American families are more than four times as likely to have incomes below the poverty line.

NEW USES FOR MANURE Aside from an annual cow-chip toss, the world hasn't stumbled on many alternative uses for cow manure. But university researchers have found two: water filters and particle board.

The biological systems engineering scientists are using separated and cleaned fibers from cow manure to make high-quality hardboards. Those fibers also have an uncanny ability to filter heavy metals from water. Richard Koegel, a USDA researcher and professor of biological systems engineering, says they use a separating press at the U.S. Dairy Forage Research Center at Prairie du Sac to separate the manure fibers from liquid waste.

The researchers teamed with a Chicago consultant to make steam pressure-treated hardboard from manure fibers. They are also working with the Forest Products Laboratory, which has installed a system that will use manure fibers to filter storm water at Mount Horeb's Stewart Lake.

Koegel says odor is removed in the separation process. But whether the public ever catches wind of the material might depend on the wood market, where shortages in wood and paper pulp are predicted.

"People should know the research is preliminary," adds Koegel. "Otherwise, I'll get phone calls from 500 farmers asking where they can drop off their manure."

A brush with the saola

UW zoologist found rare animal in a roadside zoo

Terry Devitt

If there's a common wisdom to field biology, it is to expect the unexpected. And the last thing primatologist Nancy Ruggeri expected to encounter was the saola.

But there it was, the spindle-horned animal that is possibly the last of the world's large mammals to be discovered. And it was not in some Southeast Asian mountain forest, the animal's natural setting, where Ruggeri saw and photographed the saola. It was in a dingy menagerie in a dusty frontier town in Laos, the curiosity of a local official.

The saola was cataloged for Western science for the first time in 1993 by Vietnamese scientists. The description was based on a captured juvenile. To that time, it had escaped notice by the many bands of intrepid field scientists dispatched from the West over the past 150 years — especially the great expeditions of the 19th century — to find and describe all the animals and birds of the world.

"The saola is probably the last large mammal in the world to be described," says Ruggeri, a zoology assistant faculty associate. "That's what's so incredible about it. It was completely overlooked."

Ruggeri's pictures are the first of a live adult saola, an animal that looks very much like an antelope, but whose precise taxonomic classification is still murky. Ruggeri may have been the first Western scientist to see an adult animal.

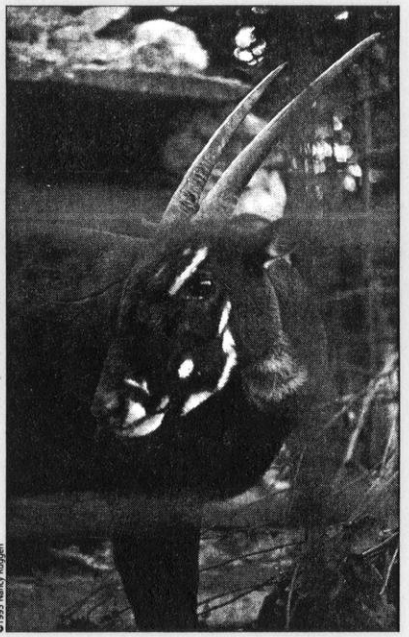
The size of a sheep, short and stocky, and the color of chocolate, the saola's two-foot-long horns are reminiscent of the spindle on a spinning wheel. With distinctive white facial marks and white bands across its rump, the animal, says Ruggeri, is unmistakable. It stayed hidden for so long because it exists in a limited and very remote area of Laos and Vietnam — countries until recently closed to the West — where it is thought to inhabit the wet forests of the Annamite Mountains.

Although very rare — with guesses of population ranging from 200 to 2,000 — the saola is not unknown to the Hmong tribes of the region who hunt the antelope-like animal with the help of dogs. And that, Ruggeri says, is how the saola she encountered in early January, 1996, came to be in the menagerie of a powerful Lao official.

Working on a field study of gibbons near the frontier town of Lak Sao, Ruggeri heard with disbelief rumors that a saola had been captured and sold to the local official for his private zoo.

"When I heard about it, I was very skeptical — until I got there," says Ruggeri of entering Lak Sao, a town that is little more than a dusty spot in the road, a frontier outpost whose primary authority is the local general or warlord.

Ruggeri took pictures of the female saola, which lived for only 18 days in captivity. No one, she says, knew how to care for it, although attempts were made and a veterinarian was dispatched by the Wildlife Conservation Society in an effort to save it. The Hmong did, however, make an uncanny — and accurate — prediction that the animal was pregnant.



©1993 Nancy Ruggeri

Although the region of Laos where Ruggeri was working on behalf of the Wildlife Conservation Society is remote and teems with exotic wildlife — tigers, gibbons, macaques and other rare primates — the prospects for the saola are probably not very good, she says.

With such a small population and with new pressures from logging and other forms of development, the saola will, at best, remain a rarely encountered animal. ■

Researchers plot a strategic plan to reduce state highway headaches

Brian Mattmiller

As the season of jackhammers and dust descends on state highways, it might be reassuring to know that a statewide research effort could ultimately reduce road-maintenance headaches.

That's just one goal of the new Wisconsin Highway Research Program, which brings together a diverse group of experts to set a strategic course for state highways. The effort teams engineers from UW-Madison and other state universities with state and federal transportation offices, private industry and consultants.

It's the first time that all of these interests are working together to set a research agenda for state transportation, says Peter Bosscher, a UW-Madison civil engineer and director of the UW-Madison effort. The program has started with $500,000 in funding from the state Department of Transportation (DOT) for 15 distinct projects on improving pavement, structures and foundations.

The concerted effort could not come at a better time, Bosscher says. Like most states in the country, Wisconsin is on a collision course between rapidly rising traffic rates and the ability of existing highways to handle it all.

"In the last 15 years, traffic loads have increased per lane by about 50 percent on all state highways," he says. "And we're not doing a good job in this state of putting more people in those vehicles. The average is about 1.2 people per car."

In addition, 46 percent of the state's highways are officially defined as congested, meaning they have traffic bottlenecks on a consistent basis. And by 2020, an estimated 62 percent will be congested, Bosscher says.

Urban areas such as Madison and Milwaukee face major traffic issues ahead. Needed upgrades to Milwaukee's highway and interstate system may top $5 billion in coming decades, and $20 billion for the entire state.

"There are some real challenges here," he adds. "Traffic volume is our single biggest problem."

The two overriding goals of the partnership are to reduce driver delays in key areas around the state, and gradually develop highway products that will last longer without additional costs. Some specific projects include:

- Finding new types of surface treatments that can lengthen the life of concrete.
- Investigating ways to reduce road settlement at the base of bridges, which often causes harsh bumps.
- Studying accident rates caused by wet pavement and finding new surface designs that can improve traction.
- Developing a Beneficial Reuse Program, which will turn industrial waste such as foundry sand, coal slag and fly ash into low-cost material for road construction.

"The question is, can we develop better materials so we only need to revisit roads for maintenance every 30 or so years?" Bosscher asks. "We hope to leave a legacy of improved materials and less required maintenance on roads. The payoff for research is always in the future."

One immediate research result, however, came from a small-scale project looking at reducing traffic noise caused by tires on pavement. A new type of grooved pavement significantly reduced traffic noise in urban areas, he says.

Partners in the research program include the Wisconsin DOT, the Federal Highway Administration (FHWA), and researchers at Marquette University, UW-Milwaukee and UW-Platteville. Private companies and consultants are also helping set the research agenda.

While the current agenda focuses on technical issues, Bosscher says the group will eventually tackle issues that get at community values, such as mass transit alternatives. Examples will include the feasibility of light rail as a commuting alternative, and assessing the impact new roads have – both good and bad — on a community.

"We all have the American dream of going where we want to go, when we want to go," Bosscher says. "I don't think people realize how much they depend on highways for that capability." ■

Zoology

FOR IMMEDIATE RELEASE 5/5/99

NEWS BRIEFS FROM THE UNIVERSITY OF WISCONSIN-MADISON

- o Library friends to hold recordings sale May 19-20
- o Seniors receive Herfurth-Kubly awards
- o Holstrom environmental scholarship recipients named

LIBRARY FRIENDS TO HOLD RECORDINGS SALE MAY 19-20

CONTACT: Don Johnson, (608) 262-0076; djjohns5@facstaff.wisc.edu

MADISON -- The Friends of the University of Wisconsin-Madison Libraries will sponsor a sale of recorded material in 124 Memorial Library May 19-20 from noon to 7 p.m. each day.

Records, cassettes, CDs and miscellaneous print music materials have been donated for the sale. Some 78 rpm records also will be available.

Proceeds from the sale of the donated music items will go to the friends group, which supports activities at campus libraries.

The sale will be in held on conjunction with the national conference of the Association of Recorded Sound Collections, hosted by the UW-Madison Mills Music Library, May 19-22.

For information about the Friends group and the record sale, write the Friends of the UW-Madison Libraries, 976 Memorial Library, 728 State Street, Madison, WI 53706, or call (608) 265-2505; or e-mail: Friends@macc.wisc.edu

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SENIORS RECEIVE HERFURTH-KUBLY AWARDS

MADISON -- Two University of Wisconsin-Madison seniors have received the Herfurth-Kubly Award based on their academic achievements, degree of self-support, extracurricular activities, communication skills and contribution to the community.

Kimberly Noble, a communicative disorders major from Madison, and Ryan Westergaard, a bioethics major from Delavan, will receive $1,000 each as top winners.

Nicole St. Clair, a nutrition, health and healing major from McFarland, and Victoria Maile, an actuarial science major from Brillion, tied for runner-up in the women's category. Bradley Anderson, an engineering major from Eau Claire, is the men's runner-up. The runners-up receive $500 each.

Considered the most prestigious award a senior can earn, the Herfurth-Kubly awards have been given for 71 years.

from the
STATE HISTORICAL SOCIETY
of WISCONSIN

Madison 6, Wisconsin

Release IMMEDIATE

CHIEF JUSTICE WARREN TO SPEAK AT LAFOLLETTE ANNIVERSARY

Madison (Special) ---The Honorable Earl Warren, Chief Justice of the United States, will speak at a commemoration next June, marking the one hundredth anniversary of the birth of Robert M. LaFollette, the Wisconsin State Historical Society announced today.

With the approval of the LaFollette family, the State Historical Society will sponsor the ceremonies in Madison on or about Sunday, June 12, 1955.

Chief Justice Warren will be the guest of honor and will deliver the commemorative address.

"Old Bob" LaFollette, who was born on June 14, 1855, was one of the most distinguished statesmen ever to come out of Wisconsin. Passionately dedicated to reform, he was a founder of the Progressive movement, and later rose to national and international eminence.

Further details of the anniversary ceremony will be announced later.

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Zoology

FOR IMMEDIATE RELEASE 4/28/99
CONTACT: Judith Kornblatt, (608) 262-9762

TEACHING ASSISTANTS RECOGNIZED FOR EXCELLENT INSTRUCTION

MADISON -- For performance that went above and beyond their job title, eight University of Wisconsin-Madison teaching assistants were honored this month with Graduate School Excellence in Teaching Awards.

Graduate students were nominated by their departments and evaluated by a faculty committee, chaired by Associate Dean Judith Kornblatt. Each winner received a $1,000 award.

"We look at a number of criteria some of which were innovation and mostly initiative-people who would take the initiative to do different projects to improve their teaching, help the class in ways that might not have been in mind- as well as leadership and mentoring other TAs," Kornblatt says. Also considered were the variety of teaching assignments, and the written comments and numerical scores from undergraduates' evaluations, she says.

This year's recipients are:

Thomas A. Brandner, a dissertator in botany, who has taught four courses and created new assignments, exercises and a course web page for his students. His adviser, professor Timothy Allen, says: "There is no room to be better than Tom Brandner."

Jonathan Ward Chipman, a doctoral student in environmental monitoring, who comes from a family of teachers. After tackling five courses at UW-Madison as a TA, he is known for his passion and ability for teaching.

Robert F. Darcy, a dissertator in English, who made students sad to leave his sections at the end of each semester, according to their evaluations. Teaching such classes as "Revolution, Rebellion and Restraint," Darcy received a rating of Excellent+ in more than one semester from his adviser, professor Susanne Wofford.

James Franciscus Gilhooly, a zoology dissertator, who used his teaching experiences to contribute to the department's planning for new lab facilities. He has taught more than 850 students over six semesters and is a volunteer in community outreach for biology education.

Pilar Gonzalez-Doupe, a doctoral student in counseling psychology, who also volunteers in community outreach education. As a TA, however, she did an impressive job co-teaching with a professor as a model for co-leading counseling groups.

David T. Kung, a mathematics dissertator, who won his department's teaching award in 1997 and was a Letters and Science Teaching Fellow in 1998. Kung was praised for his mentoring of other TAs, receiving a grant to design a Web page for sample math exams, and for organizing "Sidewalk Math" on the Van Vleck plaza.

Buffy Smith, a dissertator in sociology where she also won the 1998 teaching award, creates an inclusive classroom environment even in difficult classes, such as "Race and Ethnic Relations." She is so beloved by her students that they "talk about her as if she were a member of their family," says her adviser, professor Gary Sandefur.

L. Fernando Tejedo-Herrero, a doctoral student in Spanish and Portuguese, who is used as a model for new TAs in the department, according to Sarah Fritz, director of basic language. One student notes: "His enthusiasm is contagious, which is very important at 7:45 a.m."

# # #

-- Eileen Gilligan, (608) 265-5359

Zoology Department

FACULTY & STAFF

MILESTONES

Oncologist named associate dean for biological sciences

R. Timothy Mulcahy, professor of human oncology, has been named Graduate School associate dean for the biological sciences.

Mulcahy, who joined the faculty here in August 1985, today assumes one of the most visible and demanding positions in the Graduate School. Because UW-Madison has one of the world's largest and most diverse communities of biologists, and because this is a time of fundamental change in all of biology, Mulcahy will face numerous challenges as he helps guide graduate research and education.

Widely known on campus, and with service on more than a score of university committees, Mulcahy brings a wealth of experience and insight to the job, says Graduate School Dean Virginia Hinshaw.

"He has a highly productive research program, so he is very familiar with the challenges and demands facing biological scientists at this time," Hinshaw says. "He has also been very active in graduate education and administration and views excellence in graduate education as a high priority."

An authority in the areas of tumor biology and drug resistance, Mulcahy has published more than 65 refereed papers and articles. In 1995, he was recognized for his skill as a teacher by the graduate students in the department of human oncology.

Mulcahy says he hoped to be an active and effective advocate for biology faculty, staff and students.

"We need to be more proactive in our efforts to recruit the best graduate students," he says. "I'd also like to see us improve our standing in the biological sciences nationally. We're strong, but we can be even better."

Chemistry professor joins Teach for America board

Bassam Shakhashiri is hoping to place college graduates with a fire for the future where that outlook is needed most: the classrooms of inner-city and rural schools.

Shakhashiri, professor of chemistry, has been named to the advisory board of the Teach for America Math and Science Initiative. Teach for America is a national corps of teachers who devote their first two years out of college to teaching in under-served schools, especially in inner cities.

The seven-year-old program is placing more emphasis in coming years on math and science, where many districts face crisis-level teacher shortages. Estimates are about 30 percent of all high schools have no physics teachers, 17 percent have no chemistry teachers and 8 percent have no one qualified to teach biology.

But Shakhashiri says Teach for America strives for more than filling empty classrooms. The teachers recruited by this program, which is part of the Clinton administration's AmeriCorps national service network, are motivated by creating social change in urban and rural communities, he says.

"We want these teachers to mainly impart an attitude about science, and nurture

See MILESTONES, page 4

To report faculty and staff news

Faculty and staff members are encouraged to report honors, awards and other professional achievements for publication. We must receive your item **AT LEAST 10 DAYS BEFORE PUBLICATION.**

Campus Mail: **19 BASCOM HALL**

E-Mail: **WISWEEK@MACC.WISC.EDU**

Serving up innovation

How to break office inertia by breaking bread

Jeff Iseminger

Marc Kermisch

Warren Porter, zoology chair (in apron), whips up both breakfast and staff enthusiasm during their annual breakfast, where faculty cook for the entire staff. Office manager Tammi Kuhl (in line, dark blouse) says "this breakfast makes us feel more appreciated by faculty."

Question: What does the mouth-watering smell of eggs, tomatoes, cheese, pickle relish and a smidgen of hot sauce deftly scrambled together by the chair of the Department of Zoology have to do with quality improvement?

Answer: You'd be surprised.

That smell wafted through the zoology conference room in Noland Hall recently during the department's annual breakfast. This meal has a twist: Faculty members don aprons, thumb through recipes and break out fry pans as a way to say thanks to staff members for their work.

The chief scrambler is Warren Porter, department chair. "We're trying to create an environment where everybody can talk to everybody else," he says. It works for office manager Tammi Kuhl, who says "this breakfast makes us feel more appreciated by faculty."

This feeling of we're-all-in-this-together is critical to a new journey the department has embarked upon. For the past two years, the Zoology Department has been marshalling its human resources to improve itself.

"We're trying to take charge of our own destiny," says Porter, "at a time when we have to deal with cutbacks in federal and state funds."

An inspiration for this complex undertaking was a book Porter read called *The Human Touch*, by William Arnold and Jeanne Plas. "It superimposes human principles on the teaching of quality expert W. Edwards Deming," he says.

Some of those principles were adopted by the department during a retreat held last year to serve as a foundation for their improvement project. Among them:

- Support personal and family lives.
- Promote honesty without fear of retribution.
- Provide access to the leadership.
- Everyone in this organization is of value.

At the retreat, zoology faculty and staff identified three directions for the department: improving instruction, developing a reward system, and increasing physical and financial resources. Committees of volunteers were formed to address each area.

This spring, at a meeting a few days before the annual breakfast, the committees reported their recommendations. Tony Ives, assistant professor of zoology and co-chair of the instructional committee, said he was proud of his group's work.

His committee produced a spate of proposals to improve instruction, such as developing courses that integrate different topics (such as "Emerging Diseases"), starting an undergraduate zoology club and establishing peer groups for improving faculty teaching.

"Once you break the inertia," says Ives, "you might as well keep running with it. Improvement is very much an ongoing process."

You could tell at the meeting that inertia is beset on many fronts in the Zoology Department:

- The committee on increasing resources recommended that a faculty donation fund be established. Faculty could donate 1 percent of their salary for each of three years. The fund would send a strong message to potential donors, says John Kirsch, committee member and professor of zoology, "that we as a department care."
- Jim Kitchell, professor of zoology and co-chair of the rewards committee, says his group devised a merit pay system that would better retain talented junior faculty.

Saying isn't doing, of course, but Porter is confident that real improvement will occur. "The people in our department believe in this process," he says. "We also have resources available to help us over the rough spots as we implement and later evaluate these improvements."

Rough-spot specialists can be found in the Office of Quality Improvement. Counseling the Zoology Department from the beginning have been Jessica Simmons, Kathleen Paris and Naomi Gray. "They have been incredibly helpful and generous with ideas and time," says Porter.

Improvement can come on a scale smaller than whole hog, of course. That's what happened in the Department of History, where the support staff took a hard look at itself, then made some changes.

The instigator was Kenneth Sacks, former chair of the history department and now a dean at Brown University. With the help of Maury Cotter and Simmons from OQI, Sacks brought the staff together in 1994 and asked for their opinion — an important first step on the road to improvement.

Sacks suspected that something was awry in the *system*, not in the people. The associate chair under Sacks, Colleen Dunlavy, says there was "little sense among support staff that their performances mattered to the department."

Encouraged by Sacks, staff members asked themselves several questions: Why are we here? How do we contribute to the department's mission? Who is affected by the functions we perform? As part of their self-examination, they developed beginning-to-end "flow charts" of several processes, such as hiring, submitting course proposals and preparing information for the timetable.

"That gave us a better appreciation of each other's jobs," says Judy Cochran, a long-time staff member. It also gave them a cache of insights for changing the way they worked and regarding themselves as a team instead of individuals who happen to share the same space.

They began meeting weekly as a support staff, another first for the department. And as a staff they rewrote the job description for the department secretary into a departmental administrator role. "We needed someone with more clout," says staffer Sandy Heitzkey.

So they hired Danny Struebing, a retired Navy officer, as the administrator. "I act as a conduit between the staff and the faculty," he says.

Last year the staff asked the faculty to rate the changes in support services. Two-thirds of the respondents gave the staff the highest possible rating.

"What we witnessed was a transformation of the way support staff provided services," says James Donnelly, current department chair. "The quality of those services greatly improved across the board."

And that improvement needs to be continuous, says Struebing: "We didn't create a miracle, we just took the first step. We have a long way to go."

If *you* want to take that first step but aren't sure how, call the folks at OQI, 262-6843. "The mission of our office is to help campus units carry out their own missions more effectively," says Cotter, OQI director. "We provide methods and tools to help people across campus identify and define their issues and accomplish their aims.

"It's a privilege to work with so many creative people, such as those in zoology and history, who have the drive to continually improve an already world-class university."

Zoology, Dept. of

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NEWS

UNIVERSITY OF WISCONSIN–MADISON

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FOR IMMEDIATE RELEASE 10/13/94

SYMPOSIUM HONORS UW ZOOLOGIST JOHN ROBINSON

MADISON — University of Wisconsin-Madison Zoology Professor John Robinson, whose influential research on human evolution helped usher in a modern age of anthropology, will be honored this month with a two-day symposium celebrating his work.

Robinson, who joined the UW-Madison faculty in 1963 and retired in 1983, constructed a comprehensive view of early human evolution that is gaining renewed interest today. The South Africa native uncovered hundreds of fossils from South Africa's Transvaal region in the 1940s and 1950s that helped pinpoint and date the origins of the human race.

The symposium will be held Thursday through Saturday, Oct. 27-29, at the InnTowner Hotel, 2424 University Ave. It will feature talks from some of the top scholars in human evolution research, many of whom worked with Robinson or benefited from his work.

Among those is Phillip Tobias, a professor at Witwatersrand Medical School in Johannesburg, South Africa. Tobias is a three-time Nobel Prize nominee, one of the world's leading living paleoanthropologists and a long-time colleague of Robinson.

Tobias will give a keynote address Friday about dramatic evidence in the fossil record that shows human ancestors first learned to use language 2 million or more years ago. That address will be given at 132 Noland Zoology Building at 3:30 p.m., and is open to the public. In addition, Tobias will talk Friday at 9 a.m. about Robinson's contributions to

-more-

the study of human evolution.

Tobias said Robinson helped bring about a change in the middle 20th century of how paleoanthropology was studied. The first half of the century was marked by "considerable subjectivity, speculation and romanticizing," while the latter half gave way to numerous advances that made the study more precise and scientifically credible.

"Robinson's contributions mark him out as an harbinger and catalyst of this revolution in human evolutionary studies," Tobias said. "His 85 publications on hominid evolution between 1947 and 1972 are among the important works signaling this great transition."

Another conference participant, University of Toronto anthropologist Becky Sigmon, offers this observation of Robinson: "His views appear in all introductory anthropology textbooks, and have become so much a part of human evolutionary thought that he is often not even credited for his contributions."

Robinson's analysis of fossil records enabled him to place the rise of humanity at about 2 million years ago. Prior to his work, scholars had dated the start of the human race at no more than 650,000 years ago.

He also found that early human ancestors were not nearly as different as we first imagined. Some walked nearly as erect as modern humans, were capable of making stone tools and had similar meat-eating diets. Robinson studied the earliest progenitors of humans, labeled Australopithecus africanus.

Many of Robinson's discoveries came a decade before the more famous finds of Richard Leakey, a paleoanthropologist whose work centered in Kenya.

After the Tobias lecture, visitors will have the opportunity to see a new exhibit developed by the zoological museum documenting Robinson's research. The exhibit includes numerous fossil casts as well as photos from his work in the Transvaal.

The symposium will feature talks and scientific addresses by more than a dozen people, including researchers from the University of Arizona, Indiana University and the University of Queensland, Australia. It is sponsored by the UW Zoological Museum, the Department of Zoology and the University Lecture Committee.

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— Brian Mattmiller, (608) 262-9772

within politics. Over the years, says Barnhart, the Board of Trade and Mercantile Exchange have been remarkably successful at fending off new regulations through "a combination of evangelism and grease on Capitol Hill."

For details on Barnhart's residency, call Jeff Iseminger at 262-8287. The business-writer-in-residence program is sponsored by the School of Business, School of Journalism and Mass Communication, and the News and Information Service and is supported by a grant from the Brittingham Trust.

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WORRALL TO DELIVER COMMONS LECTURE

John D. Worrall will present the fourth annual John R. Commons Lecture Wednesday, April 17, at 3:30 p.m. at the Wisconsin State Historical Society Auditorium, 816 State St.

Worrall, chairman of the Economics Department at Rutgers University, will speak on "Regulation Costs and Workers' Compensation Issues." The public is invited to attend the lecture and a reception afterwards at the University Club, 803 State St.

The John R. Commons lecture series is sponsored by the Department of Actuarial Science, Risk Management, and Insurance of the UW-Madison School of Business and the Wausau Insurance Companies in memory of the former UW-Madison professor for his work in developing Workers' Compensation.

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SUMMER INNOVATIVE COURSE BROCHURE AVAILABLE

The 1991 Summer Innovative course brochure describing a special selection of new and innovative courses offered for the first time at UW-Madison is now available.

A sampling of the courses include: Aging and Health Promotion (Nursing 590); English as a Second Language -- Strategies for Bilingual Resource

Specialists (Curriculum and Instruction 375); French Literature: Vouvella Vogue Film and Other Arts (French and Italian 568); Human/Animal Relations (Zoology 400 and Wildlife Ecology 375); Law, Ideology and Cinema (Law 940); Looking at Environmental Issues - -The Wisconsin Experience (Environmental Studies 400); Scientific Aspects of Global Environmental Problems (Physics 175); and School Desegregation (Sociology 496).

For more information on these courses, contact the corresponding academic department or obtain a copy of the descriptive brochure from the Division of Summer Sessions, 905 University Ave., Madison, WI 53715-1005 (262-2115).

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UW-MADISON OFFERS RECYLING COURSE FOR EDUCATORS

Agriculture Economics 375 and 875, "The New Worlds of Recycling" taught by Peter Anderson and Professor John Strasma, is a three-credit course which will provide teachers with facts about recycling for both personal and classroom use.

Topics will include the solid waste hierarchy, environmental benefits, techniques for analyzing system economics, marketing dynamics, education programs and policy controversies. The course will be offered from June 17 to July 12, Monday and Tuesday from 8 a.m. to noon, with field trips to be arranged.

Anderson writes a popular "Scrappy Says" recycling column for the Capital Times and for WISC-TV. He is also a well-known consultant to area communities and businesses and has developed the state of the art software called "Recycle Ware". Strasma has extensive experience studying and advising governments on environmental resource issues.

For further information on "The New Worlds of Recycling", call Trish Haza at 262-6597.

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uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 08/11/87

CONTACT: Carey Krajewski (608) 262-4831

CRANES: REBUILDING THE FAMILY TREE

by Terry Devitt
University News Service

MADISON--On old farmland, within sight of southern Wisconsin's low-lying Baraboo Hills, University of Wisconsin-Madison zoologist Carey Krajewski gleans the raw material for his research.

Krajewski's precious raw material is the blood of the 15 species of cranes that still walk the earth, birds of a family that appeared some 55 million years ago when the Rocky Mountains first pushed skyward and the ancestors of today's horses were no bigger than dogs.

The blood Krajewski seeks, measured in drops, comes from feathered donors at the International Crane Foundation and will be used, in concert with the tools of the genetic engineer, to reconstruct the crane family tree.

"People have been trying to do this since Darwin," said Krajewski, a graduate student and researcher at UW-Madison's Zoological Museum.

In the past, family trees of the tall wading birds have been built on the basis of such things as behavior, anatomy and even vocalization, but all are subject to varying interpretation and no one tree has ever been universally accepted.

Krajewski's approach relies on a technique called DNA-DNA hybridization and promises, for the first time, to produce an accurate history of the crane family and fuel the debate as to how the 15 crane species, all of which seemed to have evolved from a common ancestor in Europe or Asia, colonized every continent on earth except South America.

According to Krajewski, some scientists argue for closely related animals' natural ability to disperse and colonize different parts of the world while

-more-

others argue that geological phenomena, the shifting and drifting of the world's continents, simply moved them to different parts of the world.

With an accurate family tree and the ability to tell when in the history of the earth one crane species diverged from another, it would be possible to match that date with a particular geologic event, events routinely dated by scientists.

"It's like putting pieces of a puzzle together where the pieces are floating continents," Krajewski said.

Developed at Yale University, the technique Krajewski is using to rebuild the crane family tree employs DNA -- the twisted-ladder-shaped material that is the basis of heredity in plants, people and animals.

First, the DNA is extracted from the cranes' blood cells and the DNA ladder is sheared down the middle to form single strands. The single strands from two different crane species are mixed together and allowed to fuse, but not every rung of the hybrid DNA ladder is a precise fit.

The mismatched rungs, according to Krajewski, mark the genetic differences the species have incorporated since they last shared an ancestor.

Because cranes evolved from one common ancestor the technique opens the way for a complete exploration of the living crane family lineage.

"What this technique allows us to say is which of these species are most closely related," Krajewski said. "It indicates overall genetic similarity."

Not only does Krajewski's work promise to place the whooping, sandhill and Siberian cranes on their respective branches of the family tree, but also it bears the potential to determine when in history a particular species evolved.

"Once you have the family tree, and we already know something about dating geologic events like the patterns of continental drift, you can combine that with the knowledge of the current distribution of cranes and make an attempt at dating crane speciation events," Krajewski said.

Although the technique of DNA-DNA hybridization has been used in recent years to trace the lineage of other bird species, Krajewski's crane project promises to be among the most complete because of the relatively small number of crane species, all of which are conveniently on hand at the Baraboo-based Crane Foundation, a 45-minute drive from Krajewski's UW-Madison laboratory.

Simply collecting raw material for this kind of project, Krajewski said, is often the most difficult part.

By having all of the world's crane species -- including several endangered birds -- in one place, the blood Krajewski needed to complete his crane DNA library was drawn by veterinarians and Crane Foundation staff in one day.

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-- Terry Devitt (608) 262-8282

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 4/26/85

UW-MADISON NEWSBRIEFS

FOUR SENIOR WOMEN HONORED

Four senior women students in the College of Letters and Science at UW-Madison have been given awards by the college for their excellence in academics and community service.

Anne Rumsey, from Custer, Wis., received the $100 Edna Kerngood Glicksman Prize. Glicksman was an early 20th century leader in the state League of Women Voters and the State Federation of Women's Clubs. The prize was established in 1923 by her husband Harry Glicksman, one-time assistant dean in the college.

Janisse Cailles, Jeffersonville, Ind.; Jane Shlaes, Long Grove, Ill.; and Nancy Klein, Sheboygan, all received $500 Louise Troxell Awards. Troxell was Dean of Women at UW-Madison from 1931 to 1956.

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EXHIBIT TO HIGHLIGHT EXPLOITATION OF WILD ANIMALS

"Species for Sale," an exhibit of contraband items made from the pelts, shells, teeth and feathers of wild animals, will open at UW-Madison Thursday (May 2) in Room 123 Noland Hall, 250 N. Mills St.

The exhibit will be open to the public from 9 a.m.-5 p.m. Mondays through Fridays. It is intended to improve public awareness of the illegal trade and

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exploitation of wild animals such as elephants, sea turtles and rare birds.

The exhibit is sponsored by the UW Natural History Museums Council, the U.S. Fish and Wildlife Service and the departments of zoology and wildlife ecology.

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PHYSICS DEPARTMENT AWARDS SENIOR SCHOLARSHIPS

The UW-Madison department of physics has awarded Albert A. Radtke Scholarships to four seniors for outstanding achievement in the study of undergraduate physics.

Awarded $500 scholarships were Douglas R. Burke, Madison; William J. Cummings, Appleton; John M. Schmidt, Plymouth; and Richard A. Wentworth, Green Bay.

The Radtke Scholarships were established by the late Elizabeth S. Radtke as a memorial to Albert A. Radtke, a consulting engineer and UW-Madison graduate.

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EVERT RECEIVES WISCONSIN ACADEMY CITATION

UW-Madison botany and plant pathology professor Ray F. Evert has been awarded a 1985 Distinguished Service Citation by the Wisconsin Academy of Sciences, Arts and Letters.

Evert was cited for his many teaching, research and professional accomplishments. He is a co-author of one of the most widely used textbooks on basic botany.

The Wisconsin Academy was chartered by the state legislature in 1870 to encourage research and disseminate information on arts and sciences throughout the state. Distinguished Service Awards are given to those who have made significant contributions to the cultural welfare of the citizens of Wisconsin.

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uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 3/2/84

CONTACT: Patricia McConnell (608) 262-8058

BORDER COLLIE SUBJECT OF COMMUNICATION RESEARCH

MADISON--A Border collie pup will try to herd just about anything that moves, including wind-up toys.

The communication between an adult Border collie and its owner is so reliable that a trained dog can be told -- by whistles from a shepherd -- to gather an out-of-sight flock of sheep two miles away and bring it home. With similar ease, the dog can handle flocks of 20,000 or more turkeys and large herds of cattle.

This instinctive herding behavior has been bred into the species for countless generations, according to a University of Wisconsin-Madison zoology graduate student, Patricia McConnell, who studies communication between people and dogs.

To communicate, she said, dog and master must be on the "same wavelength." Signals given by a person must be properly understood by the dog. The question for the scientist, she said, is how does the dog know what the shepherd wants?

McConnell recorded the whistle signals used by shepherds from several parts of the United States. When she converted the sounds to sonographs, or electronic pictures of sound, she found some puzzling similarities and differences.

"No matter what shepherd I recorded, the whistles -- commands -- for 'fetch and 'down' sounded and looked the same," she said. "They used ascending, pulsed notes for 'fetch' and one long descending note for 'down,' a

-more-

signal that means 'stop whatever you're doing.'"

At first McConnell thought the similarities might be due to cultural transmission among shepherds -- father to son, neighbor to neighbor. "But the acoustic characteristics for directional signals that tell the dog to change the herd's direction by circling, to the left or to the right, showed no consistencies whatever."

A possible solution struck her while riding horseback. "When I said 'Whoa!' to the horse, I realized that the shepherd's down whistle was acoustically equivalent to the spoken inhibitory signals such as 'whoa,' 'no' and 'down' that we all give to domestic animals. The fetch whistle is equivalent to spoken commands such as 'giddyap' and 'here kitty, kitty' meant to speed up or initiate activity," she said.

McConnell speculates that as man and domestic animal evolved together, certain sounds worked better than others as they communicated with one another. "In a sense," she said, "the animals taught man to use the acoustic signals they instinctively respond to best."

McConnell plans to teach some Border collie puppies the fetch and down commands in reverse. If there is something intrinsically effective about these sounds, she said, the pups should take longer to learn the signals if they are reversed.

McConnell also would like to study commands used by shepherds in other parts of the world to see if the phenomenon she found is cross-cultural.

"Further untangling this communication system," she said, "will allow us to better understand the language of animals and increase our ability to communicate with them. That would benefit both scientists who study acoustics and people who work directly with animals."

McConnell, who studies with UW-Madison zoology professor Jeffrey Baylis, has a young Border collie named Drift. So far, McConnell said, Drift has learned to herd both ducks and sheep.

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-- Jacqueline Kelley (608) 262-8282

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From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 1/29/82 jhs

(Copy of agreement available upon request)

CONTACT: Diane Rausch (608) 263-2378, Helen Madsen (608) 263-7400

UW-MADISON, LABOR DEPARTMENT CONCILIATE AFFIRMATIVE ACTION DIFFERENCES

MADISON--A conciliation agreement on University of Wisconsin-Madison's equal opportunity employment policies and practices has been approved by the U.S Department of Labor, the University announced Friday.

Implementing the agreement will bring the University into compliance with federal affirmative action regulations, said the Labor Department's Office of Federal Contract Compliance Programs (OFCCP).

The agreement was negotiated with the department's Milwaukee area office and signed Nov. 23. It passed a 45-day review period in Washington without objections.

While not agreeing there were any equal opportunity violations, the University did agree to several "remedial actions" in response to deficiencies the OFCCP contended were present in the University's affirmative action program. The Labor Department proposals were based on records and on-site reviews conducted over 18 months as part of the contract compliance office's role as a monitor of federal contract recipients.

Under two of the agreement's 14 provisions, UW-Madison agreed that its English and zoology departments would make annual written reviews of each junior faculty member's progress towards tenure. Another provision requires that the School of Social Work routinely notify traditional minority Ph.D.-granting institutions of its faculty openings.

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Of the 14 areas conciliated, nine involved the University's method of collecting data, doing analyses and reporting on its affirmative action program. The University agreed to make changes in the way it analyzes and reports the work-force, particularly in regard to classified employees and academic staff. In addition, UW-Madison agreed to change its own analyses and reporting in ways that will let it identify more easily where minorities and women are underutilized and thus encourage full use of qualified minorities and women.

In minority recruitment, the University agreed that all "underutilized" departments "will include traditional minority schools (or) schools known to produce a high percentage of minority Ph.D.'s in all faculty recruiting efforts." The Labor Department expressed particular concern that the School of Social Work's faculty did not reflect the 15 percent minority or ethnic group availability in social work. In future hiring, UW-Madison agreed that the school will use such recruiting sources as the National Association of Black Social Workers and the six universities which graduate the largest number of minority doctorates in the field.

Although a specific complaint against the zoology department alleged sex discrimination, the Labor Department noted that the department hired women "at a rate above that which would have been indicated by availability data, which is evidence of good faith efforts in recruitment."

Even so, the federal agency said there were "problem areas" in records and documentation which called for action. UW-Madison agreed that in future faculty recruitment, the zoology department will consult with the campus affirmative action office, send job notices to two women-in-science associations and keep better records.

In the English department, where 78 percent of all tenure-track faculty are women, the Labor Department questioned whether administrative duties carried out by some junior faculty members might be affecting their progress toward tenure. The University said the department already has an ongoing system of mentorship and

career planning for junior faculty, and said the department has committed itself to being "very conscious of (future) administrative assignments to junior faculty."

The Labor Department recognized in the agreement that tenure decisions will stay, as in the past, with the departments, deans, divisional committees, chancellor and Board of Regents. "It is also understood," the agreement said, "that a candidate cannot achieve tenure simply by relying on feedback given to the candidate by his/her department or mentor."

The negotiations involved University administrators in personnel and affirmative action, budget planning and analysis, and legal services. There was consultation with the departments involved in specific issues as well as faculty groups.

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feature story

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: (608) 262-3571

Release: Immediately 4/5/79 cm

(Photo Available)

COURSE TEACHES ZOOLOGY AND ANATOMY--AND FIGHTS BACKACHE

MADISON--Zoology 400 is held in a gymnasium at the University of Wisconsin-Madison.

Why?

So students enrolled in the "Biology of Human Movement" can learn to stop bullying their own muscles.

The professor is M. Deric Bownds, a neurobiologist who is curious about how the nervous system controls movement. He believes that people react to stress in our technological society by cramping up their muscles. This makes them so tense and stiff that sometimes they get headaches and back pains which seem to come out of the blue.

"We misuse our bodies daily," said Bownds. "You often slouch without thinking about it. You just sit over a desk with your head jutting forward and your pelvis sticking out--that alone is enough to give you back pain by the end of the day." Bownds thinks that we can relieve much of this pain if we combine our scientific knowledge of the nervous system with gentle exercises which make us aware of unnecessary muscle tension. (Note to editor: See sidebar on "How to sit without backache.")

The class meets for three hours every Wednesday night in a second floor gym of Lathrop Hall, a facility of the physical education and dance department. Bownds begins each session with a lecture on the physiological background for some principle of movement. After the lecture, the class does two hours of exercises, lying on the floor, slowly moving their torsos, arms and legs. Often the exercises demonstrate some idea in the preceding lecture. -more-

"Usually you either take an anatomy course and look at textbook muscles without relating this information to your own body, or else you take a sport or a dance class and concentrate completely on your movement." Bownds said his approach to "whole body movement" integrates ideas from anatomy, physiology and physical education courses.

Some of Bownds' exercises come from writers who tend to treat relaxed movement more like a mystical experience, "but I stick strictly to what we know, to solid aspects which refer directly to how a human body works. I am not dealing with psychic energies, mystic auras or energy fields."

A UW-Madison molecular biology professor, Bownds also teaches neurophysiology and does research on vision and the process which turns light into a nerve signal in the eye.

One technique Bownds uses in his movement class is called "imaging."

"When you imagine doing an exercise, the blood circulation to the motor cortex of your brain increases and the muscles that would be involved in this excercise also receive increased cirulation--even though you are not moving at all.

"People think that if they just practice a movement 50 times badly that it will somehow get better. It won't," said Bownds. But he suggests that if you can try to imagine doing it "right," then you can sense extra and unnecessary effort that you don't detect when you really do the activity.

A variety of students are taking Zoology 400 this semester: zoologists, molecular biologists, dancers, physical therapists, athletes and some persons with posture problems and minor injuries. The class also includes some Madison community members who have signed up for just the movement exercises through its UW-Extension listing.

What are the benefits of a course like this?

People taking it say that sometimes after the exercises they experience "lightness" or "ease." Bownds thinks this is because they "are not using 10 times more energy just to stand up and walk." But most of all, by learning how to change their daily movement habits, these students are finding out how to stop pushing their muscles around.

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(Sidebar with human movement)

TIPS ON SITTING

Professor Bownds suggests:

1. First, make sure that you sit on a hard chair.

2. Imagine that the "sit-bones" (the ischia) at the bottom of your pelvis are like little feet. Sit as if you are "standing" and balanced on these feet.

3. Rock your pelvis back and forth, supported by those feet.

4. Let your head and neck naturally follow the movement of the pelvis as you rock.

5. Instead of slouching or locking your back, let the torso make small movements like this while you are writing or reading at your desk.

6. Don't lean against the back of your chair. This just lets your neck, stomach and back muscles get flabby. You are moving these muscles gently to make them stronger. Eventually, they will hold you up without complaining to you at the end of the day.

7. Neck stiff? Take a minute to notice which movements are difficult. Push your chin up in the air and let your head fall back as far as it can. If it is tight, stop and imagine the muscles moving as you pretend to let your head fall. After a few minutes of this, try to actually drop your head back--it should be easier to move.

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TEMPORARY NEWS SERVICE LOCATION:
115 Science Hall
550 North Park Street

From The University of Wisconsin-Madison / University News and Publications Service, Bascom Hall, Madison 53706 / Telephone (608) 262-3571

Release: Immediately 9/5/75 rl

SCIENCE LECTURES IN GERMAN LANGUAGE OPEN TO GENERAL PUBLIC

MADISON--A series, "German Lectures in the Biological Sciences," a unique attempt at combining language and science instruction, will be offered this fall at the University of Wisconsin-Madison.

The lectures Thursday at 7:30 p.m. in 132 Noland Hall are open to the general public free of charge. Registered students may earn one credit in either German or zoology.

The Association of Departments of Foreign Languages noted: "It is unique among the more than 1,500 entries received in our curriculum survey to date."

The UW-Madison pioneered in this effort several years ago by offering an introductory botany course in German.

Thirteen lecturers from different departments will give exposure to a variety of regional dialects and accents. Each class will consist of a 40-minute lecture in German, with 20 minutes for discussion in English.

The series will begin Sept. 11 with Prof. Fritz Albert, agricultural journalism, presenting a film and discussing "People, Land and Planning in Wisconsin."

Featured in the series will be Profs. Arthur D. Hasler, zoology, on "How Salmon Find Their Way Home," and John Harkin, soil science, on "Allelopathy: Chemical Warfare Among Plants."

The series will conclude Dec. 11 with Prof. Hugh Iltis, botany, discussing "The Flora of Central Europe."

Information and a complete schedule are available from the German department, 818 Van Hise Hall, 262-2192.

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From The University of Wisconsin-Madison / University News and Publications Service, Bascom Hall, Madison 53706 / Telephone: (608) 262-3571

Release: Immediately 4/22/75 meb

MADISON--A series of lectures for students, faculty, and people from the Madison area who are interested in the biological sciences and understand German will be offered during the fall semester, 1975, at the University of Wisconsin-Madison.

The lectures, by professors in the biological and medical sciences, will be in German and are sponsored by the departments of zoology and German, according to Prof. Charlotte Brancaforte.

Lectures will be Profs. Fritz A. Albert, agricultural journalism; Joachim Von Elbe, food science; Rainer W. Guillery, anatomy; Arthur D. Hasler, zoology and limnology; Hugh H. Iltis, botany; Clifford H. Mortimer, Great Lakes Study Center, UW-Milwaukee; Klaus A. Patau, medical genetics, and Gabriele M. Zu Rhein, pathology.

The lectures are scheduled one evening per week beginning Sept. 15. They are open to the public at no cost but can be taken for one credit in the German or zoology department. People interested in attending should contact Prof. William Burns, zoology, 262-1051, or Prof. Valters Nollendorfs, German, 262-2192.

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Zoology Dept

Release: Immediately 7/19/73 mcg/bb/mn

NEWS BRIEFS FROM THE MADISON CAMPUS

MADISON--The University of Wisconsin-Madison will be host July 26-29 to the first conference in the United States for scholars interested in Indonesian history, politics, economics, anthropology, linguistics, and musicology.

Sponsored by the UW department of East Asian languages and literature, the conference will draw approximately 80 leading American and Indonesian scholars to meetings in Lowell Hall. Special topics to be discussed include the state of Indonesian studies and the problems of Indonesian cities.

Among noted speakers will be Dr. Nathan Keyfitz of Harvard University, and Mochtar Lubis, Indonesian journalist and novelist.

UW experts taking part are Profs. A.J. Little, East Asian Studies; Donald K. Emmerson, political science; Max Carbon, engineering; and J. Howard Westing, business.

An Indonesian dinner, followed by traditional dances of the islands, is scheduled for July 28 in the Center. All interested persons may attend this event, and all meetings.

Further information may be obtained by calling Jean Taylor at 263-3711.

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MADISON--The University of Wisconsin-Madison zoology department will show the film "Zoos of the World" Tuesday at 7 and 9 p.m. in Room 168 of the Noland zoology building.

The film is free and intended for a general audience.

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Add one--News Briefs

MADISON--University of Wisconsin-Madison Arboretum Director Roger C. Anderson is leaving to accept a teaching position at Central State University in Edmond, Okla.

Anderson was in charge of the Arboretum for three years. He was also a botany department faculty member. He will teach undergraduate botany, biology, and plant ecology at the Oklahoma school this fall.

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MADISON--An MFA art show by University of Wisconsin-Madison student, Cynthia Osborne, originally announced for Aug. 1-12 in the Union Theater Gallery has been changed to July 27-Aug. 3. Her prints will be on display in the 7th floor gallery of the UW Humanities building.

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Release: **Immediately**

7/11/73 jo/mn/bb

NEWS BRIEFS FROM THE MADISON CAMPUS

MADISON--A forum by several University of Wisconsin-Madison educators to discuss upcoming action against what they term "scholarly racism" will take place Thursday at 7:30 p.m. in the Memorial Union.

"Scholarly racism" refers to the theories of genetically determined intelligence advanced by such notable behavior scientists as Richard Herrnstein of Harvard and Arthur R. Jensen of the University of California-Berkeley.

Thursday's forum, a threefold effort by the UW Afro-American Studies Department, the Behavioral Cybernetics Laboratory, and the Afro-American Center, is the first in a series of discussions, lectures, and teach-ins designed to oppose the dissemination of the inheritance theory-as-fact.

The national drive in this direction, known as the Committee Against Racism (CAR) is represented by a local chapter led by Prof. Finley C. Campbell, chairman of the Afro-American studies department. Campbell is among the forum's participants, speaking on "Scientism and Neo-Racism: The Scholarly Racists In Action."

Other speakers include Kwame Salter, director of the Afro-American Center; John H. Smith, also of the center; James E. Baugh, director of the UW five-year-program; and Lawrence Schiamberg, assistant research director of the Behavioral Cybernetics Laboratory.

The public is invited and urged to contribute opinions and ideas.

- more -

Add one--news briefs

Zoology Dept

MADISON--University of Wisconsin-Madison journalism Prof. David G. Clark is leaving here after six years to become chairman of the technical journalism department at Colorado State University.

Clark, who leaves for the Fort Collins, Colo., school this summer, also is a former UW-Madison tennis coach.

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MADISON--The University of Wisconsin-Madison zoology department is showing a series of four films Tuesday at 7 and 9 p.m. in Room 168 of the Noland zoology building.

The films are titled "Monkeys of Mysore," "The Mallee Fowl," "Seaweeds," and "Chick Embryo--Life is Born."

The films are free and intended for a general audience.

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Release: Immediately 7/6/73 bb

NEWS BRIEFS FROM THE MADISON CAMPUS

MADISON--Three University of Wisconsin-Madison scientists are among the 62 Americans awarded the North Atlantic Treaty Organization (NATO) Senior Fellowships in Science.

Profs. Charles H. Falkner of the industrial engineering department, Edward G. Lovell, mechanical engineering, and Don D. Reeder of physics will study new scientific techniques and advances in Europe, under a program designed to encourage exchange of information among NATO nations and other participating countries.

Falkner will study at the University of Birmingham, England. Lovell will be at the University of Manchester, England, and Reeder will be in Geneva, Switzerland. The fellowships usually last from one to three months.

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MADISON--The University of Wisconsin-Madison zoology department will sponsor the film, "The Serengetti Shall Not Die", Tuesday at 7 and 9 p.m. at the Play Circle in the Wisconsin Union.

The film deals with the Serengetti Wildlife Preserve in Africa.

It is free and intended for a general audience.

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From The University of Wisconsin-Madison / University News and Publications Service, Bascom Hall, Madison 53706 / Telephone: (608) 262-3571

Release: Immediately 6/22/73 hh/bb/bb

NEWS BRIEFS FROM THE MADISON CAMPUS

MADISON--Washburn Observatory on the University of Wisconsin-Madison campus will open for two additional observing nights per month this summer, the department of astronomy has announced.

During the school year, free public observing sessions have been set for the first and third Wednesdays of each month. Clear weather permitting, they will be held every Wednesday evening from 9 p.m. to 11 p.m. during July and August.

The observatory is located on the UW campus, on Observatory Dr., overlooking Lake Mendota. Entrance is on the south side of the building.

UW-Madison astronomer Blair D. Savage says those attending the observing sessions have been able to see phenomena including the moon, planets, and clouds of illuminated interstellar gas with the aid of the observatory's 15-inch refracting telescope.

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MADISON--The University of Wisconsin-Madison zoology department will show a series of four films Tuesday. The series, including the films "High Arctic Biome," "Tropical Rain Forest," "The Mountain Gorilla," and "Population Ecology," will begin at 7 and 9 p.m. in Room 168 of the Noland zoology building.

The films are free and intended for a general audience.

- o -

MADISON--Prof. Donald W. Crawford has been named chairman of the University of Wisconsin-Madison philosophy department for the next year. He received his Ph.D. from the UW in 1965 and has been on the staff since 1968.

Crawford's main work is in aesthetics and the philosophy of art. He replaces Prof. Haskell Fain.

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uw news

From The University of Wisconsin-Madison / University News and Publications Service, Bascom Hall, Madison 53706 / Telephone: (608) 262-3571

Zoology Dept.

Release: Immediately 6/15/73 mn/bb

NEWS BRIEFS FROM THE MADISON CAMPUS

MADISON--Prof. Ray F. Evert has been named the new chairman of the botany department on the University of Wisconsin-Madison campus.

A faculty member since 1960, Evert is a plant anatomist. His work includes the study of the food conducting tissue (phloem) in trees and translocation in plants.

Evert, who received his Ph.D. from the University of California in 1958, replaces Prof. Grant Cottam, department chairman for the past three years.

ooo

MADISON--The University of Wisconsin-Madison zoology department will show the first of its free six-film summer series next Tuesday. The film, titled "Voyage to the Enchanted Isles," is about the Galapagos Islands and Darwin's theory of evolution. To be shown at 7 and 9 p.m. in Room 168 of the Noland Zoology Building, it is intended for a general audience.

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uw news

From The University of Wisconsin-Madison / University News and Publications Service, Bascom Hall, Madison 53706 / Telephone: (608) 262-3571

Zoology Dept.

Release: Immediately 5/31/73

NEWS BRIEFS FROM THE MADISON CAMPUS

MADISON--Prof. Leonard A. Larson, director of the University of Wisconsin-Madison men's physical education department, recently was cited at the annual meeting of the American College of Sports Medicine.

A founder and past president of the ACSM, Prof. Larson was commended for his efforts as "an administrator, teacher, researcher, author, and international authority on measurement. . . who still finds time to set an example of lifelong participation in healthful exercise."

Two members of the department faculty were elected to offices in the organization. Prof. Francis J. Nagle was named vice president-physiology, and Prof. J. Grove Wolf was elected treasurer of the college.

- o -

MADISON--Dr. William C. Burns has been named zoology department chairman at the University of Wisconsin-Madison beginning with the summer session.

Burns came to the UW as a graduate student in 1952 receiving his Ph.D. in 1958. His main line of work is parasitology--the study of parasite behavior, particularly in animals.

Burns served as department head for four years previously. His predecessor, Dr. Seymour Abrahamson, has been chairman for the last two years.

- o -

MADISON--Prof. Donald E. Thompson will be the new anthropology department chairman this fall at the University of Wisconsin-Madison.

Thompson has been at the UW since 1961, specializing in archeology, ethnohistory of Latin America, culture contact and change, and historical archeology His current research in archeology of the North Central coast and Central Highlands of Peru. Thompson received his Ph.D. from Harvard.

He replaces Prof. David A. Baerreis, chairman for the last two years.

- more -

Add one--news briefs

MADISON--Chairman of nine departments in the University of Wisconsin-Madison School of Education were announced by Dean Donald J. McCarty Thursday.

Approved by Madison campus Chancellor Edwin Young, the chairmen for 1973-74 will be:

Art--Prof. Lavern E. Moll; studies in behavioral disabilities--Prof. LeRoy Aserlind; counseling and guidance--Prof. Gail F. Farwell; curriculum and instruction--Prof. Wayne R. Otto; educational administration--Prof. B. Dean Bowles;

Educational psychology--Prof. John W. Giebink; men's physical education-Prof. Leonard A. Larson; women's physical education--Prof. Muriel R. Sloan; educational policy studies--Prof. Herbert M. Kliebard.

- o -

MADISON--Two University of Wisconsin-Madison journalism students will receive grants-in-aid from the American Newspaper Publishers' Association Foundation next fall.

Wanda Lee Bryant, Louisville, Ky., and Alexis Yancey, Milwaukee, both seniors, will receive aid via the foundation's scholarship program for Negro and other minority journalism students.

The program was initiated six years ago with a $100,000 contribution from the Robert R. McCormick Trust of Chicago.

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From the University of Wisconsin-Madison/University News and Publications Service,
Bascom Hall, Madison 53706/Telephone (608) 262-3571

Zoology Dept. of

Immediately 5/5/72 jb

BUILDING NAMES

MADISON--Two new buildings on the University of Wisconsin-Madison campus were named Friday by UW regents in honor of two recently deceased faculty members--one a renowned leader in the fight against mental retardation, the other a zoologist widely esteemed for his teaching.

The $7.1 million Harry A. Waisman Mental Development Center at Marsh Lane and University Bay Drive will be part of the planned Center for Health Sciences on the west end of the campus. It will include treatment, research, and training facilities as well as a school for mentally retarded children operated by the Madison Public School System. Its research facilities will include a one million-volt microscope, one of seven in the world and the first on a university campus.

The University's new Lowell E. Noland Zoology Building, at the corner of N. Mills and W. Johnson streets, will honor a teacher who served on the faculty for 46 years. He died Jan. 3, 1972. The facility will provide classroom and special equipment rooms for ecology, cytology, zoology, developmental biology, physiology, and microtechnique departments, as well as shop areas, offices, and storage and service space.

A native of Milwaukee, Dr. Waisman was both a physician and biochemist who held four UW degrees. He died in March, 1971, at the age of 58.

Dr. Waisman's areas of specialty were hereditary diseases and chemical causes of mental retardation. He developed the PKU test to detect potential for mental retardation in newborn babies and enabled its prevention in some cases.

- more -

He joined the Wisconsin faculty in 1950.

Born in 1896 in Lee, Ind., Prof. Noland received his bachelor's degree from DePauw University in 1917 and his UW Ph.D. in 1924.

For years he taught courses in introductory biology and invertebrate zoology. He launched biology courses in the Integrated Liberal Studies program, and sat with freshmen and sophomore students in their classes to better integrate his lectures in the ILS sequence.

Prof. Noland served as chairman of the zoology department from 1945 to 1958 and retired as emeritus professor in 1966.

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uw news

From The University of Wisconsin-Madison / University News and Publications Service, Bascom Hall, Madison 53706 / Telephone: (608) 262-3571

Zoology Dept.

Release: Immediately 1/24/72 wf

MADISON--A new course designed to help students make reasonable decisions on ecological and biological issues is being offered by the University of Wisconsin-Madison zoology department next semester.

"Biological Principles and their Impact on Society or an Introduction to Living Things," for non-zoology majors, will cover three main areas.

"We plan to convey an idea of the enormous variety of organisms which co-inhabit the earth and to describe some of their life styles. We will also present the principles of biology and discuss the political and social implications of the scientific advances in biology," Prof. Marion R. Namenwirth, who will teach the course, said.

Enrollment in the course is limited to 200 students, and consent of the instructor is required.

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uw news

From The University of Wisconsin News and Publications Service, Bascom Hall, Madison 53706 • Telephone: (608) 262-3571

Release: Immediately 8/25/70 jb

WITH EXPLOSION

MADISON--A policy relating to status of University of Wisconsin civil service employes whose work place is closed or inaccessible because of the Madison campus blast was announced by Chancellor Edwin Young Tuesday.

Chancellor Young said the affected persons employed in Sterling, Pharmacy, Van Vleck, and Birge halls have three options:

1. Remain at home without compensation.

2. Remain at home and utilize vacation or holiday pay.

3. Report for reassignment this week to other appropriate employment with the University until they are able to return to their regular duties.

"While the present disaster is not of the University's making," the chancellor said, "the policy is established to take into consideration employe needs and concerns."

Chancellor Young said departments would make every effort to utilize the affected employes on a temporary basis, and the funding for their salaries will be dealt with at a later date.

Tom Bull, University personnel officer, said:

"We are trying to find other work for everybody who comes in this week. We are trying to hang on, and then see what the future holds."

Bull said the approximately 80 employes affected, employed in the mathematics, botany, [zoology,] pharmacy, and physics departments, include both clerical and blue-collar workers. These include laboratory and electronic technicians, instrument makers, animal caretakers, a curator, typists, and clerks.

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Zoology, Dept. of

FEATURE STORY

3/5/70

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

RELEASE: Immediately

By VIVIEN HONE

MADISON--There's a population explosion in a population course inaugurated this semester on the University of Wisconsin's Madison campus.

As an astonished assignment committee cut off further registration for Zoology 501 (Human Population Ecology), some 700 persons had been accepted--there to learn more about Homo sapiens and his 20th-century predicament--too many of him, too few resources for the growing number, and the ways in which he has defiled his global home.

"People were lined up and waiting at 7:30 a.m. before the doors were opened," recalled Edward J. Zeimet, committee chairman, "and 50 per cent of all those registering for advanced zoology courses wanted to get in 501."

"We could easily have enrolled an additional thousand," Prof. John J. Magnuson noted. He and Prof. Warren P. Porter planned and are administering Human Population Ecology.

"We want as many people as possible to become aware of the great threat to the survival of our species," Porter said. But at the beginning, certainly, the population bomb in the course was in itself a problem in the academic eco-system.

As originally planned, 501 was a one-credit course requiring attendance at one lecture and one discussion group weekly. But with 700 enrollees, there wasn't enough lecture space nor were there enough discussion leaders to go around. This one course alone required 35 leaders, each handling a group of 20. But without leaders, how could students become sufficiently involved or evaluated?

- more -

Several alternatives, none satisfactory, were considered. Finally a request was made to the committee on grading--and was subsequently granted--that the course be considered an experimental one. Under this plan, any student may enroll, provided capacity has not been reached. And students not majoring in the natural sciences may even satisfy certain science requirements in other fields with 501.

Attendance at the discussion sessions is mandatory if the single credit is to be earned, but requirements end at this point.

There are no exams or papers to be written and no grades to be given. Students may attend, as they please, the lectures at 8 p.m. Tuesdays in 272 Bascom Hall (capacity 537), join the overflow gathering at the same time in 165 Bascom (393), or listen in the comfort of their own quarters, along with the general public, as University Station WHA broadcasts the same lectures at 2:15 on Monday afternoons.

If there are any doubts about lecture attendance under this permissive system, assurance is to be found in the numbers gathered to hear Dr. Paul Ehrlich, Stanford University ecologist and author of "The Population Bomb." One of two off-campus speakers scheduled for 501, Ehrlich drew an audience of more than 4,000 students and others when he spoke on the population crisis Feb. 17.

As might be expected with a subject so wide and complex, the specialists teaching 501 come from widely divergent professions. "Some of the bias of zoology shows through," Magnuson said. "We have more lecturers and discussion leaders drawn from zoology, but we also have experts as well as highly qualified discussion leader volunteers from all over the campus."

John C. Neese, professor of zoology, kicked off the lectures with "Population Growth, History, Present Status, and Models That Don't Fit." Then followed talks by Dr. Ehrlich, Profs. Edward W. Beals, Arthur D. Hasler, and Jack P. Hailman, zoologists.

Other lectures scheduled in the 15-week study this semester:

March 10--"A Place to Live: The Human Niche in Landscape," Prof. Philip H. Lewis jr., landscape architecture; March 17--"A Place to Live: Gross Landscape Changes," Prof. Hugh H. Iltis, botany;

March 19--"National and International Priority in Resource Utilization," Prof. William B. Lord, agricultural economics and director of Resource Policy Studies;

April 7--"Economics of Resource Management," Dr. Victor L. Arnold, specialist, Marine Studies Center; April 14--"Inverted Medical Priorities," Dr. Donn J. D'Alessio, preventive medicine; April 21--"Human Reproductive Capacity and Birth Control Mechanisms," Prof. Roland K. Meyer, zoology;

April 26--"Adoption of Birth Control: Social Barriers and Progress," Prof. Norman K. Ryder, sociology; May 5--"Legal Aspects of Birth Control and Abortion in Wisconsin," Prof. Walter B. Raushenbush, law; May 12--"Political Aspects of Institutional Change," William J. Willis, Milwaukee attorney, and May 19--"Political Aspects of Institutional Change" (lecture II), Prof. James L. McCamy, political science.

Human Population Ecology is not a totally gloom-and-doom undertaking, Magnuson and Porter emphasized: "There are many areas in the human ecological predicament where something can be done about it if we will apply our talents. We want the students to be aware of this and to think about how they can direct their lives toward a vital task."

The originators of 501 credit the students themselves with hastening the advent of the course on the Madison campus and with making it a full-to-overflowing endeavor.

"It became increasingly apparent to us a year ago that instruction in human population ecology was needed," Magnuson added. "We had many requests from zoology students. They and other ecologically-minded campus groups 'sold' the course and are largely responsible for its growing pains."

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NEWS OF THE UNIVERSITY OF WISCONSIN

From the University's Statewide Communications Service, 1752 Van Hise Hall, Madison 53706

Release **Immediately** **11/14/69 jb**

BUILDING PROJECTS

MADISON--Revised preliminary plans for one construction project and concepts for two others on the Madison campus were approved by the University of Wisconsin regents Friday.

Initial plans for the three-story Zoology Classroom Building were originally approved by the regents more than a year ago. It was redesigned to eliminate a second level approach, part of an overhead pedestrian walkway system linking several facilities in the expansion area south of University ave.

With a budget of $3,442,350, the building will be located at the corner of N. Mills and W. Johnson streets, adjacent to the Zoology Research Building. Federal sources will supply $247,861, state funds the remainder.

Concept drawings for Computer Sciences and Statistics Center-Unit II and stage one of the Pharmacy Building also were approved.

The center addition will be joined to the existing structure on the north side of W. Dayton street between N. Orchard and N. Charter streets. To cost $2,471,000, the facility will provide office space, instructional areas, and service units.

The first phase of the new Pharmacy Building, with a budget of $2,700,000, will be erected in the area bounded by University ave., N. Brooks, W. Johnson, and N. Park streets.

- more -

It will provide teaching and research laboratories, administrative areas, and a lecture-demonstration hall. Stage two will be added at a later date, according to present planning.

The regents also:

Authorized preparation of plans for new recreational facilities on the west end of the Madison campus, near University Bay Drive, at a cost of $173,000. Plans outline 12 outdoor tennis courts, basketball half courts, and grading, top soil, and seeding of the area. This will be financed from State Building Trust funds.

Authorized an increase of $116,434 in the schedule of costs for the Humanities Building and Elvehjem Art Center in Madison to provide additional equipment and services not covered in the original budget.

Asked for plans, specifications, and bids for greenhouse facilities at the Arlington Farms, near Madison, the anticipated budget to be paid out of Hill Farm receipts.

Approved the use of two Madison sites for the placement of three re-locatable buildings to provide additional facilities for the UW Medical Center. The sites are at the proposed Medical Center on the West Campus and at the Neurological Rehabilitation Center on E. Washington Ave.

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uw news

Zoology Dept. of.

From The University of Wisconsin News and Publications Service, Bascom Hall, Madison 53706 • Telephone: (608) 262-3571

Release: Immediately 8/22/69

By JOHN WOLF

MADISON, Wis.--Scores of interested people from Madison and Deerfield gathered last week on the John Neath farm in eastern Dane county to watch a million-to-one shot become reality.

A University of Wisconsin team was unearthing the finest skeleton of an extinct, tusked mastodon ever found in the state. And the spectators were impressed.

One of the first bones removed from the bottom of an eight-foot hole was the complete skull--weighing about 175 pounds--of the nine-foot-tall, elephant-like creature.

Zoology specialist John E. Dallman--who was working with graduate students Frank Iwen and Steve VanHorn--pointed out that the skull actually belonged to a fairly young adult.

"The fifth molar of this mastodon was just coming in when it died; by comparison with modern elephants, this would mean that our specimen was about 25 to 30 years old," Dallman explained.

The skeleton itself, however, has been buried for about 10,000 years, Dallman believes. Despite the hundred centuries which have passed since the animal died, most of the bones taken from the mud were in beautiful condition.

- more -

The discovery and successful recovery of this skeleton were described by Dallman as a million-to-one happening. The specimen was located in 1967 after Dallman had unearthed two partial mastodon skeletons on the neighboring Elmer Schimelpfenig farm near Deerfield.

The partial skeletons were found at the bottom of an ancient, dried-up lake. A series of lakes created by glacial action covered much of southeast Wisconsin after the last glacier retreated from the area about 13,500 years ago. The lake basins provided mastodons with food, shelter, and water. Often, one of these seven-ton beasts died in or near a lake, and its bones were deposited on the lake bottom.

Consequently, there are probably several skeletons beneath the hundreds of acres that are now the Neath and Schimelpfenig corn fields, but the problem is to find them. The partial skeletons were found during plowing operations, but the plow damaged the bones.

After recovering those bones, Dallman set out to find deeper, more protected bones by probing acre after acre with thin steel rods. And two summers ago, the Wisconsin zoologist detected a mass of bones eight feet below the surface, just two inches shallower than the length of his probing rods.

Unfortunately, recovery was more difficult than simply digging an eight-foot hole and bringing up the bones. A high water table and a nearby drainage ditch meant that an eight-foot hole would quickly fill with five feet of water.

Dallman solved this problem by tipping a culvert on end and dropping it into the hole. The water was then pumped out of the culvert, and recovery of the bones continued, with occasional stops to bail more water.

Preliminary digging began Monday. Discovery of the skull soon convinced Dallman and his team that they had an important find.

Most of the bones--including skull, leg bones, segments of the backbone, ribs, lower jaw, shoulder blades, and a tusk--were brought to the surface Thursday.

Once exhumed, the bones were quickly washed, labelled, and dunked in casein glue. The glue was used to replace strengthening protein that had been leached from the bones over the centuries in their grave.

The whole process fascinated students and professors from the University as well as townspeople and farmers. Most of the people thought they would never see another operation like it in their lives. But if Dallman has his way, there will be other recoveries of strange animals that lived in Wisconsin after the Ice Age.

Perhaps an even fonder dream of the UW zoologist would be to find some relation between the extinction of these huge creatures and the appearance of early human inhabitants of the state. In fact, the top of the skull of the most recent mastodon is crushed. Even though this damage most likely occurred during the animal's long burial, Dallman and his crew are still hoping beyond hope to find a stone hammer at the site.

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uw news

From The University of Wisconsin News and Publications Service, Bascom Hall, Madison 53706 • Telephone: (608) 262-3571

Research Zoology Dept

Release: Immediately 7/31/69

UIR Science Writing Division (262-5984)

By MARYJO TAKACH

MADISON, Wis.--Two years of tortoise-watching on an uninhabited Pacific island is not everyone's idea of fun and promise.

However, University of Wisconsin graduate student Craig MacFarland is looking forward to the experience while he completes his doctoral research. MacFarland will study the ecology and life history of the Galapagos Islands' giant tortoise, which is slowly becoming extinct.

He and his wife will pitch their tent in the center of an old volcano, called Volcan Alcedo. A national park of Ecuador, the Galapagos Islands are situated approximately 600 miles off that country's coast.

For three months each year, Prof. William Reeder of the Wisconsin zoology department will join MacFarland.

The giant tortoises sometimes have shells more than three feet long. Whalers and pirates of old caught them by the hundreds, taking them on board alive as a fresh food source. They are still occasionally eaten by the inhabitants of the islands, and their food sources are being consumed by wild cattle and goats.

MacFarland will be studying thermoregulation mechanisms of the tortoise and factors concerning clutch (nest) size.

In the first category, he will search for factors which enable the tortoise to control his own body temperature. The tortoise is a cold-blooded

- more -

reptile and therefore takes on the approximate temperature of its surroundings. However, extreme temperatures can affect the life processes and therefore all cold-blooded animals have developed certain behavioral and physiological patterns to combat the extremes.

On the behavioral side, the tortoise may move from shade to sun when it wants to warm up or from sun to shade to cool off. It may even take a swim. In the physiological approach, "panting" or a change in blood vessel diameter may cause the desired change in body heat.

MacFarland noted some of the behavioral factors of the tortoise during a previous trip to the Galapagos made last summer. Now he hopes to observe other factors and to find definite physiological reactions. To test these, he will implant a thermometer in the tortoise to discover reactions in body temperature to changes in solar radiation and wind speed. Because of its great size, MacFarland believes, the tortoise requires a long time to cool off or warm up, therefore resembles, in part, a warm-blooded animal.

By studying clutch size he hopes to find another cause of decreasing tortoise population. For some reason, fewer eggs are hatching and fewer infant tortoises are finding their way out of their underground nests.

MacFarland has theorized that number of eggs in the sand-covered, hole-like nest determines the percentage of young who survive. He states two probable reasons for this.

First, warmth necessary for incubation comes partly from the eggs themselves. Fewer eggs may mean a cooler nest and subsequently later hatching or no hatching at all. Late hatchers, when they finally crawl to the surface, may find the environment unsuitable for survival.

Second, digging out from the clutch is a joint effort by all the infant tortoises. It is also a race against hunger and suffocation. Again MacFarland believes that the small number in the clutch determines the outcome: none will

make it to the surface or, if some do, the infants will be so exhausted they will be easy prey.

MacFarland hopes that upon completion of his research he will be able to make recommendations on the preservation of the species to an international research station located in the Galapagos.

Although these animals were, in distant ages, prevalent on all continents, today they are found only on the Galapagos Islands and islands in the western Indian Ocean.

The Galapagos were made famous in the late 19th century by Charles Darwin. Much of the background for his theory of evolution was based on observations made there. The research station is named for him.

Once the islands became inhabited, they became a world alone. For the tortoise, interbreeding between islands was impossible--for the animals will not swim in salt water. Evolution took its course, resulting in 14 different subspecies of the tortoise, each on a different island. Today two, and perhaps five, of these groups are extinct.

Although MacFarland will work under the auspices of the Darwin Research Station, his research is independently sponsored by the National Geographic Society, National Science Foundation, and the Explorers Club of New York.

Although the complete answer can never be found or man's damage undone, with the help of Craig MacFarland the tortoise may soon enter a new kind of race with the more prolific hare.

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uw
news

From The University of Wisconsin News and Publications Service, Bascom Hall, Madison 53706 • Telephone: (608) 262-3571

Release: Immediately 5/29/69 bi

UIR Science Writing Division (262-5984)

Attention: Sports Editors

MADISON--University of Wisconsin zoologists are asking fishermen to look for "green spaghetti" in the fish they catch this summer in Madison's chain of lakes.

The "spaghetti" noodles are actually tubular plastic tags used to track fish movement in Lake Monona and its sister lakes. Each inch-long tag bears a number and the inscription "UWZOOL" which stands for the University zoology department.

Should any angler land a fish with the green "spaghetti" tag hanging from its back, he is urged to save the tag, carefully note the place, time, and date of his catch, and contact University zoologists William H. Neill (262-3087) or Prof. John J. Magnuson (262-9749), who are conducting the study.

UW crews are now tagging rough and game fish netted along Lake Monona's northwest shoreline from the mouth of the Yahara River to the Madison Gas and Electric (MGE) Company's Blount street power plant. Magnuson and Neill also ask fishermen and boaters to cooperate with the crews during the electroshocking and tagging operations.

The tagging is one phase of a two-year study of the effects of heated water from MGE's plant on Lake Monona fish. MGE and six other Wisconsin utilities are financing the research.

"The success of our research depends a great deal on the cooperation we get from fishermen," Neill said.

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uw
news

From The University of Wisconsin News and Publications Service, Bascom Hall, Madison 53706 • Telephone: (608) 262-3571

Release: Immediately 9/26/68

UIR Science Writing Division (262-5984)

By JOHN WOLF

MADISON, Wis.--A skull of an extinct giant beaver -- which weighed upwards of 500 pounds and stretched to a length of more than six feet -- has been uncovered after a 10,000-year burial on a farm near Madison.

John E. Dallman, zoology specialist at the University of Wisconsin, believes this is the first discovery in Wisconsin of a giant beaver. Remains of this huge animal have been found in all states bordering Wisconsin, as well as in such widely separated places as Georgia and Alaska.

The first remains of the giant beaver, the largest rodent ever to inhabit the earth, were found in Ohio more than 100 years ago. It has since been known to zoologists as Castoroides ohioensis.

The Wisconsin skull was discovered by Orville Fuerdenburg while he was digging a fish pond on the Fred Witte farm three miles southwest of Cottage Grove, Wis.

"It was almost a miracle that he happened to see it," Dallman comments. "Even more fantastic is that he recovered almost all the fragments."

No other bones of the beaver were found, but the skull itself is of special scientific interest because it is in nearly perfect condition after being pieced together. The skull is 12 inches long, compared with the five-inch-length of the skull of a modern beaver.

- more -

Add one--Giant beaver

Present-day beavers weigh about 50 pounds, or one-tenth as much as the extinct giants. Although the two beavers are similar in many respects, the giant beaver was probably not a direct ancestor of the modern beaver.

Scientists believe the huge beaver became extinct between 8,000 and 10,000 years ago, after the retreat of the last glaciers from the northern part of the United States. The vast ponds inhabited by the giant rodents dried up, and the animals rapidly disappeared. As semi-aquatic animals, they were apparently too large to venture across great distances of land to find new ponds.

The Wisconsin specimen was found in material deposited by an ancient lake. Remains of fish, muskrats, turtles, deer and wood were also found at the site, but these may have been deposited hundreds or thousands of years after the death of the giant beaver.

The exact age of the newly discovered beaver may never be known unless more bones are found. At present, Dallman is reluctant to perform a carbon-14 dating of the material because it would mean damaging the skull.

The skull of the giant beaver is on display on the ground floor of Birge Hall on the Madison campus of the University of Wisconsin.

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uw news

From The University of Wisconsin News and Publications Service, Bascom Hall, Madison 53706 • Telephone: (608) 262-3571

Zoology Dept. of

Release: Immediately 10/3/67

UIR Science Writing Division (262-5984)

By JOHN WOLF

MADISON, Wis.--Two mastodon skeletons and one perplexing mystery resulted from a search-and-recovery mission this summer near Madison.

A University of Wisconsin team found and exhumed most of the bones of a pair of the elephant-like animals. However, the thigh bones, hip bones and skulls of both specimens are still missing.

Wisconsin zoology specialist John E. Dallman doubts the bodies were butchered by prehistoric hunters. Why, then, were the largest bones -- the bones most likely to survive burial -- not found with the rest of the skeleton?

The bones of each animal were found in a jumbled pile, indicating the bodies were moved from the place of death.

On the other hand, bones like a hind foot and neck vertebrae of the older animal were still joined when dug up. This evidence suggests that the bodies had not completely decomposed before they were buried.

From these clues, Dallman theorizes that the animals died near the shore of a lake, perhaps some 8,000 years ago. The ancient lake is now a cornfield on the Elmer Schimelpfenig farm, 17 miles east of Madison. Mastodons have been extinct for at least 6,000 years.

As the bodies decomposed, a small river flowing into the lake carried lighter chunks of bone and flesh onto the shell-and-clay lake bottom. Heavier parts of the carcasses remained along the river, he believes.

- more -

Finally, the bones were covered with remains of dead plants as the lake became a bog.

If this theory is correct, the larger bones might be found "upriver" along a stream that no longer exists. To find the ancient riverbed, Dallman studied soil core-samples from the cornfield and was able to pinpoint a likely location for the river's mouth.

In August he probed the area of the theoretical riverbed with long steel wires but has not yet located the missing bones. The mystery remains unsolved.

If these large bones are not found, Dallman doubts that the skeletons can be reconstructed.

The bones will still be useful, however, for laboratory courses in comparative anatomy and osteology. "It will be good experience for students to be able to study bones of these extinct animals," Dallman points out.

"We hope that interested people would relay possible information on mastodon bones to the zoology department," he adds.

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uw
news

From The University of Wisconsin News and Publications Service, Bascom Hall, Madison 53706 • Telephone: (608) 262-3571

Release: **Immediately** 5/26/67 mcg

MADISON--Appointments of new chairmen for departments in the University of Wisconsin College of Letters and Science were announced Friday by Dean Leon D. Epstein.

Following the usual faculty procedure, members of each department voted for their choice of chairman and Dean Epstein made the formal appointment.

Serving for the 1967-68 academic year will be the following:

Prof. Lyndon P. Harries, African Languages and Literature, succeeding Prof. Emile Snyder;

Prof. Irving Shain, chemistry, for Prof. J. D. Ferry; Prof. Stephen G. Nichols, comparative literature, for Prof. Richard B. Vowles;

Prof. Erwin N. Hiebert, history of science, for Prof. Robert Siegfried; Prof. Lyle H. Horn, meteorology, for Prof. Robert Ragotzkie; and Prof. William C. Burns, zoology, for Prof. L. A. Fraser.

Millard Rogers was officially appointed to head the Elvehjem Art Center to be built on the lower campus; Prof. Claude S. Hayes was named chairman of the newly formed department of communicative disorders, formerly a division of the speech department; and Prof. Gerald C. Gerloff was named to head the Plant Development Institute.

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uw
news

From The University of Wisconsin News and Publications Service, Bascom Hall, Madison 53706 • Telephone: (608) 262-3571

Release: **Immediately** **3/14/67 jb**

ROUNDUP

MADISON, Wis.--"Computer-Aided Will Drafting," an entirely new field in the legal world, will be the subject of a presentation by a University of Wisconsin faculty member in New Orleans April 6-8.

Richard W. McCoy, an instructor and director of the School of Business Data Processing Center in Madison, will speak before the American Bar Association's National Conference on Law Office Economics and Management.

- o -

MADISON, Wis.--History Prof. George L. Mosse, University of Wisconsin at Madison, will present a paper on "Fascism and the Intellectuals" at the First International Conference on Fascism at the University of Reading, England, April 3-4. The session is sponsored by the university's Graduate School of Contemporary European Studies.

- o -

- more -

Add one--Roundup

Zoology Dept.

MADISON, Wis.--Two fellowships have been awarded to University of Wisconsin professors of English by the National Endowment for the Humanities.

Prof. Chauncey D. Wood received the organization's summer fellowship, and Prof. James W. Tuttleton its fellowship for younger scholars.

- o -

MADISON, Wis.--Dr. John W. Kanwisher of the Woods Hole (Mass.) Oceanographic Institute, will address the Zoology meeting on the Madison campus of the University of Wisconsin Friday, March 17. The session will be held in Room B302 Birge Hall, starting at 3:40 p.m.

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NEWS FROM THE UNIVERSITY OF WISCONSIN
Statewide Communications Service, 10 Bascom Hall, Madison, 53706

3/10/67 jb

RELEASE Immediately

CAMPUS BUILDINGS

MADISON, Wis.--Final plans for the University of Wisconsin's new College of Engineering Research Building in Madison were approved by the UW regents Friday.

The 14-story, $5,825,000 structure will be located adjacent to, and southeast of, the Mechanical Engineering Building.

Donald H. Sites, associate director of University planning and construction, said the building would be the first to orient the engineering campus toward a central plaza, away from University Ave.

The National Science Foundation is providing $1,213,688, the U.S. Office of Education $1,058,957, the Wisconsin Alumni Research Foundation $185,089, and state funds the remainder.

Construction is expected to get underway before July and be completed in 24 months.

The building will house 72 laboratories, 125 offices, and a number of shop areas. Research will be conducted in such areas as plasma physics, air pollution, solar energy, and energy conversion.

Three floors will be devoted to automotive and instrumentation laboratories.

The construction will be reinforced concrete frame, with masonry and precast concrete facing, to match adjoining structures.

- more -

The regents also approved initial plans for the Zoology Classroom Building, planned for the corner of N. Mills and W. Johnson streets, adjacent to the Zoology Research Building on the Madison campus.

A three-story $3,190,000 reinforced concrete unit, the building will house classrooms, lecture rooms, laboratories, and offices.

The department of planning and construction noted this would be the first facility to incorporate second level pedestrian walkways to lead into the plaza area and eventually link the academic and housing facilities south of University Ave.

Construction on the structure is expected to start in November, with a completion goal of August, 1969.

State funds will provide $2,942,139, federal funds $247,861.

In other action, the regents accepted recommendations that the following additions and changes in designations of roads on the Madison campus be approved:

The road extending from University Bay Drive west to and through the grounds of University Houses be named Haight Road, after the late George I. Haight, noted UW alumnus and benefactor, and Chicago attorney.

A portion of Linden Drive West extending easterly from Walnut St. to west of University Bay Creek, together with the road extending southerly from the latter point to the High Energy Physics Laboratory, be changed to Herrick Drive, after the late Dr. Chester A. Herrick, professor of zoology and veterinary science for 28 years.

The road extending westerly from the intersections with Elm Drive, north of the beef cattle barn, to the east side of University Bay Creek and then northerly to Observatory Drive, to be designated Linden Drive West.

The name Creek Lane, previously given to the since vacated road on the west side of University Bay Creek, to be deleted from the list of names for Madison campus roads.

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NEWS FROM THE UNIVERSITY OF WISCONSIN
Statewide Communications Service, 10 Bascom Hall, Madison, 53706

12/9/66 jb **RELEASE** Immediately

BUILDING PROJECTS

MILWAUKEE, Wis.--Revised concepts of four Madison campus building projects were outlined to the University of Wisconsin regents, meeting in Milwaukee Friday.

Initial plans for the structures--an undergraduate library at 600 N. Park st., Communications Arts, Zoology-Education Sciences, and Wisconsin Union-South--were approved by the regents.

Construction on the various projects is expected to start by next summer and be completed within two years. The total cost will be $26,707,000. The projects:

--600 N. PARK--

This eight-story complex will house the undergraduate library, with space for 107,000 volumes; a two-level parking facility for 250 cars; and office and classroom space for the English and philosophy departments. The revised budget specifies expenditure of $7,396,000, with $1,840,000 from grants and gifts, $4,919,000 from state appropriations, and $637,000 from self-amortizing funds. Facilities will include study areas, seminar rooms, service areas, administrative offices, conference rooms, and a cooperative children's book center.

- more -

--COMMUNICATIONS ARTS--

Located in the block bounded by University ave., N. Murray, N. Park, and W. Johnson sts., this building will house the School of Journalism, speech department, division of radio-television, and offices of the Daily Cardinal, student newspaper. The cost was placed at $9,625,000, with $7,125,000 from state funds and the remainder from gifts and grants. The seven-story structure will provide teaching theatres, study areas, offices, workrooms, laboratories, studios, rehearsal and storage space, a photo darkroom, and space for auxiliary services.

Plans include overhead pedestrian walkways across W. Johnson and University ave. and a walk-through connection with Southeast dormitories. Contemplated is a private fund-raising campaign to raise $1 million for an 800-seat theatre, which could be added to the complex.

--ZOOLOGY-EDUCATION SCIENCE--

This two-part complex, to be built in the east half of a block bounded by W. Johnson, W. Dayton, N. Mills, and N. Charter sts., will consist of separate but adjoining facilities for zoology and education sciences, plus an overpass across W. Johnson. A state appropriation of $5,120,000 will be requested, with the remaining $1,700,000 needed sought from gifts and grants. Teaching areas, classrooms, laboratories, offices, lecture rooms, research and service areas are included in the plans for the three-story units.

--WISCONSIN UNION-SOUTH--

Like the other projects, a branch union is planned to meet needs of an expanding campus population. It will be located in the block bounded by W. Johnson, W. Dayton, N. Randall, and N. Orchard sts., and cost $2,896,000. Construction and operation are to be financed by student and faculty-staff fees and operating income. Plans include space for dining and food service, games and activities, lounge and public areas, administrative offices, services and storage.

A "campus-level" concept, consisting of a series of elevated walkways and plazas to carry people over crowded streets and railroad tracks, is an integral part of this project.

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U.W. NEWS

From The University of Wisconsin News and Publications Service, Observatory Hill Office, Madison 53706

Telephone (Area Code 608) 262-3571
8/6/65 mes

Release:
Advance for PMS Wednesday, Aug. 18

JOINT MEETINGS OF BIOLOGICAL SOCIETIES
sponsored by
THE AMERICAN INSTITUTE OF BIOLOGICAL SOCIETIES
University of Illinois - Urbana, Illinois

"Hawk navigation evidence from migration observation and band recoveries"
Dr. Helmut C. Mueller, Project Associate, Department of Zoology, University of Wisconsin, Madison

URBANA, Ill.--(Advance for PMS Wednesday, Aug. 18)--Some birds are remarkably accurate in finding their way "home" even over long distances of unfamiliar territory. A few can--and do--migrate from the same backyard in a South American country to the same backyard in Wisconsin year after year.

Very few birds, however, and probably few animals, are able to accomplish such a feat in a short period of time. In other words, they are not very efficient "homers." Yet many of these species of apparently poor homing ability migrate between the same, distant summer and winter homes twice annually. How do they do it?

Studies on hawks indicate that these birds find their breeding areas by a "hit or miss" method, according to an hypothesis presented at the 16th annual meeting of the American Institute of Biological Sciences. Dr. Helmut C. Mueller of the University of Wisconsin department of zoology explained that hawks probably use an indirect and inefficient method of homing from winter home to summer home.

For the past 15 years he has studied hawk migrations in the spring on the western shore of Lake Michigan. There, at the Cedar Grove Ornithological Station north of Milwaukee, Wisconsin, more than 4,000 hawks of 15 species have been captured and studied since 1950. This station is unique in the United States and probably in the world for its complete records on hawk behavior.

-more-

Since hawks are reluctant to fly over large bodies of water, they are concentrated in large numbers along the Lake Michigan shore as a result of displacement by westerly winds.

During his observations on hawk behavior, the Wisconsin scientist noted an unusual fact: only six of every ten hawks were northbound, the normal migratory direction in spring. The other four were headed south, in reverse migration.

"This situation puzzled us for many years," Dr. Mueller, a project associate, said. "We now believe at least some of the southbound birds are reorienting, or searching for, summer homes to the south or east of Cedar Grove." He was assisted by Daniel Berger of the Cedar Grove Station in the research.

Thus the two hypothesize that many of the southbound birds observed in the spring have either over-shot their breeding area or been displaced laterally, and by flying south are hunting for their home areas. Up until now there has been no explanation of why birds show these abnormal migratory directions.

Besides observing the flight direction of hawks, scientists at the ornithological station have banded 750 hawks with U.S. Fish and Wildlife Service tags. Of those later recovered, all the southbound birds were found south or southwest of Cedar Grove or in lower Michigan, east of Lake Michigan.

"It appears that the navigational system these birds use is not very efficient," Dr. Mueller explained. "The results of our research, conducted in the field, do not agree with laboratory studies on songbirds, which indicate birds can navigate with fairly high accuracy.

"Our data seem to indicate that there is considerable inefficiency in the orientation system used by hawks in spring migrations," he concluded.

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U.W. NEWS

From The University of Wisconsin News and Publications Service, Observatory Hill Office, Madison 53706
Telephone (Area Code 608) 262-3571

Release:
Immediately

6/23/65 mes

By MARLETTE SWENSON

MADISON, Wis.--Dragonflies, the most agile acrobats of the insect world, are helping a University of Wisconsin scientist learn more about how animals see.

These flighty denizens of streams and lake shores, now emerging from an aquatic nymph life for an adult life in the air, are especially favorable for such studies because of their huge eyes with large cellular components, Dr. Philip R. Ruck, professor of zoology, explains.

He is studying the eyes of the dragonfly, both adult and nymph, for their sensitivity to light and their ability to discriminate different colors. What he finds may someday help a medical student comprehend the corresponding mechanisms of the human eye.

Insects have large compound eyes with thousands of separate transparent "windows" or facets. Under each facet is a cluster of light-sensitive receptor cells, analogous to the retinal rods or cones of the vertebrate eye. The eye of the dragonfly has more of these facets, from 10,000 to 20,000 in each compound eye, than any other insect, Prof. Ruck points out.

No two kinds of animals see the world through the same "glasses". Man, with his technicolor vision, normally sees the whole range of colors in the visible spectrum from violet to red. His retinal cones are of three types, one of which is most sensitive in the blue, another in the green, and a third in the yellow. Stimulation of these three types of retinal cones in various proportions leads to our appreciation of different colors in the world about us.

-more-

Prof. Ruck, a sensory physiologist, has found that the dragonfly's different eyes, and even different regions of the same eye, contain different combinations of receptor cells.

Ocelli, the nymph's three simple eyes which remain in the adult, are most sensitive to two different regions of the spectrum -- ultraviolet light, which we cannot see, and blue-green light. The electrical responses to ultraviolet light of the nerves leading from the ocelli to the dragonfly's brain are different from the responses to blue-green light.

"This proves there are at least two different kinds of receptors in these eyes," Prof. Ruck says.

In contrast, he found that the dorsal part of the adult's compound eye is most sensitive to violet light and probably has only one kind of receptor. The ventral part of the same eye has three receptor types, most sensitive in the ultraviolet, the blue-green, and the yellow.

The compound eye of the nymph differs strikingly from the compound eye of the adult. The nymphal eye contains two receptor types, most sensitive in the violet and in the green. During the one to three years it spends under water the nymph is as dependent as the adult upon its compound eyes for capturing food.

"However, when the nymph undergoes its final metamorphosis to become an adult it discards this eye," Prof. Ruck explains, "and it eventually becomes just a wrinkled mass of tissue in back of the adult eye."

The dragonfly's adult life is spent in the air. These insects are so modified for a flying life that they can no longer walk, the zoologist says. They catch their food, recognize their mates, mate, and even drop their eggs onto the water while flying.

"Even alighting on twigs does not represent a simple visual feat," he explains. "They have to have pretty good form vision to accomplish this seemingly simple trick."

Add two--Ruck

While flying the dragonfly depends largely on the ventral part of its compound eye, which covers the terrain in front, sideways and down. This part of the eye has three different kinds of receptors and, very likely, color vision.

Now that the Wisconsin scientist knows a little more about each part of the dragonfly's complicated visual system, he will undertake behavioral studies to determine what the dragonfly can do with the receptor apparatus it has.

He and John Dallman of the zoology department are making a large model of a dragonfly eye to mimic the real eye's functions. The scientists will put colored filters in this model eye to correspond with the different receptors in the various regions of the eye to determine how the insects see differently colored objects.

It may be that the reaction patterns which emerge from studies on real eyes and model eyes of dragonflies will apply to higher species as well. Prof. Ruck recently received a grant from the Air Force Office of Scientific Research to further his studies on the perception of ultraviolet light by the dragonfly. The National Science Foundation supports his other projects.

Don't ignore the dragonflies you see on your next fishing trip; they may have contributed more toward the benefit of mankind than you previously thought.

###

NEWS FROM THE UNIVERSITY OF WISCONSIN

Serving the state through campuses at Madison and Milwaukee, nine University Centers, and a statewide extension system.

2/5/65 jb

RELEASE Immediately

MILWAUKEE--Fourteen contracts with federal agencies, including a National Aeronautics and Space Administration allocation of $285,000 to the University of Wisconsin Graduate School, were approved by the University regents Friday.

The NASA agreement continues support of 15 full-time predoctoral students in the areas of space-related sciences and technology.

The contracts, which totaled $927,892, call for various services to be performed by University departments.

The contracts, amounts, and departments:

U.S. Air Force, $42,483, with the sociology department; Navy, $3,570, astronomy, $30,000, zoology, and $5,629, naval science;

Weather Bureau, $4,800, soils department; Office of Education, $3,000, German, Spanish-Portuguese;

Atomic Energy Commission, $250,000, physics, $55,884, nuclear engineering, $35,000, radiology, and $23,440, genetics;

Office of Naval Research, $92,000, meteorology; and Geological Survey, $68,050, to support ground water investigations by the state geologist.

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U.W. NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

1/19/65 jb RELEASE: Immediately

MADISON, Wis.--The University of Wisconsin is currently the recipient of 17 different grants from the Ford Foundation totaling over $6.3 million.

In its annual report, the foundation listed the various projects, ranging from the University's Biotron to graduate and faculty fellowships to projects in Indonesia.

The foundation provided $1.7 toward construction of the Biotron, a new research structure designed for studies of living organisms in a full range of controlled environmental conditions. Construction began on the Biotron, located on Observatory Drive in Madison, late last fall. It is expected to be completed in 20 months.

Another $1.5 million was allocated for specific research and advanced training in population studies.

In listing a $260,000 grant for the Wisconsin Law School, the foundation stated that the UW is one of the few schools in the world with a tradition of scholarly attention to police and correctional phases of the law. The grant is being used to expand research and training on relations between the law, lawyers, and criminal law enforcement agencies.

A recent grant brought $820,000 for the establishment at Madison of a research center on vocational education, the five-year program to employ resources of all University divisions to analyze the state of occupational training and to work on such problems as teacher preparation and curriculum development.

-more-

The other projects involving the University of Wisconsin include:

A cooperative program in economics between American and Indonesian universities, $155,000, and for cooperative work with the Gadjah Mada University faculty of economics in Indonesia;

A $250,000 allocation for research and evaluation of urban community development projects, and to train urban affairs specialists; with the department of zoology, to produce new knowledge and provide training areas for future personnel in this field;

A grant of $3.5 million, with four universities sharing, to carry on the Midwest Universities Consortium for International Activities, to expand and improve the members' international teaching, research, and service roles;

In the area of economic development and administration, $134,000, for research on computer simulation of the national economy; and $90,000 for a study on the use of the nation's manpower, this in the area of development of human resources.

For UW science education in Arab countries, $141,000; graduate training in atmospheric science and oceanography, $16,030; forgivable loans to doctoral engineering students committed to teaching careers, $51,644; for scholarly publications in the humanities and social sciences, $20,000;

For fellowships in economics and business studies, $39,847; plus grants for faculty fellowships in business, economics, government, and psychology, and for doctoral candidates in economics.

Established in 1936, the Ford Foundation is a private, non-profit institution which has made total grants of $2.2 billion to 5,261 institutions and organizations. It seeks to strengthen American society by identifying problems of national importance and underwriting efforts toward their solution.

###

NEWS FROM THE UNIVERSITY OF WISCONSIN

Serving the state through campuses at Madison and Milwaukee, nine University Centers, and a statewide extension system.

1/8/65 jb

RELEASE Immediately

MADISON, Wis.--Gifts and grants of $2,004,553, including $1,105,457 from federal agencies and 29 contributions from Wisconsin sources, were accepted by the University of Wisconsin regents Friday.

The largest amount, $700,000, came from the Ford Foundation, New York, to expand and strengthen the University's training and research program in Latin America.

In 1962 the University received $1,200,000 from the foundation and $1,250,000 from the Agency for International Development to undertake an intensive study of agrarian structure and land ownership and tenure and to further international understanding in Latin America.

The Johnson Foundation, Racine, allocated $10,000 to continue support of the UW Center for Productivity Motivation in the School of Commerce. Another $350 for the same purpose came from the Mautz Paint and Varnish Company Foundation, Madison.

The National Science Foundation provided $64,700 to support a summer institute in physics for secondary school teachers at the University of Wisconsin-Milwaukee, and $45,800 for a Madison campus project titled "Research Participation for High School Teachers," under direction of the department of zoology.

The National Institute of Health made a grant of $200,000 for an interdisciplinary study in climatology.

-more-

Add one--gifts and grants

"In recognition of the superior quality of engineering instruction and training in the University of Wisconsin mechanical engineering department," the Ford Motor Company Fund, Dearborn, Mich., contributed $5,000 to be used at the discretion of the department in enriching its programs. The donor said this would be the first of three such annual allocations for this purpose.

Gifts from Wisconsin sources included two totaling $4,000 from the Harry J. Grant Foundation, Milwaukee, for scholarships and the proposed Elvehjem Art Center; and $386 from the Mineral Point Community Chest and $380 from the Lancaster Community Chest for medical research.

Lloyd A. Kasten, professor of Spanish and Portuguese at Madison, contributed $1,800 for publication of studies prepared at the University's Seminary of Medieval Spanish Studies. Prof. Gordon E. Bivens, UWM economics, made an initial gift of $150 for programs in the field of consumer affairs.

Other gifts from Wisconsin organizations for scholarships and research included:

From the Alma G. Hall Foundation, Milwaukee, $500; the Frank Rogers Bacon Foundation, Milwaukee, $7,032; Lee's Drug Store, Menomonie, $250; Otto L. Kuehn Co., Milwaukee, $300;

Milwaukee Internists' Club, $200; Wisconsin County Fairs' Association, $1,000; Madison General Hospital, $175; and securities valued at $5,165 from Allen J. Shafer, Madison.

##

U.W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

12/4/64 ms

RELEASE: AMs of Monday, Dec. 7

By MARLETTE SWENSON

MADISON, Wis.--(Advance for AMs of Monday, Dec. 7)--A class bell rings on the University of Wisconsin campus, but instead of a professor striding into the room a student gets up and turns on a television set.

Is this modern education?

It is not only modern but it is a much better method of learning than the customary college lecture, says a Wisconsin professor who is conducting the television course.

The course is Zoology 125, a one-semester Wisconsin experiment in educational television. Its aim is to determine whether television teaching can reach more students and teach them more effectively than the traditional lecture method.

"I think it does both," Dr. Donald H. Bucklin, Wisconsin zoology professor in charge of the course, states emphatically.

"There has been a lot of concern recently about maintaining a high quality of instruction in spite of ever-increasing numbers of students on the campus," Prof. Bucklin said. "Perhaps the population explosion will make us use the visual aids we should have used all along in our teaching."

The 144 students taking the television course in zoology are divided into eight sections of 18 each--considered by many teachers the ideal class size. Each section meets three times a week for Prof. Bucklin's televised lecture and twice for a laboratory section--one on film and the other "live."

-more-

A visitor quickly notes that a student's attention rarely wanders from the television screen. No attendance is taken, but spot checks show that absenteeism is no problem.

"Most students like the course, and it moves too fast to let you daydream," Joan Entringer, a senior from (1107 Magnolia Ave.) Manitowoc.

Some critics of television teaching contend it is too impersonal. Prof. Bucklin disagrees completely.

"Television is intensely personal," he declared. "I feel much more removed from the students in a large lecture than I do on television."

The Wisconsin professor points out that in a television lecture he can bring a student right into a laboratory with him, even look through a microscope with him.

"By taping lectures in advance I have the time to assemble and use a wide variety of visual aids to interpret lengthy and complex experiments which would be difficult indeed to demonstrate in a lecture," Prof. Bucklin said.

Prof. Bucklin also rejects the argument that students cannot ask questions of a television screen.

"Every class meets with a 'live' teacher once a week," he points out. "And any student with a question can come to my office any time."

He also pointed out that few professors lecturing to a large class are able to interrupt their presentations for questions, but require students to see them after class.

Carolyn Busse, a student from (4114 Birch Ave.) Madison, noted that the class gets very personal some days.

"Sometimes Dr. Bucklin sits in on his own lecture," she said. "We usually are too busy taking notes to notice he's there--even when he laughts at his own jokes."

Prof. Bucklin believes that television can be used to teach a thousand students as easily as a hundred and enable a teacher to do a better job.

"In a single course we could have specialized television lectures prepared in advance for particular groups--pre-med students, physical education students, or science majors for example," he said. "We could even have some zoology lectures taped for all those liberal arts students who say they hate zoology too much to learn anything from it."

Despite his enthusiasm for television teaching, Prof. Bucklin still believes such courses should be optional.

"In general science courses, I think classes taught by television are better than those taught by conventional methods," he said. "In other areas, however, the opposite may be true."

The pilot television course is sponsored jointly by the zoology department and WHA-TV.

##

Zoology Dept.

NEWS FROM THE UNIVERSITY OF WISCONSIN

Serving the state through campuses at Madison and Milwaukee, nine University Centers, and a statewide extension system.

11/2/64 jb

5 p.m. Monday, Nov. 2

MADISON, Wis.--The University of Wisconsin Kemper K. Knapp Bequest Committee told the University faculty Monday that this is a critical time for the committee to make every effort to help improve the standards of undergraduate education and good citizenship.

Increasing enrollments represent the biggest factor in this effort, the committee noted.

Activities during the past year included a new program of experimental television via a lecture course in zoology under the guidance of Prof. Donald H. Bucklin.

Inaugurated this year was a training session to improve the quality of instruction by teaching assistants. Funds for this work were allocated in six Madison campus departments and four on the University's Milwaukee campus.

The committee reported expenditures of $224,344 in 1963-64 academic year. A total of $108,674 went for undergraduate and law scholarships, while $67,271 was allocated for graduate fellowships. An additional $24,632 supported two visiting professorships--Prof. J. Eric Thompson, anthropology department at Madison, and Paul Goodman, UWM department of urban affairs.

In the 1964-65 academic year the total Knapp Committee budget was set at $267,500.

In the current academic year the funds allocated for undergraduate and law scholarships has been increased to $120,500. Included is $9,000 to provide scholarships for the University's Junior Year in France and Germany, and in Spain when that program gets underway.

-more-

Add one--Kemper Committee/faculty

Members of the committee include, from the Madison campus, Profs. David A. Baerreis, anthropology, chairman; Andrew H. Clark, geography; Robert L. Clodius, UW vice president; and Philip D. Curtin, history; and from UWM, Prof. George Goundie, art and art education.

At the close of the 1963-64 fiscal year, the Knapp fund totaled $4,337,233, an increase of $31,965 over the preceding year.

This fund has supported major loan and scholarship programs and other activities since Kemper K. Knapp, prominent Chicago attorney, died in 1944 and left his estate to the University. He received his B.A. at Wisconsin in 1879, the bachelor of laws in 1882. The University conferred on him the honorary degree of Doctor of Laws in 1930.

##

U.W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

6/23/64 mcg

RELEASE: Immediately

MADISON, Wis.--The University of Wisconsin department of physical anthropology has been awarded a five-year grant amounting to more than half-a-million dollars to help expand the program of training graduate students.

Of the total sum, $216,722 comes from the National Institute of Dental Research and $341,204 from the General Medical Sciences section of the National Institutes of Health, and will be used by the department in cooperation with the departments of zoology and medical genetics.

The fund will provide tuition and stipends for 10 predoctoral students and one postdoctoral student in anthropology, which is the science of man, or human biology; a six-months research leave for one professor; half-salary for one professor, salary for a technician and a secretary; visiting lecturers; and travel money to help professors and students attend scientific meetings.

According to Prof. William S. Laughlin, noted UW anthropologist who will take part in the program, the fund will enrich the department to the extent that students will be able to get as wide a background in the area as is offered by a number of other universities.

"It will enable us to bring to the campus Dr. R H. Osborne, noted for his studies of twins, who will have a joint appointment in anthropology and medical genetics; to do more basic research; and to benefit the undergraduates, as it is one of the conditions that students accepting the stipends do a certain amount of teaching he adds.

Also included in the provisions of the grant are electrophoreses equipment, microscopes, cameras, and additions to the department library.

Taking part in the program, in addition to Profs. Laughlin and Osborne, are Dr. C. M. Otten of physical anthropology and Dr. J. T. Robinson of anthroplogy and zoology.

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WIRE NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

5/8/64 jb RELEASE: Immediately

MADISON, Wis.--Twelve contracts with federal agencies for services to be performed by University of Wisconsin departments, totaling $382,539.33, were approved by UW regents Friday.

The contracts include one of $94,411.50 with the National Aeronautics and Space Administration (NASA) for the UW Space Astronomy Laboratory in Madison to develop research on a satellite-borne instrumentation system.

Four contracts are with the Atomic Energy Commission: with the physics department, $45,000; Institute for Enzyme Research, $30,000; chemistry, $11,748; and zoology, $18,245.

Other contracts, amounts allocated, and departments assigned to the various projects:

With the Agency for International Development, $55,000, Agricultural International Program; Office of Naval Research, $42,155, statistics, and $36,026, journalism; U.S. Army, $23,100, plant pathology;

NASA, $19,999.74, Space Astronomy Laboratory; Department of the Interior, $2,300, state geologist; and Armed Forces Institute, $4,554.09, Extension Division.

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Zoology Dept.

U.W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

5/8/64 jl

RELEASE: Immediately

MADISON, Wis.--An outstanding example of a maple-basswood forest to be used for study and research by University of Wisconsin scientists has been acquired as a result of action by the UW regents Friday.

The woods is known as Abraham's Woods and is located in the township of Albany in Green County, Wisconsin. It was obtained for the University from The Nature Conservancy, an organization for the preservation of natural areas, for $2,000.

The sum required for the purchase was charged against the income from the John J. Davis Trust fund.

The woods is situated on a 40-acre tract and is one of the largest examples of a maple-basswood forest still remaining in southern Wisconsin.

"Maple-basswood stands are considered to be the climax, or terminal, forests of the region," Grant Cottam, professor of botany, pointed out in describing the wooded area.

"In many ways they are the most magnificent forests we have. They have the greatest vegetational complexity and, since they are the end point toward which succession in this region trends, they are an important standard against which other forests and the effects of man's disturbance can be assessed," Cottam said.

He added that the wooded tract is an important addition to the University's areas available for study and research in botany, zoology, and other biological sciences.

##

Zoology 125

General Zoology (TV)

SHOWING SCHEDULE FOR PILOT GROUP

Spring semester - 1963-64

UNIT I CELLS

Week 1. Cell structure

			Program Number
M Feb. 3	Lect. Dem.	The electron microscope	1
M Feb. 3	Lab. Dem.	Nuclear control of cell activity	3
Tu Feb. 4	Lab. Disc.	Dissection of ameba	
W Feb. 5	Lect. Dem.	History of the cell theory	2
F Feb. 7	Lect. Dem.	Cell structure	4

Week 2. Cell division

M Feb. 10	Lect. Dem.	Cell division I. The strategy	5
M Feb. 10	Lab. Dem.	Microtechnique	7
Tu Feb. 11	Lab. Disc.	Cell variety	
W Feb. 12	Lect. Dem.	Cell division II. The tactics	6
F Feb. 14	Lect. Dem.	Origin of life I. Fermentation	8

Week 3. Cell metabolism

M Feb. 17	Lect. Dem.	Origin of life II. Aerobic metabolism	9
M Feb. 17	Lab. Dem.	Biochemical research techniques	11
Tu Feb. 18	Lab. Disc.	Biochemistry	
W Feb. 19	Lect. Dem.	Molecular structure and function	10
F Feb. 21	Lect. Dem.	Cell metabolism: An overview	12

UNIT II ORGANISMS			Program Number
Week 4. Protozoa and coelenterates			
M Feb. 24	Lect. Dem.	Biology of the protozoa I	13
M Feb. 24	Lab. Dem.	Protozoa and coelenterates	15
Tu Feb. 25	Lab. Disc.	Experiments with paramecium and Hydra	
W Feb. 26	Lect. Dem.	Biology of the protozoa II	14
F Feb. 28	Lect. Dem.	Biology of the coelenterates	16
Week 5. Flatworms and arthropods			
M Mar. 2	Lect. Dem.	Biology of the flatworms I	17
M Mar. 2	Lab. Dem.	Biology of parasitism	19
Tu Mar. 3	Lab. Disc.	Flatworms	
W Mar. 4	Lect. Dem.	Biology of the flatworms II	18
F Mar. 6	Lect. Dem.	Biology of the arthropods I	20
UNIT III THE ORGANISM			
Week 6. Nervous system			
M Mar. 9	Lect. Dem.	Insect behavior	21
M Mar. 9	Lab. Dem.	Neurology laboratory work	24
Tu Mar. 10	Lab. Disc.	Nerves	
W Mar. 11	Lect. Dem.	The nervous system I	22
F Mar. 13	Lect. Dem.	The nervous system II	23
Week 7. Muscular system and circulation system			
M Mar. 16	Lect. Dem.	The nervous system III	25
M Mar. 16	Lab. Dem.	The circulatory system I	27
Tu Mar. 17	Lab. Disc.	Blood	
W Mar. 18	Lect. Dem.	The muscular system	26
F Mar. 20	Lect. Dem.	Circulatory system II	28

Program Number

Week 8. Reproductive system

M Mar. 23	Lect. Dem.	Circulatory system III	29
M Mar. 23	Lab. Dem.	Amphibian reproduction I	31
Tu Mar. 24	Lab. Disc.	Reproduction	
W Mar. 25	Lect. Dem.	The reproductive system I	30
W Mar. 25	Second Lect. Dem.	Reproductive System II	32

(This is a Fri. Lect. Dem. rescheduled because of vacation.)

Spring recess

UNIT IV MANUFACTURE OF AN ORGANISM (DEVELOPMENT)

Week 9. Hormones

M Apr. 6	Lect. Dem.	Endocrine system I	33
M Apr. 6	Lab. Dem.	Endocrinological research	35
Tu Apr. 7	Lab. Disc.	Itormones	
W Apr. 8	Lect. Dem.	Endocrine system II	34
F Apr. 10	Lect. Dem.	Human development	36

Week 10. Development

M Apr. 13	Lect. Dem.	Development of the sea urchin	37
M Apr. 13	Lab. Dem.	Embryology laboratory techniques	39
Tu Apr. 14	Lab. Disc.	Development	
W Apr. 15	Lect. Dem.	Development of the chick	38
F Apr. 17	Lect. Dem.	Problems of differentiation	40

Week 11. Differentiation

M Apr. 20	Lect. Dem.	Problems of differentiation II	41
M Apr. 20	Lab. Dem.	Tissue culture	43
Tu Apr. 21	Lab. Disc.	Experimental Embryology	
W Apr. 22	Lect. Dem.	Regeneration	42
F Apr. 24	Lect. Dem.	Mendel's Laws	44

UNIT V QUALITY CONTROL (GENETICS)			Program Number
Week 12. Inheritance			
M Apr. 27	Lect. Dem.	Chromosomes & genes; Sutton's breakthrough	45
M Apr. 27	Lab. Dem.	Genetics laboratory techniques	47
Tu Apr. 28	Lab. Disc.	Fruit fly experiments	
W Apr. 29	Lect. Dem.	Chemistry of heredity I	46
F May 1	Lect. Dem.	Chemistry of heredity II	48
Week 13. Genetics			
M May 4	Lect. Dem.	Chemistry of heredity III	49
M May 4	Lab. Dem.	Human genetics	51
Tu May 5	Lab. Disc.	More fruit fly experiments	
W May 6	Lect. Dem.	Darwinian evolution	50
UNIT VI INVENTION OF NEW ORGANISMS (EVOLUTION)			
F May 8	Lect. Dem.	The evidence for evolution	52
Week 14. Evolution			
M May 11	Lect. Dem.	The mechanisms of evolution	53
M May 11	Lab. Dem.	Human evolution	55
Tu May 12	Lab. Disc.	Even more fruit fly experiments	
W May 13	Lect. Dem.	Ecology; the anatomy & physiology of nature	54
UNIT VII POPULATIONS (ECOLOGY)			
F May 15	Lect. Dem.	Biomes I: Prairie & Deciduous Forest	56
Week 15. Ecological biomes and animal behavior			
M May 18	Lect. Dem.	Biomes II: Tundra & Rain Forest	57
M May 18	Lab. Dem.	Animal behavior I: communication	59
Tu May 19	Lab. Disc.	Ecology	
W May 20	Lect. Dem.	Animal behavior II: migration	58
F May 22	Lect. Dem.	Biomes III: The sea	60
Week 16. Ecology concluded			
M May 25	Lect. Dem.	Biomes IV. The Lake (Hasler)	61
W May 27	Lect. Dem.	Human Ecology	62

PROGRAM 5 - CELL DIVISION I: THE STRATEGY

Study of cell division will use research film as basis

Bajer (made film) worked with blood lily. In life mitosis (cell division) takes about 5 hours; time lapse photography reduces this to about 1 minute. Steps as follows (refer to fig. 5-1):

a) Interphase stage (erroneously called "resting stage" in film) - cell actually very active, doing everything except dividing. Chromosomes in threadlike form called chromatin.

b) Prophase - chromatin doubles in quantity and chromosomes thicken (condense out). Nuclear membrane disappears and spindle appears, with spindle fibers attaching to each chromosome at the centromere. Nucleoli disappear and double chromosomes untwist, but remain attached. c) Metaphase - double chromosomes line up on the equator (midline) of the cell, between the 2 poles. d) Anaphase - each centromere splits and the two halves of each chromosome move apart, apparently pulled by spindle fibers. These halves, now called daughter chromosomes, move to opposite poles.

e) Telophase - cell plate starts forming across equator; spindle disappears; chromosomes resume thread-like appearance; nuclear membrane and nucleoli reappear. Above stages arbitrary - actually mitosis continuous, as films clearly show.

In the animal cell, as seen in newt cells, mitosis is similar except that two centrioles are present in the cell and split in prophase

moving to the opposite poles of the spindles. Also animal cells separate by pulling apart, rather than forming a cell plate.

Cell division in the animal body is needed for repair or for replacement of cells, e.g., skin or blood cells. If cell replacement becomes uncontrolled, the result is cancer.

If cells are irradiated, chromosomes are broken and anomalies of division occur (more chromosomes to one daughter cell than another, unequal split of a given chromosome, etc.). This disorder in the genetic information transmitted usually results in cell death.

If cells are treated with colchicine (a drug), the chromosomes do not move apart at anaphase.

Normally, however, mitosis functions without interruption and genetic information is accurately parcelled out to each new cell.

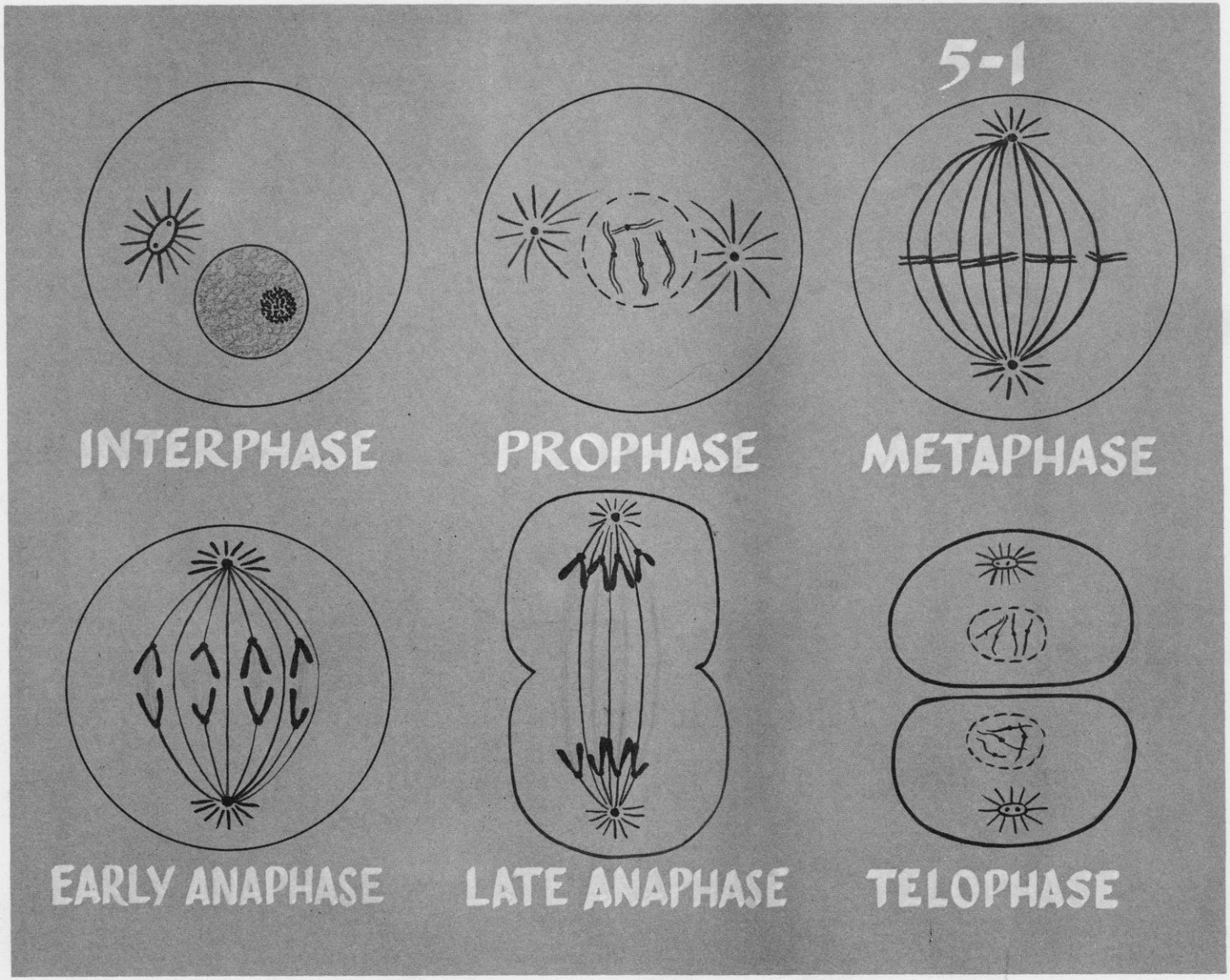
Two errors in film: 1. "Resting stage" now called interphase because former term misleading; 2. chromosome duplication takes place during interphase, not prophase.

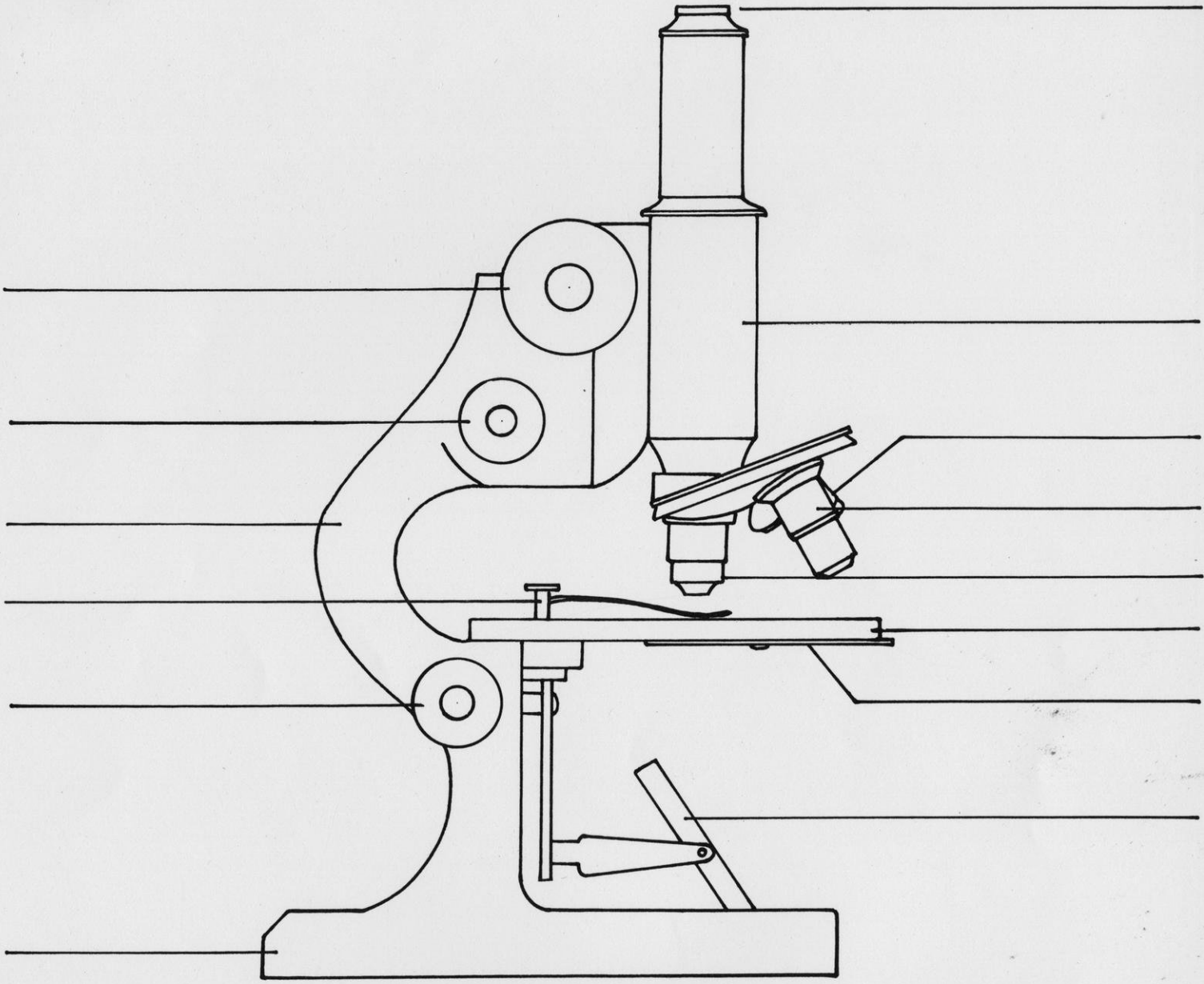
Study of cell reproduction began for all practical purposes in 1838. Schleiden and Schwann thought cytoplasm formed around naked nuclei (free cell formation). In 1855 Virchow stated his famous dictum "all cells from cells" and a search began for the actual method of cell division. Flemming worked out the process for the first time in 1882, using sliced sections (technique will be explained in program 7 - Microtechnique).

Anatomy of microscope described. Label your diagram while watching (fig. 5-2). In this laboratory, objective lenses are 4X, 10X and 43X. Ocular lenses usually need to be cleaned. Tilting the microscope unnecessary unless posing as scientist in advertising photo. The body tube holds the lenses, can be moved up and down to focus on a specimen. The stage holds the slide, and clips keep it in place. A hole in the stage permits light to pass through the specimen. To focus, start with 10X objective and run body tube down with coarse adjustment, watching from side to avoid breaking slide. Then look in scope, check the light and adjust if necessary with the mirror. Focus first with the coarse adjustment and then with the fine adjustment.

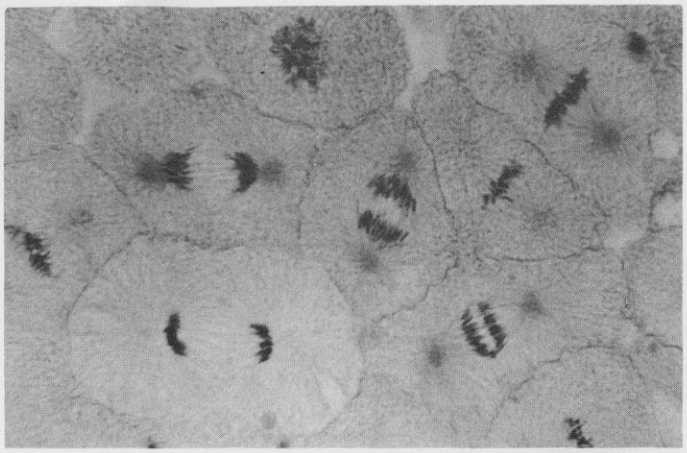
TV microscope used to show through a third ocular what the operator sees in his ocular lenses. Low and then high power shots of onion root tip and whitefish blastula mitosis shown, including "face-on" view of metaphase plate (see figs. 5-3 to 5-11. You may wish to make notes on them while watching.)

Flemming had similar type of material to work with, and made excellent slides and figures of cell division. Original Flemming book (1882) shown.


5-1
INTERPHASE
PROPHASE
METAPHASE
EARLY ANAPHASE
LATE ANAPHASE
TELOPHASE



COMPOUND MICROSCOPE



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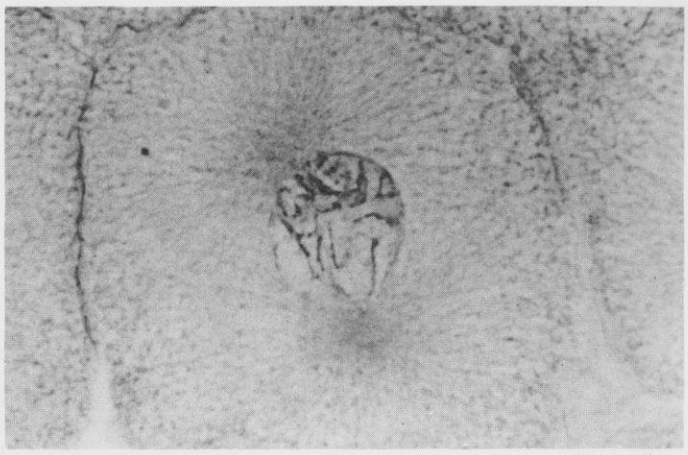

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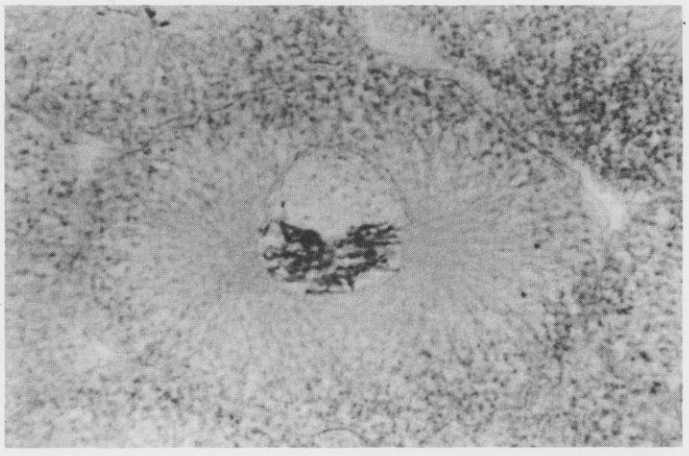

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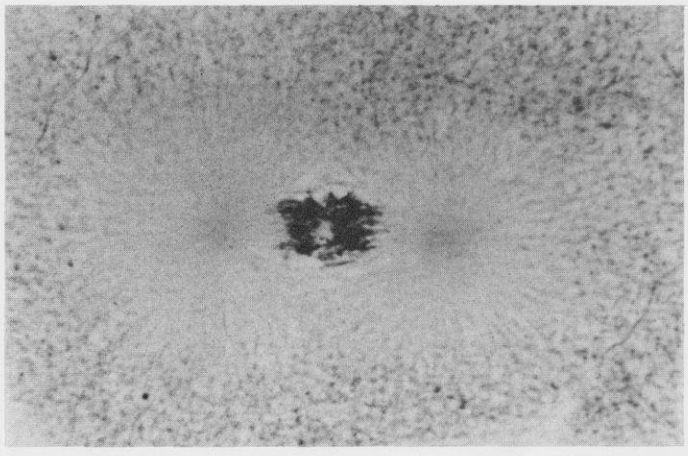

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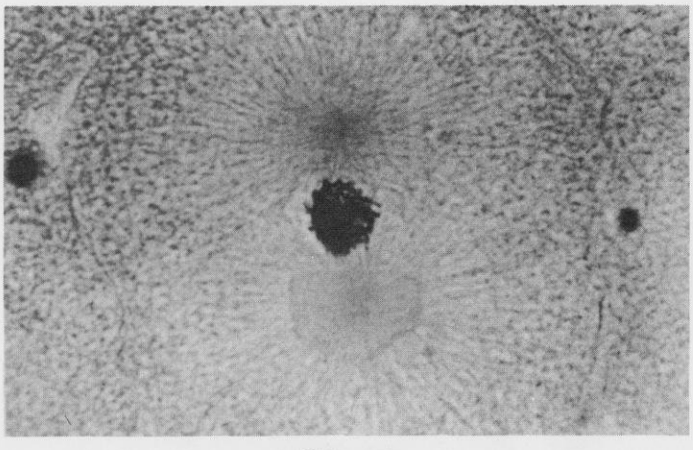

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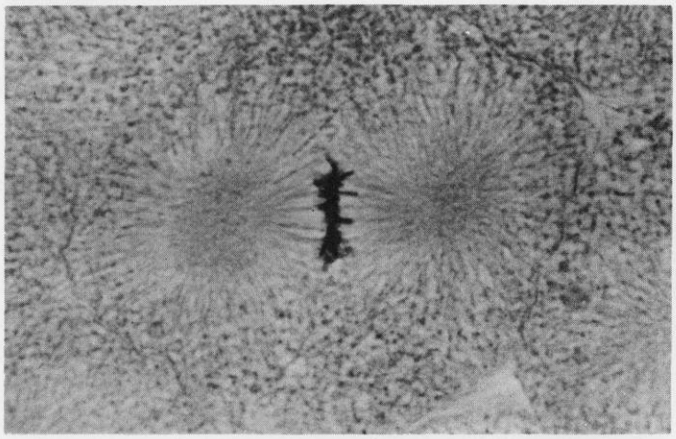

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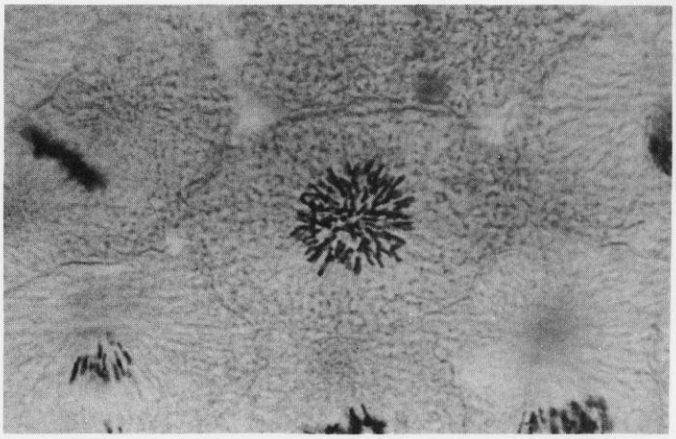

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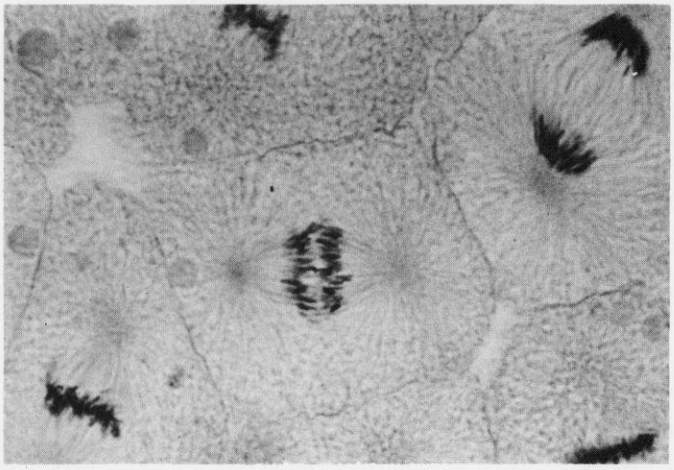

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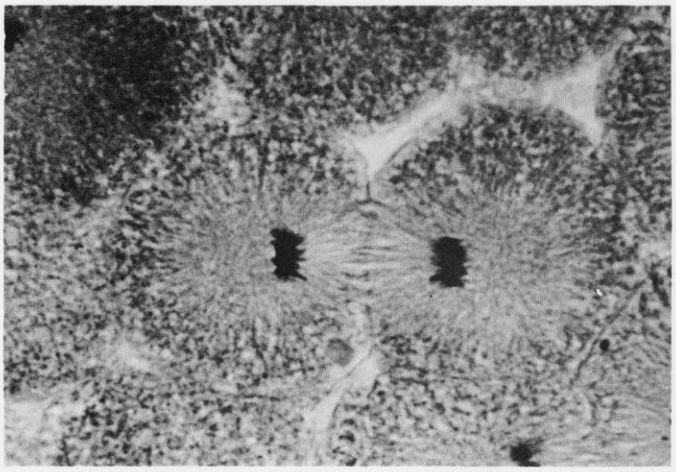

5-11

Zoology Dept.

U.W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

3/2/64 jb

RELEASE: Immediately

MADISON, Wis.--The University of Wisconsin faculty was urged by its radio-television committee Monday "to explore the distinctive opportunities for research, improved teaching, educational extension, and public service available through radio and television."

The committee stated:

"Burgeoning enrollments, crowded classrooms, and the wide gap between the discovery and application of new information make it necessary for modern education to employ the most modern and efficient tools of communication.

"All departments (of the University) are urged to seek and allocate the necessary funds and personnel to deal with the unanswered questions in radio and TV education, and in their own areas where these instruments have special usefulness."

The committee noted in its annual report that the journalism, education, psychology, and speech departments were utilizing TV in their research efforts, "but accomplishments to date should be regarded as but a beginning...Limitless areas and avenues of exploration lie ahead, challenging virtually every instructional department to search and inquire."

Zoology Prof. Donald H. Bucklin and Lee S. Dreyfus, professor of radio, TV, and speech, staged a demonstration at the faculty meeting of an introductory zoology course being telecast to one section of students on the Madison campus this semester, produced with the aid of a Kemper Knapp grant. Segments of material presented to the students this past month were shown with Prof. Dreyfus explaining advantages of this means of instruction. It was announced that Prof. Bucklin is preparing a text manual to accompany the course.

-more-

Add one--radio-TV committee

Progress in radio and TV utilization was made at the UW in 1963, the committee reported, particularly via:

Advancing closed-circuit teaching through production of regular credit course instruction in zoology and nurses' training, with the Medical School also using this media for instruction in surgery; increasing the service area of WHA-TV, the UW station, through erection of a 12 kw. transmitter and higher gain antenna, extending coverage radius from 14 to 42 miles;

Increasing TV programs for classroom use in schools to an average of 18 hours per week, with special programs also provided for teachers, these giving guidance on utilization of TV; increasing use of the Wisconsin School of the Air series; and participation of 80 of Wisconsin's 133 state legislators in WHA broadcasts of the Legislative Forum.

The faculty also was invited to consider the potential of a plan advanced by the U.S. Office of Education to establish an Educational Communications System. This would provide electronic interconnection between major universities and educational radio stations in the East and Midwest, and eventually throughout the country.

Prof. Henry L. Ahlgren, associate director of Cooperative Extension, is chairman of the radio-TV committee. Other members: Profs. S. Watson Dunn, journalism; Harald S. Naess, Scandinavian Studies; Ordean G. Ness, speech; Robert C. Pooley, English; Robert Taylor, assistant to the UW president; and L. Clinton West, education; and Robert N. Dick, director of Extension field services.

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Zoology Dept

MADISON NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE:

2/13/64 jb

Immediately

MADISON--Prof. Arthur D. Hasler, director of the University of Wisconsin's Laboratory of Limnology, will speak on "Baltic Biology" at a zoology colloquium in Room B302 Birge Hall Friday (Feb. 14), starting at 3:40 p.m.

He recently returned to Madison after doing research and presenting a series of lectures at the University of Helsinki, Finland, last semester.

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WIRE NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

2/23/62 gr-jb

RELEASE: Immediately

MADISON, Wis.--Undergraduate students majoring in biology at the University of Wisconsin and neighboring colleges attended an open house showing UW research Friday afternoon.

The guests, who came from other schools in Wisconsin, Illinois, Iowa and Minnesota, viewed studies being conducted in such disciplines as ecology and human behavior, hydrobiology, embryology, invertebratebiology, serology, physiology, cytology and endrocrinology.

Held at Birge Hall and the UW Hydrobiology Laboratory on the shore of Lake Mendota, the demonstrations showed the wide scope of research in this field.

The UW junior and senior staff of graduate students in biology handled arrangements for the open house.

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A STATEMENT OF BIOLOGY NEEDS AT THE UNIVERSITY OF WISCONSIN

(Prepared by the Executive Committee of the Faculty Biological Division)

The past few decades have brought revolution to all areas of science. These have been the golden years of the physical sciences and, because of the immediate relationship of their research to our military programs and to the tremendous technological push of the postwar years, they have had first call on our manpower and biology has had to accept less than its rightful share. This is reflected not only in terms of competition for available manpower and in research support, but even in the salary structures of the United States Civil Service Commission for scientists employed by the Federal government. This is also illustrated by the fact that in the period 1936-1945 nearly 19 per cent of all Ph.D's granted in this country were in the field of biology, but in the period 1946-1953 only 11.7 per cent were in biology. But the coming years should belong to biology. There is an increasing appreciation that man is, in fact, a biological organism and that biological phenomena and biological principles underlie all human problems, whether they be food production, resource management, psychological and social adjustments, or health. It is not chance that an increasing number of physical scientists are today joining the biologists in their quest to discover the underlying basis of life itself. However, the number of biologists being trained is not adequate to meet the educational needs immediately before us, and the research momentum of the last three decades is in jeopardy.

The University of Wisconsin has occupied a position of high prominence in research and teaching in the broad field of biology. In several biological areas it still has the highest prestige. An illustration of its position among universities is the fact that the ninth (1955) edition of American Men of Science lists some 2700 botanists, approximately 10 per cent of whom (almost as many as Minnesota and Harvard combined) received their Ph.D. degree at the University of Wisconsin. Many factors have contributed to the achievement of this pre-eminent position, but four have been particularly significant: (1) since its formative years the University has placed first emphasis on the quality of the individual staff member; (2) the University administration has consistently encouraged and supported basic research and has granted to its individual staff members a freedom of action that has resulted in a true research atmosphere; (3) the faculty has engendered a spirit of interdepartmental cooperation which is very conducive to joint programs of teaching and research and which is recognized as being unique among institutions of this sort; (4) fluid research funds made available by the Research Committee of the University have permitted its staff to undertake pioneering researches that have paid rich dividends to the state and nation.

In the light of our heritage and cognizant of the responsibilities and opportunities before us, we make the following appraisal of the needs of biology at the University of Wisconsin on both Madison and Milwaukee Campuses.

I. Quality of the Faculty.

We would place the procurement and support of staff members of the highest quality as the first consideration in maintaining and extending strength in biology at the University of Wisconsin. We must add to our staff men who have the most fertile and imaginative minds; research scholars with the highest motivation; and teachers who can impart knowledge, inspire effort, and stimulate their

students to discover their own potentiality. We cannot afford to settle for average or unusual individuals; we must have outstanding ones. Outstanding graduate students are not attracted by mediocre professors; outstanding research and teaching are rarely done by other than men with outstanding research and teaching ability.

A. Salaries are becoming increasingly important in staff building. Salaries prevailing at the University of Wisconsin place it in a poor competitive position. Our average salaries are below the average of the Big Ten schools and even further below those of the nation's other leading universities. Unless our relative position is improved we cannot avoid losing ground. And this improvement should not be dependent upon research funds that a staff member may attract to the University as an individual investigator of recognized merit and stature.

B. Fringe benefits available to our staff members also place us in a poor competitive position in attracting outstanding scientists to our staff. Two items merit special emphasis.

1. It would be particularly helpful for the University to provide travel funds for its scientists to attend professional meetings. Attendance at such meetings is an investment in resources and is an absolute necessity if one is to keep abreast of developments in his field.

2. Opportunity for periodic leave with pay, such as that now available through Research Committee funds, for travel, study or research at another institution should be extended to a point that would permit more ease of schedule and program planning. Coupled with leave for our own staff should be more money to sponsor exchange programs with scientists of other institutions.

II. Physical Facilities.

Physical facilities for research and teaching in biology also greatly affect our ability to attract outstanding scientists to our staff. Our facilities are excellent in some areas and very outmoded and overcrowded in others. Even some our our newest buildings are now overcrowded and inadequate because of cutbacks in building necessitated by insufficient funds. New and modern facilities for certain plant science and animal science departments in the College of Agriculture are badly needed. Needs are also great for the two basic subject matter departments (botany and zoology) in the College of Letters and Sciences and also for certain departments of the Medical School. Research facilities on the Milwaukee Campus, even with the completion of the new Science Building, will be very limited. Several of the Big Ten schools have moved far ahead of us in physical plant development, and in terms of physical facilities in several subject matter departments, the University of Wisconsin does not rank as a first-rate institution.

The lack of adequate space greatly limits the output of many of our staff members and often handicaps us in the recruitment of the best qualified personnel. Significant increases in Foundation grants in support of research could be had if more adequate physical facilities were available. Biological science is receiving substantial recognition at the national level in terms of funds for research and teaching. Only those institutions that are prepared to provide housing and facilities to absorb and utilize these funds can take full advantage or the great opportunities offered.

The study of plants and animals in their natural habitats is an essential phase of biological teaching and research. To facilitate this work suitable areas should be acquired and existing ones expanded to insure adequate opportunities for such work on both the Madison and Milwaukee Campuses.

Library facilities in biology are grossly inadequate. We need more reading space, more fast return facilities, and better organization of biological library materials.

III. Research Support.

Biological research is costly and it will become more so, as it is becoming increasingly complex.

A. The Wisconsin Alumni Research Foundation has been a most significant factor in developing and maintaining research prestige in the natural sciences at the University of Wisconsin. In another sense it has perhaps been a retarding factor in that the state has come to depend upon it to an extent that its own appropriations are inadequate. W.A.R.F. money is more generally allocated for fellowships, assistantships, and capital purchases. This creates a critical need for increasing amounts of supplies and expense money, and we believe that additional supplies and expense money should be made available to most research projects, for the equipment upon which their success increasingly depends must often be maintained and repaired by foregoing other needs equally important.

B. The stipend of research assistantships should be markedly increased. Most of our research is done with the aid of graduate assistants, and one outstanding student is more productive than two or more average students. Our future will not be secure by our remaining in just a competitive position. We must be in a position to attract the very best brains, and our current experience indicates that we are repeatedly losing topflight students to other schools. The stipends of our research assistantships are at the moment considerably below those at many other universities, and the general matriculation fee we require is relatively high. In the current economic picture, prospective students place great emphasis on the level of the stipend.

C. We believe that more research technicians should be employed. Such persons, cooperating with both staff and graduate students, could greatly increase output and could provide continuity which would avoid periodic interruptions to research necessitated by graduate student turnover.

D. We believe that more interested and outstanding undergraduate students should be encouraged to participate in research programs as a means of guiding them into professional research in biology. Sources of funds for this type of educational training could perhaps be obtained on a University-wide basis from such agencies as the National Science Foundation.

E. Biological research cannot be effectively turned on and off on a given day, year, or decade. It requires continuity, and much time must be spent in planning and setting up individual experiments. The conditions of appointments of research personnel, therefore, should be such that ample time, unencumbered by schedules, in left for research. We recognize the need for teaching by our most competent researchers, especially at the graduate level, but when teaching becomes burdensome, productivity in research drops disproportionately.

1. Teaching responsibilities should be maintained at a level that would permit staff members interested in research to carry significant and continuous research programs.

2. All staff members actively engaged in research should be placed on 12-month appointments, unless their particular program needs would be best served by academic appointments.

IV. Research Programs.

Those who chart the program of the future must realize that biology has too long concerned itself with descriptive endeavors and must lead biology into more basic investigations of life and living things. Future programming must bring together the various groups of biology to effect more team approaches in research. Biology cannot achieve its full impact of influence in scientific developments in this country if its various subordinate branches remain as unattached and as unaware of each other as they have in the past. We must also join hands more and more with our colleagues in the physical sciences so that new techniques as they develop can be brought to bear on biology.

A. Both teaching and research should be strengthened at the Milwaukee Campus. This can only be accomplished by attracting a competent staff and providing opportunities and facilities comparable to other institutions. Research programs appropriate to the Milwaukee area, such as basic studies of Lake Michigan should be encouraged.

B. The University of Wisconsin should pioneer in new research areas and in new research organizational concepts.

1. The new Biotron is an excellent illustration in point. These facilities will permit probing in many new areas and will necessitate many changes in methodology and organizational concept.

2. There is great demand in the United States and other countries for an integrated research program in subcellular biology. For this field modern biologists are trained in the basic knowledge of physics, mathematics, and chemistry, as well as in modern biology. This training enables them to relate biological phenomena to the molecular changes of a cell which are responsible for them. Such an integrated approach has already provided many "breakthroughs" and an increasing amount of biological research will depend on it. The University of Wisconsin maintains a strong emphasis on the molecular aspects of biology. This program should be strengthened by additional appointments in this area. It should particularly include within its framework increased attention to virological (fundamental studies on viruses of both animals and plants) and to biophysical research.

3. To implement research along these lines, some consideration should be directed towards the development of engineering services for biological research. People interested in advanced instrumentation and physical theory applicable to biophysical research technology should be brought into this environment.

4. Biologists have almost exclusively concerned themselves with descriptive and experimental endeavor. We believe attention should be given now to theoretical considerations of biology. We need leadership that can rationalize and pull together the various phenomena of the submicroscopic organization of living things.

5. Space biology stands as a most exciting and challenging frontier.

C. Additional emphasis, in both teaching and research, should be placed on biometrical analysis to support biological work. In our Computer Laboratory we have excellent service in data processing, but we feel that there is inadequate exploration in computer techniques and applications to biological research. We need more interpretative services.

V. Curricula and Teaching.

A. Curricula should be constantly under study and revision so that they will at all times reflect the most modern developments and will employ the most advanced techniques. We believe that in the near future enrollment increases in Milwaukee will justify curricula in such areas as public health, sanitation engineering, bacteriology, nursing, and medical technology and that so-called enrichment courses should be developed in botany and zoology.

B. Biological curricula constitute a most important segment of cultural training. In the growing awareness of the tremendous, immediate impact which research in physical and biological sciences is exerting on our material progress, there is a corresponding danger of minimizing the fundamental importance of science instruction in the general cultural curriculum. In fact, there is some misguided enthusiasm for contrasting instruction in the sciences to that in the humanities with the implication that only the latter serves to impart cultural values.

It should be stressed rather that increased understanding of our physical environment and of ourselves as functional organisms within it has revolutionized our intellectual environment as well. Our mental and social orientations have been modified, our fears of the supernatural have been largely removed, and our confidence and aspirations increased through increased understanding of life.

It seems clear that every cultured individual must have an appreciation of some of the main concepts and current trends in the sciences, and it would seem urgent, therefore, that every college student attain some knowledge of both physical and biological principles, which will permit him to appreciate their operation and meaningfulness in his own daily life.

Konrad H. Akert (Anatomy)
Edwin C. Albright (Medicine)
John T. Emlen (Zoology)
John E. Mitchell (Plant Pathology)
Gerald C. Mueller (Oncology)
Robert P. Niedermeier (Dairy Husbandry)
Glenn S. Pound (Plant Pathology), Chairman
Kenneth B. Raper (Bacteriology)
Peter J. Salamun (Botany - Milwaukee)
J. F. Stauffer (Botany)
Eldon D. Warner (Zoology - Milwaukee)

February 10, 1961

Biology Dept

FEATURE STORY

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

12/22/60 pvn

RELEASE: Immediately

By PAUL VAN NEVEL

MADISON, Wis.--The instrument used by the Navy to detect submarines, an echo sounder, will help University of Wisconsin biologists study water life while Wisconsin lakes are frozen this winter.

About twice a week Roderick Stone, hydrobiology graduate student from Madison, will be seen on the ice of Madison's Lake Mendota with the sounder. He'll be continuing the University lake laboratory's long-term project of keeping track of the lake's yellow perch.

The echo sounder works this way: electronic beams are bounced off the lake bottom. Fish swimming between Stone and his sounder on the ice, and the lake floor, interfere with the beams and are recorded on Stone's instruments.

Although most other lake lab projects halt for the winter, Paul Sager, a graduate student from Kaukauna, will be busy, too. He will be studying the growth rate of yellow perch, and the number of these fish taken from Lake Mendota over the winter.

Dr. Arthur D. Hasler, professor of zoology in charge of hydrobiology, normally has several students working with him on studies of water life. Several of these are now getting their research findings ready for publication.

James Gammon, one of these students, found that Wisconsin lakes sometimes become overcrowded with perch. When this happens, food supplies thin out, stunting the growth of the perch.

Gammon studied the possibility of using predator fish to thin the perch population in overcrowded lakes.

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Another student, Donald McNaught of Detroit, found that the microscopic organisms, Daphnia, which make up the food supply of white bass, move up and down in the water.

The amount of light penetrating the lake in its daily cycle is associated with this movement, he said. McNaught studied the relation of this movement to the bass' feeding habits.

Dr. Hasler and his students will also continue to experiment with the way fish find their way around the lakes. The mechanism the fish use in orientation can also be analyzed in the laboratory.

Hasler has done work with salmon orientation. These fish return after years in the ocean to spawn in the same inland streams where they hatched.

On the basis of experiments, Hasler theorized that salmon orient themselves in two ways. A salmon may use the sun to find its home stream, and then its sense of smell to find its spawning spot, Hasler proposed.

During the winter, when experimentation is partly carried on in the lab, a uniquely constructed saucer-shaped tank is used to train fish to react to a simulated sun.

Some fish will also be taken below the equator to Brazil to study their reactions to different sun positions. In Wisconsin, the sun is to the south, moving east to west. In southern Brazil, the sun is always to the north, moving east to west.

Through these long and short-term experiments, and through the use of new devices, such as the echo sounder, Wisconsin hydrobiologists are learning how fish and other water life behave and function, even during the winter.

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Biology Dept.

FEATURE STORY

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

1/5/61 wb

RELEASE: Immediately

By WALTER BUNGE

MADISON, Wis.--Biology is more than the study of bugs and pickled frogs and can be a lot more fun than merely memorizing lists of plants or animals.

This is the belief of Eugene Gennaro of Wisconsin High School and of five other Madison high school biology teachers whose classrooms are serving as laboratories for an entirely new biology course.

The course was written last summer by 60 teachers from across the country who gathered in Boulder, Colo., under auspices of the Biological Sciences Curriculum Study (BSCS). Included were three Wisconsin teachers: Prof. Donald H. Bucklin, University of Wisconsin professor of zoology; John Gundlach, Neenah High School teacher; and Gennaro. A series of high school biology textbooks being used in 15 "centers" throughout the country resulted from the seven-week meeting.

"I believe it is the most drastic change ever made in a biology course," says Gennaro, leader of the Madison center.

He points to emphasis in the course on thinking over rote memorization, on student lab projects over lectures. "We have as many as four lab sessions weekly," he explains. In one of many experiments this semester, his students counted the number of heartbeats in a water flea after giving it stimulants and a tranquilizer. Next semester experimenters will cross fruit flies and watch the development of different strains.

"Biologists have been recommending curriculum changes for 100 years but for the first time the recommendation includes tools with which to make the change," says Dr. Bucklin. "The new BSCS texts and lab manuals are the tools with which biology teachers can work a long overdue revolution in the teaching of biology."

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When completed, the textbooks and manuals will be the first biology textbooks ever written by a "feedback" method on such an extensive scale.

Here's how "feedback" works in the Madison "center."

Each Thursday the six biology teachers from West High, Van Hise Junior High, Monona Grove High, Herbert Schenk Junior High, Cherokee Junior High and Wisconsin High meet to discuss the experimental text, the strong points and the weaknesses they found during the previous week's teaching.

Their conclusions are "fed back" to the Boulder headquarters of the BSCS, combined with conclusions from the other 100 participating teachers and will be used in the revision of the textbook next summer. Prof. Bucklin serves as consultant to the Madison center.

The major focus of the experimental course is the modernization of biology education. Three premises serve as the base for making the changes. First, biological education has an importance beyond that of a general cultural subject for the average 10th grader because for the rest of his life he will be called on to make public decisions based on biological information.

Second, the science student must be taught what is known today and be prepared to evaluate tomorrow's new information. Third, since 75 per cent of high school students take biology but a majority do not go to college, the biology course is the school's last opportunity to teach the student what science and scientific methods are.

The American Institute of Biological Sciences is supporting the study with funds from the National Science Foundation. The new course was prepared in three versions, each emphasizing a different thematic approach. Although the study is interested in improving teaching of biology at all levels, the first course was prepared for secondary schools.

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Biology Dept

WIRE NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

9/16/59 ml

RELEASE: 2 p.m. Friday, Sept. 18

LAFAYETTE, Ind.--(Advance for 2 p.m. Friday, Sept. 18)--The president of the University of Wisconsin Friday called for new recruits to join the battle against world hunger, which he believes is the root of most aggression.

Dr. Conrad A. Elvehjem, internationally-known biochemist whose major work has been in vitamin research and nutrition, spoke at dedication of Purdue University's Life Science Building.

"We have given considerable attention recently to attracting to mathematics physics, engineering and the foreign languages those young people who can strengthen our defenses against aggression," Pres. Elvehjem said.

"I suggest that we put equal stress on attracting to the life sciences the young people who can help cure the world's hunger, for that, I believe, is at the root of most aggression."

The Wisconsin president praised Purdue, a sister Land Grant institution, as a leader in the life sciences--the study of living things.

"The press and the public, in recent months," he said, "have been inclined to measure scientific achievement by the weight of satellites hurled into orbit or the range of missiles which carry them.

"These are important accomplishments, but to you and me, at this moment, they are not nearly so important as the lengthening of our life-span, the improvement of our nutrition."

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Dr. Elvehjem told his Purdue audience: "I have spent most of my lifetime working in the general fields this building houses." He recalled the childhood curiosity in the growth of a perfect ear of corn which led him through the study of animal metabolism to nutrition, the combination of plant and animal study.

He traced the history of nutrition--how until recently, scientists thought the difference between what went into an animal and what came out was the measure of the usefulness the animal got from its feed.

He went on to the discovery that this was not true--that the body is really a chemical factory, sometimes producing, sometimes destroying--and that researchers studying the body's factory had come up with vital information on the B vitamins, sulfa drugs, streptomycin and antibiotics.

The Wisconsin president pointed out that State Universities and Land-Grant Colleges like Purdue and Wisconsin produce 71 per cent of America's Ph.D.'s in the biological sciences and 100 per cent of the doctorate-holders in agriculture.

"From basic studies in the life sciences," he said, "will come more productive and profitable agriculture. New knowledge will help us produce plants more efficiently; better control the pests which prey upon them; help us combine plant materials, animal products and synthetic nutrients to produce more efficient rations; help us grow better foods for our tables; and ultimately, feed a hungry, growing world more effectively."

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U. W. NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

Biology Dept

RELEASE:

7/17/59 eda Immediately

By ED AEBISCHER

MADISON, Wis.--A high-ranking National Science Foundation official said here this week he is confident that the University of Wisconsin "will go forward in an aggressive way" with plans for a new $1.5 million research facility awarded to the University by the Foundation a week ago.

William Coleman, special assistant to the director of the NSF, said in an interview that the huge grant for constructing and equipping a laboratory which will simulate a wide range of climatic conditions is "a significant step forward in biological research."

The controlled-environment facility called a "biotron" will be used for basic studies on both plants and animals.

Coleman described the proposed biotron building as "unique." Earlier, NSF Director Allen T. Waterman said that to the best of his knowledge "the Wisconsin facility would be the only one of its kind in the world."

The biotron will vary individually temperature, humidity, wind, light, pressure, and composition of the atmosphere, making it possible to duplicate nearly every climatic condition for carefully controlled studies of plant and animal reactions to changes in environment.

"Painstaking care in investigating many sites" went into the decision to award funds for the biotron to the UW, according to Coleman.

Coleman was in Madison as a consultant to a University Law School seminar which is examining government contract and grant policies in relation to basic research.

He said other major projects in line for NSF support during the next year

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include studies on the dissemination of scientific information both to the public and among scientists, and a cooperative program for establishing research laboratories in colleges and universities for use by graduate students.

Under the latter program, the NSF would split the cost of constructing these new graduate research facilities with selected institutions.

Funds for atmospheric research projects will also bulk large among NSF grants during the next year, Coleman said.

During the last year, the Foundation, which was created by Congress as a public institution for the support of basic research, had a budget of $137 million, according to Coleman.

For the same period, the University's cash receipts in grants from the Foundation totaled nearly $2 million.

Coleman said that in setting up the NSF, Congress recognized that a federal source of support for research by qualified investigators without regard to its practical consequences was "indispensable to expansion of our technology and the general welfare."

He added that this approach was necessary because "basic research by its very nature is an exploration of the unknown and no one knows what it will produce."

Additionally he noted that "most practical scientific achievements come as a result of basic research."

NSF decisions on which proposed research projects are to receive support are made by specialized panels of "the best scientific talent available," Coleman said.

Membership on the panels is rotated continuously among personnel "drawn largely although not exclusively from colleges and universities," he said.

The Foundation will be 10 years old in May next year.

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Biology Dept

U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

7/11/59 eda

RELEASE: Sunday, July 12, 1959

MADISON, Wis.--(Advance for Sunday, July 12)--A $1.5 million grant to the University of Wisconsin for construction of a two-unit "biotron"--a facility for basic biological studies of plants and animals under controlled environmental conditions--has been approved by the National Science Foundation and accepted by University regents.

"The grant will provide for a biological research facility of capital dimensions, and is the largest yet made by the Foundation in this field," said Allen T. Waterman, NSF director, in an announcement Saturday.

"To be the best of our knowledge the Wisconsin facility will be the only one of its kind in the world. It will provide biologists with the nation's first controlled-environment laboratory for the study of animal development, and the nation's second such facility for studying plant growth," Waterman said.

The biotron will provide wide-range, individual control of such climatic factors as temperature, humidity, wind, and light for fundamental research which is likely to be useful in selection and development of domestic strains of plants and animals better suited to the environment of specific localities.

Experimentation with the biotron will also supply information on the ability of organisms to survive and operate under extreme conditions.

Wisconsin was selected to receive the grant after a nationwide survey of interest and screening of applications.

Tentative location of the biotron building is at the extreme western edge of the campus, on Linden Drive, between the greenhouses and the creek which flows into University Bay.

"The new laboratory will be available for use by all qualified

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investigators," Waterman said, "and living facilities will be made available by the University for those who come to use it for extended periods."

Prof. Folke Skoog, chairman of the UW faculty Biological Division's Biotron Committee which drew up the request to the NSF for funds, said, "Widespread and acute interest in such facilities is motivated, in part by the urgent need for basic information in relation to more practical developments in agriculture and atmospheric research."

Members of this committee are Profs. Skoog, R. H. Burris, R. A. McCabe, G. C. Gerloff, R. K. Meyer, P. R. Morrison, and A. J. Riker.

In its proposal, the committee said that facilities needed for plant and for animal work are so different that both a phytotron for study of plant growth and a zootron for study of animal growth would be included as separate but coordinated units in the new structure.

Planned facilities for the phytotron include artifically lighted growth rooms, temperature controlled greenhouses, low temperature facilities ranging to 30 degrees below zero, dew and rain rooms, potting and storage areas, and facilities for harvesting and chemical analysis.

In the zootron there will be controlled environment rooms, working space in which to maintain animals, feeding rooms, and rooms for analysis of experimental material, including electronic recording equipment.

In addition to regulation of temperature and humidity, control of wind, noise, and light conditions is planned for some rooms of the zootron. In other rooms it is hoped that the composition and pressure of the atmosphere can be regulated.

The Wisconsin biotron is intended to serve not only the Biological Division's 17 departments but also to provide facilities for scientists from other institutions, especially the Middle West.

Many University scientists are currently studying the effect of environment on plant and animal functions, both in the field and under controlled experimental conditions to the extent that limited existing facilities permit.

Outlining the University's need for a biotron, the committee said:

"Biological research long ago reached the stage of development where the solution to many basic and acute problems would require technical means for creating and regulating environmental conditions in which all component variables, and each in relation to the others, may be varied over a wide range and in sequences simulating normal cycles and/or extreme conditions in nature."

The total annual cost of operating and maintaining the biotron is expected to be about 10 per cent of construction costs. Much of this expense will be covered by NSF grants during the early years of operation.

A Graduate School committee will be responsible for the biotron, and there will be a director and assistant director to act as executives in charge of operations and physical facilities in the two units.

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MADISON NEWS

[Biology. Dept of]

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE:

4/22/58 cfg

Immediately

MADISON--"Cold Acclimation in Animals and Human Races" will be the topic of an evening presentation in the University of Wisconsin All-University Lecture series May 1.

Speaker will be Dr. Per F. Scholander of the Scripps Oceanography Institution at LaJolla, Calif.

The program, which is open to the public, will begin at 8 p.m. in Room 1150 of Birge Hall.

The lecture is being presented under auspices of the UW graduate biological division.

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U. W. NEWS

Biology Dept of

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE: Immediately

11/19/57 mcg

MADISON, Wis.--An anthropologist from Oregon has settled down in a University of Wisconsin laboratory full of old bones and drops of new blood to carry on some of the most specialized research being done in the United States today.

She is Dr. Margery Gray, Fellow of the National Science Foundation from 1952 to 1955, holder of the Sigma Xi award for 1955, and for the past two years an identification specialist with the U.S. Air Force.

Dr. Gray and her Wisconsin colleague, Prof. William Laughlin, are the only anthropologists in the country identifying blood types from bones. They started this research at the University of Oregon when Miss Gray was a doctoral candidate and Laughlin was her major professor.

Miss Gray is engaged in a variety of research projects which may make tomorrow better than today, and will throw light on yesterday. Her materials are blood samples taken from victims of spherocytosis (hereditary anemia) in University Hospitals, bones buried thousands of years ago in Oklahoma, and blood-types of students enrolled in the University.

"I'm doing the blood-typing for research in the Hospitals, directed by Dr. Robert F. Schilling, which is seeking the relation between blood type and inheritance of spherocytosis," she explains.

"I'm also blood-typing the Indian bones from Oklahoma for the University study, supported by the National Science Foundation and directed by our department chairman, David Baerreis. This study is looking for the relations between biological

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and cultural change. The blood group substances in the bone marrow remain stable for thousands of years, so the age of these bones does not affect the accuracy of our testing procedures.

"In addition, I'm planning a population study of blood groups in Wisconsin which will start with the students and branch out to their families throughout the state," she continues. "We hope to prove, what we now suspect, that different regions have different frequencies of blood type, and we want to find the differences between ethnic and racial groups."

Miss Gray has set up a "bone library"--probably the first of its kind anywhere--in which she keeps available for future study generous samples of all bones already tested. Her laboratory equipment includes a centrifuge to spin out the red blood cells, a body temperature incubator, a refrigerator for the typing serum, an electric drill for extracting the marrow from the bones, and the usual test tubes and retorts.

Before she came to Wisconsin, Dr. Gray was stationed at Wright Patterson Field in Ohio as an identification specialist.

Dr. Gray was born in 1920 at Portland, Oregon, and educated at the University of Oregon, where she earned her B.S. degree in 1950, her M.S. in 1952, and her Ph.D. in 1955. She took further work at the Boston University School of Medicine and the University of Michigan in her special fields of interest, human and population genetics. Her doctoral thesis, written under Prof. Laughlin's supervision, is titled "Blood Group Genetics of the Basques of Idaho," and was published in the proceedings of the First International Congress of Human Genetics.

Next semester she will teach a course in blood group techniques for anthropologists and another in the use of blood group information by physical anthropologists.

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U. W. NEWS

Biology Dept 9

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

9/9/57 jl

RELEASE: Immediately

MADISON, Wis.--Three great scientists--Virchow, Pasteur, and Darwin--laid the basis for the modern science of biology, J. Walter Wilson of Brown University said today at the Institute for the History of Science being held at the University of Wisconsin.

The Institute has drawn outstanding historians of science from this country and England for formal addresses and informal discusssions of current problems in the field.

Wilson continued that Virchow was first to state the biological axiom that all cells come from preceding cells; Pasteur proved that spontaneous generation does not exist; and Darwin proved that all species are derived from pre-esixting species.

"These theree investigators were, in fact, saying virtually the same thing in different language," Wilson added. "Working in entirely different fields and from entirely different points of view, they were, in effect, saying that living substance arises only from living substance."

The great Jacques Loeb, however, carried the obvious argument one step further, Wilson pointed out. "Loeb used to contend that the biologist who teaches that life can only come from preceding life is really leading his students astray. He should, rather, teach them that the primary job of the biologist is to find out how life arose from the non-living and proceed himself to create it," Wilson said.

The old controversy of spontaneous generation actually had nothing do do with the modern "quite sophisticated question of the ultimate origin of life," Wilson said, "but rather with the production of known specific forms of organisms."

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The fact of the continuity of life has a meaning that most individuals can hardly grasp, Wilson continued.

Washing the hands, he said, removes a few dead skin cells. He commented, "The death of each of those cells is the first death that has occurred in a continous line of living protoplasm extending back through our whole lives to the fertilized egg, through this to our parents, grandparents and distant ancestors--to primitive man and his prehuman ancestors--to the primitive mammal and thus to the lower vertebrates--to the ancestors of these vertebrates and finally to the lowest forms of life, the original life that appeared on earth."

Wilson added that "this represents an extent to time and of experience that is almost beyond comprehension."

During this time, he said, life has been transmitted from cell to cell and individual to individual, it has endured through untold hazards, and it has carried on the "majestic process of evolution."

"This is the unifying idea," Wilson concluded, "that led to the maturation of biology as a science."

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U. W. NEWS

Biology, Dept of

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

8/29/57 rc

RELEASE: Aug. 29, 1957

PALO ALTO, Calif. (Advance for Aug. 29)--Two University of Wisconsin zoologists, experimenting with the curious fish called "headstanders" -- fish that swim 50 degrees off the horizontal plane in nearly a straight up and down position -- have hinted that the minute gravitational sense organs, located in the ear, are connected with the central nervous system.

The husband and wife team, Wolfgang and Helga Braemer, reported on their experiments done in Germany to fellow scientists at the American Institute of Biological Sciences meeting at Stanford University. Their work was done with three species of the salmon family, all of which demonstrate an almost vertical position in normal posture.

The scientists found that when a centrifuge was used to increase the gravitational force on a species named Thayeria obliqua, the normal 25 degree angle at which the fish swim was not affected.

"This means," the Braemers pointed out, "that the weight of the tiny stones called utricle statoliths, located in the semi-circular canal, which are needed for proper balance, cannot be increased by centrifuging.

"This, in turn, is only possible if the statoliths lie horizontally on the sensory membrane tissue while the fish is in its normal posture."

When the fish from the salmon species Poecilobrycon eques were centrifuged, the angle the fish take to the horizontal was reduced.

"This indicates that the stones lie at a definite angle to the horizontal. This angle decreases as the fish become older," the scientists explained.

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Ad one--AIBS-Braemer research on fish.

When the statoliths of one utriculus are removed, the equilibrium response is not reduced by exactly one-half as was expected. When both statoliths are removed, the fish lack precise orientation to gravity and swim with their heads directed upward -- 90 degrees from the horizontal.

The sharp angle -- 50 degrees off the horizontal -- of the species Chilodus punctatus is reduced when the fish are placed in a centrifuge.

"Removing the statolith of the utriculus on one side resulted in the fish swimming at a greater angle to the horizontal, as expected. But again, in this fish, the equilibrium response was not reduced by exactly one-half," the Braemers pointed out.

This suggests that other statoliths are involved in equilibrium, as does the fact that two species -- Poecilobrycon and Chilodus -- do not lie horizontally in the normal position, they added.

The Braemers' research -- important because fish sense organs are very similiar to man's sense organs and thus can be easily compared -- is a continuation of the work done by Prof. E. von Holst, director of the Maxplanck Institute for Behavior, Wilhelmshaven, Germany.

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WIRE NEWS Biology, Dept. of

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

8/12/57 rc RELEASE: Immediately

MADISON--More than 30 University of Wisconsin scientists will participate in the annual meeting of the American Institute of Biological Sciences to be held at Stanford University, Palo Alto, Calif., August 25-29.

The world's outstanding biologists from North, Central and South America and parts of Europe will attend the AIBS meeting--the major biological event of the year--to report on the result of their research to fellow biologists.

UW scientists participating either by attending the meetings or as authors of papers to be presented at the general sessions and their member societies include Profs. John W. Thomson, American Bryological Society; Robert W. Fulton, George W. Welkie, Glenn S. Pound, Francis Pelet, Albert C. Hildebrant, D. J. Hagedorn, E. W. Hanson, E. P. Van Arsdel, J. R. Parmeter, Jr., A. J. Riker, A. L. Flangas, J. G. Dickson, Ralph H. Kurtzman, Jr., and Robert H. Burris, American Phytopathological Society.

Gerald Thorne and Gail E. Beck, American Society for Horticultural Science; Warren J. Wisby, American Society of Limnology and Oceanography; R. H. Roberts, Louise Wipf, B. Esther Struckmeyer, G. W. Keitt, Jr., Folke Skoog, and E. H. Newcomb, American Society of Plant Physiologists.

Arthur D. Hasler, H. R. Wolfe and Samuel F. Reibel, American Society of Zoologists; Grant Cottam, Ecological Society of America; Alan Richter and R. Alexander Brink, Genetics Society of America and John W. Baxter, Mycological Society of America.

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Prof. Pound is vice-president of the American Phytopathological Society and Prof. Dickson is the Society's representative on the AIBS Governing Board.

Prof. Skoog is vice-president of the Society of General Physiologists.

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MADISON NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

5/8/57

RELEASE: Immediately

Prof. Samuel A. Talbot of the Johns Hopkins University School of Medicine will speak at the University of Wisconsin Friday (May 10) on "The Role of Biophysics," in 102 Birge at 8 p.m.

Talbot will also conduct a discussion period Saturday at 10 a.m. in the State Laboratory of Hygiene.

Talbot is known in the field of vision for his work on projection of the visual system upon the cerebral cortex, for the Marshall-Talbot theory of visual acuity, and for his studies on retinal mechanisms of color vision.

The lecture, sponsored by the biological division and the committee on biophysics of the Graduate School, is open to the public.

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Biology dept

U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

8/27/56 jl

RELEASE: Wednesday 11:45, August 29

STERRS, Conn.--New evidence has been added to old that black bass and many other fish species are homebodies.

Not only are individual fish to be found at the same spot year after year--they return home quickly and directly if captured and released at a distant spot.

University of Wisconsin scientists Arthur D. Hasler, Warren J. Wisby, and Robert A. Parker have found an apparent reason why bass and sunfish have this strong, inherent urge to stay home--particularly in the breeding season.

The Wisconsin scientists reported their findings today to other biologists attending the annual meeting of the American Institute of Biological Sciences.

Like many another animal, many fish species are territorial--that is, they pick a breeding site and defend it fiercely. And once they have picked a site, they evidently have an intense urge to return to it if they are caught and carried away.

Hasler found recently that fish can use an artificial sun and tiny landmarks in their environment to orient themselves in laboratory experiments. The sun may play a part in the homing of bass and sunfish in native environments, but it may not be the only guidepost. Perhaps fish also memorize shorelines and bottom contours and landmarks, the scientists speculated.

This is borne out by the fact that fish transplanted to a strange pond seem totally bewildered and do not swim to the same geographical corner as they would if displaced in their native pond.

Homing fish also returned quickly at night, but during the experiments shore marks were visible and a bright moon could also have served as a directional cue, the scientists reported.

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Most of the experiments were conducted by netting the bass and sunfish, tagging and releasing them, then re-netting them when they returned home. In order to determine the speed of return to home territory, this method was augmented by an interesting wait-and-watch procedure in which a small fishing bobber was attached to the fish by a nylon thread hooked to the dorsal fin.

Sunfish in ponds 75 by 260 feet scooted home in three to five minutes from any part of the pond, dragging their bobbers behind them.

Other lakes in which this method was attempted with black bass, bluegills, pumpkinseeds, and other species ranged from 24 to 102 acres in size.

Not all fish returned home, but more than a third always did. In a small, eight-acre lake, two-thirds were consistent homers.

Those that didn't return home, the scientists said, must have been bachelors or "dawdlers" in whom springtime hadn't aroused the proper urges. Or they may have been losers in a battle for a territory.

The scientists also tried homing experiments with white bass in Lake Mendota, a large lake bordering the University of Wisconsin campus. White bass are an open-water species that swim to a shoreline to spawn in spring. These white bass returned quickly to spawning grounds when released in the center of Lake Mendota--two miles from their spawning ground.

Hasler, Wisby, and Parker explained to fellow scientists that so far the work has posed more questions than it has answered.

"How," they asked, "do fishes displaced in large lakes find their way home when the bottom cannot be seen and shore marks are invisible? What happens to the fish that fail to make it home?"

These questions, they added, may be answered by experiments now planned or under way.

The work adds evidence to the belief that lake fishes do not move about in random fashion.

ad two--Hasler, Wisby, and Parker

"Therefore, statistical estimates of fish populations based on the assumption that fish are randomly dispersed must necessarily be modified," they said, "to correct the formulas and design techniques to give true estimates."

The research is sponsored in part by the U.S. Office of Naval Research and Dingell-Johnson funds.

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[Biology]

The Need for Addition to Birge Hall

(July 22, 1955)

I. Intrcductory

Birge Hall, formerly the Biology Building, is used by two large departments each composed of several divisions. The Botany Department is housed in the west end and the Zoology Department in the east end. Certain lecture rooms and classrooms, the Biology Library, and a lobby-museum are used in common.

Birge Hall was erected in 1912. Since it was then clear that more space would soon be necessary, the west wall was constructed of brick without windows to facilitate adding to the building. In spite of increasing needs in the past 43 years, no such addition has been made.

II. Unique Needs

Functionally the building is used for teaching of both undergraduate and graduate students in the fundamental aspects of botany and zoology, training of graduate students in research techniques, and research by students and staff. These functions require laboratories and special equipment. In addition, both departments deal constantly with living organisms which must be maintained in animal houses or greenhouses.

A. Laboratories and Classrooms. The staffs of both departments are actively engaged in fundamental and applied research. However, it is to be emphasized that the faculty is devoting most of its time to teaching undergraduates and training future investigators. Zoology and botany are basic sciences underlying medicine and agriculture. Progress in the applied fields depends on progress in the basic. "A stream does not rise above its source." Certain courses in zoology are required for medicine. Both zoology and botany are required for pharmacy. The work in zoology and botany is vital to the training in such agricultural departments as agronomy, plant pathology, forestry, horticulture, soils, animal husbandry, genetics, wildlife management.

Student enrollment in botany and zoology courses is between 3 and 4 times what is was in 1920-21--an increase of approximately 200 per cent in undergraduate enrollment and of about 550 per cent in graduate enrollment. The total number of students enrolled in courses in botany and zoology for the year 1954-55 was 4,348. A total of 384 students (214 undergraduate, 170 graduate) majored in the two departments in 1954-55. Every effort has been made to utilize the space in Birge Hall to the maximum.

a. In peak years elementary laboratory sections have been conducted in advanced course laboratories, to the detriment of both elementary and advanced training of students.

b. Crowded conditions in student laboratories have made it necessary to use the hallways for student lockers, equipment, books, refrigerators, etc. At the present time almost every hallway is used in this way.

c. The hallway connecting the greenhouses with the main building is used for four plant physiology courses.

d. At the present time the Department of Zoology must conduct two of its large laboratory courses in a temporary building opposite the Stock Pavilion, about one-half mile from Birge Hall.

e. A large number of recitation meetings are held in temporary and other University buildings as far as four blocks from Birge Hall. Many of the classes require teaching aids such as demonstrations of plants and animals, charts, etc. The transportation of these back and forth, in the winter especially, is troublesome and time-consuming and adds to the cost of teaching and the campus parking problem.

The elementary laboratories available in Birge Hall do not have sufficient storage and preparation rooms because small rooms adjacent to the

laboratories have had to be used to provide facilities for advanced and graduate students.

The laboratories are so crowded that many students cannot see the instructor or blackboard because of supporting pillars.

B. Graduate Instruction and Research. The staffs of two departments are nationally and internationally recognized for their research contributions in numerous basic and applied fields, and for the research training they provide. As a measure of this recognition, funds totalling $300,000 were made available from other than state appropriations to the University of Wisconsin for research in the Departments of Botany and Zoology during 1954-1955. The availability of this research support has enabled the departments to train graduate students in a number that would be impossible without such support.

The research programs of the two departments are broad and are making basic as well as applied contributions to the fields of medicine and agriculture. Some specific examples of the type of investigations being done are listed in Exhibit A, attached. It is to be emphasized that many important results obtained from these researches are basic for the applications which will be made subsequently. (All too often the vital nature of the basic contribution is lost sight of when the obvious application is publicized.)

The space available in Birge Hall for the training of graduate students and for staff research is inadequate and compares unfavorably with that of other institutions similar to the University of Wisconsin.

When the building was built in 1912, research in biology was largely descriptive and non-experimental, requiring relatively little space compared with that necessary for modern investigation.

Most of the current research in botany and zoology is experimental in nature and requires space in amounts which could not be foreseen 43 years ago.

The emphasis on scientific training is reflected in the great increase in graduate students enrolled in botany and zoology. As stated above, in the last three decades the increase in graduate student credits is more than 550 per cent. The total number of graduate students in the two departments for the year 1954-1955 was 170. This increase has put a very large burden on the limited space available in Birge Hall. Every attempt has been made to meet the need, but it must be emphasized that graduate student training on a per student basis is more costly in terms of space, equipment and staff time than is undergraduate training.

At the present, research is being carried on in makeshift quarters such as poorly ventilated and lighted basement storerooms, behind elevator shafts, in small rooms built under stairs, and in corners of teaching laboratories.

As many as seventeen staff or research students must work in research laboratories which are adequate only for five or less.

Most experimental work in the biological fields requires rooms in which animals and plants can be kept under conditions of controlled temperature, humidity and light. In addition to these rooms, space is needed for special procedures such as sterilization, culture work, chemical analyses, photography, and radiation. There is no space available in Birge Hall at the present time for expanding these limited, but very essential facilities. These facilities are needed for the instruction of undergraduate students in modern biology as well as for training graduate students, and for the prosecution of research.

III. Greenhouses

Living plants, many of which are grown in the greenhouses attached to Birge Hall, are used in teaching and for research purposes. The space in the greenhouses has been inadequate for several years, and as a result instruction in elementary and advanced courses in botany has been handicapped and research projects, a number with immediate practical value have had to be curtailed.

The new greenhouses included with the addition to Birge Hall will not in themselves provide enough space and the old greenhouses must be retained.

IV. Animal Quarters

The present animal quarters are inadequate in terms of amount and kind of space. The structure housing the animals has been added to at three different times in the last three decades. The additions have been restricted because the land available is limited in amount.

The resulting building is a hodge-podge of space which cannot be used efficiently, is difficult to keep clean. The ventilating system and temperature control cannot function properly because of the space arrangement. The quarters are so limited that at the present time it is only partially adequate for the research of two divisions of the Zoology Department.

Recently an old underground root cellar at the rear of Birge Hall has been used to house animals for a research project supported by funds by the Office of Naval Research.

Limited space for animals has been acquired in the old WARF laboratory north of the new engineering building. This is four blocks from Birge Hall and can be used only temporarily. Another small amount of space has been made available for graduate student research in the old Serum Plant on the College of Agriculture campus, about a mile from Birge Hall.

There is only limited space available for housing animals for teaching and research in the fields of parasitology, ornithology, vertebrate physiology, entomology, invertebrate physiology, genetics, and serology. Research and teaching in most of these fields has been limited in amount and kind because of the lack of space for living animals.

Needs of the Department of Zoology for animal quarters can only be met by retaining the old animal house to supplement the space devoted to this purpose in the addition to Birge Hall.

Exhibit A

Examples of Research Projects in the

Departments of Botany and Zoology

a. Aviation medicine. Studies of how arctic animals regulate their temperature, and the role of adrenal and other hormones in protecting animals against the effect of high altitudes. Information obtained from these studies are of importance to the army and navy who face the problem of maintaining personnel in the arctic or at high altitudes.

b. Fishery biology. Investigations on: increasing number of fish in Wisconsin lakes by artificial fertilization of water; methods for adapting bog lakes for trout; factors affecting breeding and growth of fish in Wisconsin lakes.

c. Algae control. Studies of factors involved in the growth of algae. Results may provide a basis for the development of methods for controlling growth by artificial means.

d. Growth factors in plants. Plant physiologists in the Botany Department have recently isolated and synthesized an agent known as Kinetin which increases the growth of plants by greatly stimulating cell multiplication. This discovery has tremendous implications for agriculture, and is proving to be very interesting to industries concerned with applications in the animal as well as the plant field.

The influence of Kinetin on the growth of animal tissues, and the relationship of such effects to the cancer problem is being investigated in the Zoology Department.

e. Antibiotics. Improved strains of the fungus which produce penicillin are being developed as part of an investigation which is concerned with the antibiotic producing yeasts and molds. Ultraviolet radiation

is being used in producing new kinds of antibiotic fungi. The penicillin of commerce is today being made either through direct use of strains developed in the University of Wisconsin Botany Department, or from descendants of those strains.

f. Relationship between European corn borer and corn plant. Study is of basic importance in development of a variety of corn which is resistant to the corn borer.

g. Animal parasites. Researches directed toward study of animal parasites and their hosts. Studies are being made of nutritional factors which will increase resistance of sheep to a nematode type of parasite, and the effect of a serious parasite disease (coccidiosis) on the chicken are specific objectives of this program. These studies have led to the development of methods for controlling these diseases which are of importance to Wisconsin as well as farmers in other states.

h. Genetic studies on fruit flies in relation to evolution. One aspect of this study has provided basic information for developing methods designed to determine whether an insect has become resistant to an insecticide, and for an understanding of how the resistance of insects to insecticides is inherited. These findings are of great economic importance to agriculture since it is now well established that many insects do acquire resistance to insecticides.

i. Mechanics of population regulation of wild rodents. Information which is being obtained by this study is important for the development of artificial means of decreasing the numbers of obnoxious animal pests such as wild rats, and for increasing the populations of desirable wild game species, such as deer and cottontail rabbits.

j. Effect of hormones on animals. These studies have resulted in the isolation of two hormones which will be of value in the treatment

of reproductive sterility in human beings and domestic animals.

A method for purifying hormones used in the treatment of a special type of sterility found in high incidence in dariy cattle has been developed by the researchers in the Zoology Department. The Abbott Laboratories have been marketing a preparation made by this method for several years.

Recently the researchers associated with the hormone studies have demonstrated that a synthetic hormone, believed for many years to be without promise in medicine, has properties that make it worth further investigation in connection with the study of cancer of the breast.

Methods are being developed in animals for determining which, if any, of a large number of synthetic hormone-like chemicals of unknown value might be effective in the treatment of rheumatoid arthritis in the human being.

U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

5/6/55

RELEASE: 3 p.m. Friday, May 6

Biology, dept of

MILWAUKEE, Wis.--Very marked reductions both in the number of caribou and in the occupied range in North America has occurred during the present century, Douglas Pimlott, University of Wisconsin wildlife biologist, reported Friday.

Pimlott's findings were included in a paper prepared for the annual meeting of the Wisconsin Academy of Sciences, Arts, and Letters being held at the Milwaukee Extension Division.

Pimlott has recently completed a two-year study of moose and caribou in Newfoundland.

Historical accounts in Newfoundland indicate that as late as the early 1800s caribou occupied all areas in Newfoundland that maintained suitable habitat. Estimates of total numbers at that time ranged from 100,000 to 500,000.

"On the basis of present knowledge of tundra carrying-capacity, it seems very unlikely that the population ever attained the level of 500,000," he said.

Caribou can still be seen in Newfoundland in considerable numbers--but it is necessary to go many miles into the bush to find them. "In the interior area it is still possible to see hundreds of caribou in a week's travel during the fall," he said, "and in this undisturbed area, the caribou population may still approach primitive densities."

The present Newfoundland caribou population ranges somewhere between 15,000 and 30,000 animals, he added.

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"Fire, forestry operations, and land settlement for agricultural purposes are the factors which have the greatest effect on caribou populations," he said. "Caribou habitat, in contrast to moose and deer habitat, is in the climax--mature--tundra and the climax spruce association of the boreal forest. The destruction of these climax vegetations limits the caribou populations."

Pimlott said that railroads and highways constructed between winter and summer range "has resulted in the caribou no longer using two areas where good habitat still exists. Whether the main factor in these cases was one of over-hunting or just of too much disturbance is not yet clear."

Pimlott said that research on the Newfoundland caribou herd will be continued to obtain better estimates of total numbers and, also, to learn more about the food supply available to the animals--lichens, in particular.

"It is to be hoped that research findings can be implemented in management programs which will halt the declining trends of the caribou populations across the continent," Pimlott concluded.

SCHOOL OF EDUCATION DOCUMENT 58 -- April 5, 1955

RECOMMENDATION FOR A MAJOR AND MINOR IN [BIOLOGY]

Students planning to major or minor in biology should consult Professor Stauffer, Botany, or Professor Noland, Zoology, by the beginning of the junior year.

MAJOR: A minimum of 40 credits, in addition to Education 97, which must include the following: (1) an elementary course in each of botany and zoology (ILS 33 and 34 may be credited for 3 credits each in botany and zoology); (2) genetics; (3) a course in each of the departments of botany and zoology in each of the three following fields: (a) physiology (Physiology 3 may be substituted for zoology physiology); (b) a field or systematics course; (c) morphology.

MINOR: The student shall present 20 credits in botany and zoology (ILS 33 and 34 may be substituted for 3 credits each in botany and zoology), including one advanced course in either of the two departments and a minimum of 6 credits in each department, in addition to Education 97.

The biology minor may not be combined with a botany or a zoology major or minor. If either a zoology or botany major or minor is taken, a minor consisting of 15 credits may be taken in the other department.

Education 97, The Teaching of Science, 2-5 credits.

WIRE NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE:

3/30/55 Immediately

Biology, dept of

MADISON--Research papers prepared by 75 University of Wisconsin scientists will be read at the 39th annual meeting of the Federation of American Societies for Experimental Biologists to be held in San Francisco April 11-15.

The papers will report on the research these scientists have been conducting during the past year.

The meeting of the federated societies is the principal scientific gathering of the year for researchers in the fields of physiology, biological chemistry, pharmacology, experimental pathology, nutrition, and immunology.

The following Wisconsin scientists are authors of papers for the scientific societies indicated:

American Physiological Society -- C. N. Woolsey, Konrad Akert, R. M. Benjamin, Herschel Leibowitz, W. I. Welker; Paul E. Sadler, Karl L. Siebecker.

American Society of Biological Chemists -- J. M. Price, Gordon E. Lindenblad; Henry R. Mahler, Harold Baum, George H. Huebscher; F. L. Crane, J. G. Hauge, Helmut Beinert; Salih J. Wakil; Ernest Kun, Mario Garcia Hernandez; T. E. Bachhuber, J. J. Lalich, E. D. Schilling, F. M. Strong; Harry A. Waisman, Carl Monder, J. N. Williams; R. E. Basford, Sanae Mii, David E. Green; Bruce Mackler; W. W. Wells, D. L. Coleman, C. A. Baumann; A. E. Harper, J. N. Williams Jr., C. A. Elvehjem; Mary Edmunds, G. A. LeGage; C. H. Kratochvil; Gladys Feldott Maley; Earl Jacobs, Miriam Jacob, D. R. Sanadi; James Leong Way; Kenneth C. Leibman, Charles Heidelberger; Laurens Anderson, June W. Halliday, Robert H. Coots; Dexter S. Goldman; Kenkichi

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ad one--biologists

Tomita, Henry Lardy; H. F. Deutsch, C. H. Kratochvil; A. C. Aisenberg, Van R. Potter; E. C. Miller, J. A. Miller.

American Society for Pharmacology and Experimental Therapeutics -- Jack W. Miller, Don H. Martin, Thomas M. Gilfoil; G. J. Mannering, L. S. Schanker, W. H. L. Dornette; Norman L. Carden, John E. Steinhaus; Elliot Spector, Donald P. Wallach, Wallace D. Winters, F. E. Shideman; O. Sidney Orth.

American Society for Experimental Pathology -- T. E. Bachhuber, J. J. Lalich, D. M. Angevine; K. M. Hsieh, H. T. Blumenthal.

American Institute of Nutrition -- M. L. Sunde; E. M. Jones, C. A. Baumann, M. S. Reynolds; Edward C. Naber, W. W. Cravens, C. A. Baumann, H. R. Bird.

American Association of Immunologists -- A. F. Rasmussen Jr., William D. Boring, Pamela J. Byatt.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

3/9/55

RELEASE: 4 p.m. Monday, March 14

[Biology, dept of]

MONTREAL, Canada (March 14)--A Manitoba mallard's innate aversion to neighborliness may limit the number of nests a waterfowl breeding ground can contain, a University of Wisconsin waterfowl biologist, Alex Dzubin, reported today.

Dzubin, in a paper prepared for the North American Wildlife Conference, reported that duck species breeding in the pothole nesting areas of Manitoba have such a strong urge to protect a large area near their nests that otherwise perfectly good nesting sites go unused.

He added that management measures to increase breeding ground productivity must take this unfriendliness into account.

The species involved most noticeably are the mallard, blue-wing teal, and the other puddle (as opposed to river) ducks.

Strangely enough, in other Canadian breeding areas these same duck species seem not to mind other breeding pairs in close proximity. Even in Manitoba, the unfriendliness extends only to members of the same species--other species can nest nearby almost at will. Why these things are true, biologists do not yet know except to say that they result from the evolution of behavior. What purpose they serve in the ducks' struggle for survival is yet a mystery.

"Areas with sufficient surface waters are quickly colonized to a saturation point," Dzubin reported. "Then the duck pairs attempt to exclude other pairs of their species from settling nearby."

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The size of the area defended by each nesting pair differs somewhat between species but is surprisingly large. For the mallard it is about 1,000 yards across; for the blue-wing teal about 250 yards.

In the Saskatchewan short-grass breeding region, however, these same species of ducks may nest so close together around a body of water that they actually begin to interfere with one another in home-life and family-raising. Exactly the opposite is true in Manitoba, where many favorable nesting sites go unused simply because they are near other nesting pairs.

Dzubin said that biologists can discern three areas important to a breeding duck pair. First is the area immediately around the nest. Second is the entire defended territory. Third, somewhere in this area, is the drake's favorite hangout. Here he spends much of his time.

In areas managed for duck breeding, Dzubin pointed out, vegetation and water areas suited to satisfy these three requirements of ducks must be apportioned properly into nesting pair territories to insure a maximum efficiency in use of the land available for duck production.

"A good interspersion of land and large and small water areas seems to satisfy these needs best," he said. "Poor drainage practices, of course, destroy the usefulness of the areas entirely and result in fewer young birds in the fall flights."

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE:

3/9/55

Noon, Saturday, March 12

[Biology, dept]

(March 12)

MONTREAL, Canada--Six pairs of moose, introduced into Newfoundland around the turn of the century, have given that island a population of 30-40,000 today, Douglas Pimlott, University of Wisconsin researcher assigned to study Newfoundland moose, told Canadian biologists Saturday.

In a paper prepared for presentation to a group gathered in Montreal to attend the North American Wildlife Conference, Pimlott said the moose population is now between two to five animals per square mile on the 17,000 square miles of good range in Newfoundland. The remaining 25,000 square miles of marginal or sub-marginal moose range contain some--but fewer--animals.

The pulp and paper forestry program in Newfoundland is fortunately well-suited to maintenance of good moose range, he added. Logging operations are small, well-dispersed, slow-moving, and practice clear-cutting. "We couldn't create a more ideal condition for moose if we managed it that way," Pimlott said.

There is now something of a trend toward larger camps, but operators are also experimenting to determine the minimum profitable rotation period, and Pimlott is convinced that the findings will eventually lead them back to practices "even more favorable for moose."

During the period 1945-52 there has been an unlimited sale of licenses and some 20,000 moose have been taken, he said. In 1953 Newfoundland had its first season for either sex and it is anticipated that these now will be bi-annual.

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Seasons for either sex will most likely be opened annually in the areas where moose are now much too numerous. "We may have an early-starting season in one irrupted area, with perhaps an additional month's hunting there," he added.

During his three-year contract to study moose for the Newfoundland government, Pimlott spent much time in the wilderness range of the moose and caribou studying the effect of forestry practices on browse, and the effect of moose, particularly, on forest growth.

"In Newfoundland, moose browse on two principal economic species--white birch and balsam fir. Moose control must be related to forest management as well as to our natural inclination to produce as many moose as possible," Pimlott continued.

"Our studies indicate that what would normally be considered a carrying capacity of moose limits the future capacity of growth of white birch--in high-density areas, 90 per cent of the birch is heavily browsed," he said.

"Where the population of moose is high, we seem to have a low reproduction rate--so we could produce just as many moose for hunters with a lower over-wintering population," Pimlott added.

"Another factor involved," he added, "is that Newfoundlanders have few other sources of fresh meat--and wasting half the available annual crop of moose is just not logical."

Caribou, on the other hand, have apparently always inhabited Newfoundland, but the caribou herds are dwindling somewhat. Migration patterns have been disrupted by roads and railroads and moose could have been partly responsible for the retreat of caribou into areas where optimum conditions still exist for survival.

"We actually know little about the caribou," he continued. "In one area we protect caribou during the open season on moose. The hunting regulations now state that hunters can have one moose or one caribou, and it seems unfortunate that many seem to prefer the caribou. Our management problems are somewhat complicated by our desire to keep the caribou herd healthy.

Pimlott said the introduction of whitetail deer has long been considered, but that he is strongly against it unless commercial hunting is permitted particularly in remote areas.

"The average Newfoundlander would not look unfavorably on commercial hunting," Pimlott pointed out. "His living has long been related directly to the harvest of game, to fishing, hunting, and sealing. But the whitetail might further complicate our management problems.

"We could increase our harvest of moose from the present annual kill of 3,000. Until we reach an optimum level in our moose harvest, it probably wouldn't be wise to introduce another big-game species," he concluded.

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WIRE NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

2/25/55 RELEASE: Immediately

Biology, dept of

MADISON--Dr. Homer W. Smith, physiologist, philosopher and author, of New York University College of Medicine, will deliver the annual Graduate Biological Division lectures at the University of Wisconsin March 2 and 3.

On March 2 the famed scientist will relate the story of evolution as told around the kidney in a lecture entitled "From Fish to Philosopher." This is also the title of Dr. Smith's latest book.

The following day Dr. Smith will speak on "The Development of Modern Renal Physiology."

Both lectures, to be given in 165 Bascom Hall, are open to the public without charge. The March 2 address will begin at 8 p.m. On March 3 he will speak at 4 p.m.

Dr. Smith,who is professor of physiology and director of the physiological laboratories at NYU College of Medicine, is recognized as the scientist giving more impetus to work on physiology of the kidney than anyone else. He has also achieved recognition for his interest in comparative religions. He is the author of "Man and His Gods," published a year ago and distributed by the Book-Find Club.

The scientist has received many awards for his contributions to scientific and philosophical thought, and also for his wartime service in research.

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WIRE NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

9/1/54

RELEASE: Immediately

Biology, dept of

MADISON--Twenty-two biologists from the University of Wisconsin will present research papers at the annual meeting of the American Institute of Biological Sciences, to be held Sept. 5-9 at the University of Florida, Gainesville.

The annual meeting of the institute is the largest and most significant scientific event of the year for American biological specialists in more than 20 different fields of research.

The Wisconsin scientists who have been selected to participate in the program are:

John W. Thomson, Delle Natelson, George H. Ware, John T. Curtis, Robert E. Duncan, John W. Woodard, and Philip S. Woods, department of botany; R. H. Roberts and B. Esther Struckmeyer, horticulture; R. A. Bryson and R. A. Ragotzkie, meteorology; Zafar Haidri and R. H. Burris, biochemistry; M. L. Morse, Joy Palm, M. R. Irwin, Wilmer J. Miller, H. Branch Howe Jr., Esther and Joshua Lederberg, genetics; and Dorothy Fennel and Kenneth B. Raper, bacteriology.

Wisconsin faculty members who hold office in societies which are part of the institute are Norman C. Fassett, president of the American Society of Plant Taxonomists; Joseph J. Hickey, treasurer of the Nature Conservancy; and Elva S. Meyer, second vice president of Sigma Delta Epsilon.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

4/30/54

RELEASE: 3 p.m., Saturday, May 1

MADISON, Wis.--Some hitherto unknown facts concerning two common songbird species and housing preferences of three more were revealed today by University of Wisconsin scientists to those attending the Wisconsin Society for Ornithology. A nati wide cooperative migration study was also described.

The findings are the result of research by UW biology and wildlife graduate students, Robert Ellarson, Wesley Lanyon, Robert Nero, and James Zimmerman.

Reporting on an 11-year study of bluebird and tree swallow nesting in the UW Arboretum, Ellarson said the location of nesting boxes had a lot to do with the species of bird selecting the boxes for nesting.

"Tree swallows preferred boxes completely in the open and seem to prefer tho that face an open meadow or marsh," Ellarson said. "The bluebirds prefer boxes nearer to trees or brush, although not quite as close to brushy cover as wrens seem to prefer

The boxes Ellarson used in the study were built of half-gallon tin cans with an inch and a half hole wired to posts about four feet from the ground.

Chief causes of tree swallow and bluebird nesting mortality were racoon and house wren predation. The wrens, Ellarson added, are fully capable of throwing eggs o another species out of a box or puncturing them and usurping the space for a nest of their own.

Lanyon described a tape-recording study of the songs of meadow larks which, with evidence obtained from a meadowlark he raised in 1952, led him to the conclusion that the lark's song is learned, not inherited as many scientists have believed.

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Lanyon's findings also throw considerable doubt on the theory that the "hybrid" song sometimes sung by meadowlarks is the result of mating between an eastern and a western lark.

"Isolation of the eastern and western meadowlark is by no means complete," he said. "Under conditions where both species breed on a common breeding ground, circumstances may influence the normal learning process of juvenile birds to favor the learning of both song types or a mixture."

Nero described the "symbolic nesting" activities of male redwing blackbirds which are undertaken "apparently as if to inspire his new mate to begin building."

The male redwing never actually does any building himself, but soon after the arrival of a female in the spot he has picked for breeding he "flies down into the marsh vegetation, elevates his wings over his back, moves through the dense stems with wings still partly erect, and then, while the female watches from nearby, bows down and manipulates cattail blades in the manner of a female building a nest," Nero said.

The male may do the same thing after a female has begun to lay eggs if she stays away from the nest too long to suit his sense of responsibility.

Zimmerman described a cooperative study by hundreds of professional and amateur ornithologists in the United States and Canada which is one of the most "ambitious ever initiated."

The ornithologists are recording spring arrival dates of bird species throughout the continent, obtaining information on length of flights, effect of weather, speed, and other facts which may aid scientists in solving the riddles of migration.

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WIRE NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

3/23/54 RELEASE: Immediately

Biology. Dept of

MADISON--Prof. William Brown, Fellow of the Royal Society of London, will speak at the University of Wisconsin Tuesday, March 30.

His speech, "The Physiology of Parasitism," will be at 8 p.m., in 102 Birge Hall, and is sponsored by the UW graduate biological division and the UW Committee on All-University Lectures.

Prof. Brown will remain in Madison throughout the week. He will speak on "Some Recent Investigations on the Physiology of Parasitism," on Thursday, April 1, at 3:30 p.m., in 102 Moore Hall, and will give a seminar in plant pathology on Friday, April 2, at 3:30 p.m., in 309 Moore Hall.

One of the leaders in biological and agricultural science in Great Britain, he specializes in plant pathology and mycology. He and his students have conducted a classical series of studies on the physiology of parasitism in which they have substantially advanced the knowledge of critical processes that determine the development of infectious disease in plants. Plant pathologists from his laboratory have carried Prof. Brown's teachings to many parts of the world.

The public is invited to all his lectures and conferences free of charge.

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U. W. NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

2/5/54 RELEASE: Immediately

Biology. dept of

MADISON, Wis.--University of Wisconsin biologists reported today that they have secured successful production of rainbow trout for three years in northern bog lakes given the chemical treatment developed at the University in 1950.

They say the hundreds of bog lakes that dot the northern landscape can readily be turned into another Wisconsin recreational resource.

In 1951 three Wisconsin lake scientists, Prof. Arthur D. Hasler, Oscar Brynildson, and W. T. Helm, reported that the water of bog lakes could be cleared by a simple chemical treatment and that once treated these lakes would support rainbow trout.

Prof. Hasler and Waldo E. Johnson announced more recent experiments today showing that acre-for-acre, these lakes can produce as many pounds of rainbows as some well-known Western mountain lakes can produce in Kamloops trout.

Recent experiments have been concerned with getting the right number of trout per acre for optimum growth.

"The suitability of these lakes for growing trout is obvious from the excellent rates of growth shown by the rainbow trout as long as they are not too crowded by excessively heavy stocking," the scientists say.

They point out that rainbow trout do not reproduce in bog lakes, but that most of the rainbow trout fishing in the north-central states is supported by stocking anyway, and the success of the program is judged by the percentage of stocked fish that return to the fisherman's creel.

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On one of the lakes used in the experiment, where 50 to 70 per cent of the spring-stocked trout was caught by fishermen during the summer, it was necessary to close the lake to fishing to have enough trout left for weight measurements at the end of the season.

The biologists point out this is good evidence that trout-stocked public lakes could stand heavy fishing pressure and fully justify the expense of treatment and stocking.

"In fact," they said, "this would augment stocking of rainbow trout in streams where the return is usually low. Fishing on these lakes is almost exclusively with flies. Trout are readily caught throughout the summer, another advantage because catchability of stream trout is usually low in summer."

The two biologists reported their findings in the latest issue of the Journal of Wildlife Management, a technical biological publication.

The trout-carrying capacity of the bog lakes they report, seems to be about 50 pounds per acre at the optimum stocking rate. Some fish are lost to natural causes, but this standing crop can yield 25 pounds per acre to fishermen without trout becoming too scarce for good fishing. This still leaves a few to grow and make fishing really exciting another year. Young are restocked each year to maintain the optimum population. By the end of summer, spring-stocked six-inch trout have more than doubled their length.

The northern bog lakes compare very favorably with many of the lakes used for the Kamloops trout.

"Stocking of 200 fry per acre maintains the Kamloops trout population in Paul Lake, British Columbia, which yields about 10 pounds of trout per acre to sport fishermen," they point out. "Stocking of 100 six-inchers and 40 somewhat larger trout in one of the experimental bog lakes brought a return of 18.4 pounds of rainbow trout for fishermen. This return was accomplished with a standing crop of only 28 pounds of trout per acre."

Trout growth is so successful in the treated northern bog lakes that the scientists say "it should be possible to justify late fall trout fishing seasons."

The biologists explain that the treatment consists of the addition of lime to the bog water lakes, but caution that indiscriminate use of the chemical by untrained persons would very likely have disastrous results. A careful study of lake conditions is necessary before treatment is made. They also explain that unauthorized additions of chemicals to Wisconsin lakes is illegal -- a measure taken by the State Legislature for another purpose but which also applies to addition of lime.

"These lakes will become valuable additions to Wisconsin's list of outdoor resources, and it will be necessary to take precautions against any unskilled tampering with the balance of nature," they say. Before a lake can be treated it must be examined by a skilled biologist, and the treatment procedure followed very carefully. The existing fish life is removed before treatment to prevent competition between trout and less sporting fish species.

The experimental lakes vary in size from three to 18 acres. Five are located on the Wisconsin-Upper Michigan border, and are owned by Guido Rahr, Manitowoc. A sixth is located in Chippewa County, and is on the property of Ben McGiveran, Milwaukee.

Three years ago the biologists expressed the belief that the lime treatment would prevent winter kill. Some of the work reported today was conducted on twin lakes -- one treated, one not -- and all of the trout died of winterkill in the untreated lake. Those in the treated lake survived.

The procedure of treatment and stocking could apply equally well to the hundreds of such lakes now on public land or to which the public has access.

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ad three--bog lakes

"The suitability of these lakes for rainbow trout offers a solution to an economic problem. If there is a demand for more trout water, and if the percentage return of stocked rainbow trout is low in streams, then there are hundreds of lakes throughout northern Wisconsin and Upper Michigan highly suitable for rainbow trout, where the percentage return to the fisherman can be extremely high.

"Many of these lakes are of little value for sport fishing at the present time and could offer excellent angling for rainbow trout. Any added value to sport fishing is extremely important to this area where the tourist industry is the backbone of the economy," they say.

"That there is a demand for better and more trout fishing is indicated by expensive stream improvement programs underway--a manner of improvement about which there is a need for more careful scrutiny," they add.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

6/1/53

Friday, June 5

RELEASE:

Biology, dept of

MADISON, Wis. (June 5)--A volume containing the known descriptive material on the microscopic organisms which are named Euglena, a connecting link between the plant and animal world, was published today by the University of Wisconsin Press.

The volume, entitled "The Genus Euglena," was written by Dr. Mary Gojdics, professor of biology at Barat College of the Sacred Heart, Lake Forest, Ill.

Dr. Gojdics began her study of the Euglenae more than 20 years ago at the UW. Since then she has continued her search for material on the subject, gathering it from the scientific literature and collecting specimens in the field over a wide area. The work also represents countless hours in the laboratory, examining and cataloguing the material she collected and that received from fellow workers in all parts of the country.

The purpose of "The Genus Euglena" is to facilitate the identification of the almost 300 species of Euglena. Original descriptions and drawings were made for Dr. Gojdic's book for all the species available for observation. Several new species as well as new varieties are included.

The volume is divided into four parts: a general description of the genus, a key to the 155 species and varieties considered valid with supplementary keys to the remainder, the complete taxonomy of all the enumerated species, and an annotated check list of all the species of Euglena to be found in the literature. There are nearly 40 plates with an average of seven drawings each.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

3/30/53 RELEASE: Immediately

MADISON, Wis.--More than 3,000 leading biologists from the Western Hemisphere will report their scientific findings of the past year and conduct symposia on major biological problems when they attend the annual convention of the American Institute of Biological Sciences, (AIBS), to be held at the University of Wisconsin Sept. 6-10.

The AIBS convention is the major annual gathering of biologists in America. Wisconsin is the fourth university to be selected as the meeting place for the convention, which is attended by the members of 19 biological societies affiliated with the AIBS.

In addition to the estimated 2,000 individual reports on research projects by biologists, the program will include eight symposia on topics of broad scientific interest.

A symposium on agricultural research will draw speakers from the United States, Mexico, and South American countries to discuss crops and disease control; a symposium on biology and industry will bring together distinguished experts on the use of chemistry in agriculture and the industrial applications of microbiology; speakers from both the U. S. and Canada will discuss the problems of pathogenic fungi.

Announcement of the selection of Wisconsin as a convention site was made recently by Dr. Clarence J. Hylander, Washington, D. C., convention director for the AIBS, and Dr. James Dickson, UW professor of plant pathology and chairman of the local committee on arrangements.

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The 19 societies which have so far indicated their intention to join in the convention at Wisconsin are members or affiliates of AIBS, Dr. Dickson said.

Arrangements to house delegates and families in University dormitories and other places near the campus have been completed, Dr. Dickson reported. Requests for reservations should be directed to the University of Wisconsin Housing Bureau between July 15 and August 15.

Meetings will be held in University of Wisconsin buildings, and an attempt is to be made to locate meeting rooms near the housing for each of the groups, Dr. Dickson said.

The following societies have indicated their intention of attending the 1953 AIBS meeting:

American Bryological Society; American Fern Association; American Microscopical Society; American Phytopathological Society; American Society for Horticultural Science; American Society of Limnology and Oceanography; American Society of Naturalists;

American Society of Parasitologists; American Society of Plant Physiologists; American Society of Plant Taxonomists; Biometric Society, ENAR; Botanical Society of America; Ecological Society of America; Mycological Society of America; Phycological Society of America;

Potato Association of America; Society of Protozoologists; Society for the Study of Evolution; Society of Industrial Microbiology.

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Memorandum to Chairmen of Departments in the Biological Division

NOTE PLEASE POST

BIOLOGICAL DIVISION

ANNUAL LECTURES - APRIL 1 AND 2

PROFESSOR CARROLL M. WILLIAMS

Harvard University

AN EXPERIMENTAL ANALYSIS OF METAMORPHOSIS OF INSECTS

A general lecture - illustrated with colored slides

April 1 8:00 P.M. 102 Birge Hall

HORMONAL-ENZYMATIC MECHANISMS IN THE CONTROL OF THE PUPAL DIAPAUSE OF THE CECROPIA SILKWORM

April 2 4:30 P.M. 102 Birge Hall

PROFESSOR WILLIAMS' contributions to the physiology of insect development has attracted widespread popular interest as well as international professional recognition in the form of honors and awards from National Academies and other learned Societies.

All interested are cordially invited to attend these lectures.

U. W. NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

12/2/52 RELEASE: Immediately

Biology, dept of

MADISON, Wis.--Extreme youth, the prime of life, and advanced age are the periods in which man is most apt to suffer fatal consequences from infectious disease, Sir Frank MacFarlane Burnet, Lasker Award winner and world famed virus expert, said recently at the University of Wisconsin.

The initially high susceptibility of newly-born children to disease is due in large measure to the inability of the body to control homeostasis or temperature regulation and metabolism.

However, a good control of homeostasis is quickly gained by normal infants. Resistance to infection improves rapidly during the first few months of life but does not reach full development until children are about 12.

"The high mortality of extreme infancy is due to the failure of the inadequately developed regulatory mechanisms to respond to the changes in the environment," he said. "The fatal infection is the one which, coming too early, presses the physiological mechanism beyond its limitations."

Then in the years around 15, youth has "an almost limitless capacity to keep its internal environment at the optimum level for the most efficient functioning of the body," Dr. Burnet said.

In the young adult around 30, infection calls for a mustering of all the forces of the body, and sometimes the violence of the response may do more harm than good.

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[Biology, dept of] 10-29-52

COLLEGE ACCREDITATION: Prof. Vernon Carstensen and W. B. Thiede;

COURSES: Profs. L. E. Noland, chairman; F. H. Harrington, L. M. Parks, and W. G. Rice;

DIVISIONAL COMMITTEES: Physical Sciences and Mathematics--Profs. M. L. Jackson, chairman; H. D. Bruhn, T. J. Higgins, P. C. Rosenthal, and F. M. Strong; Humanities--Profs. Einar Haugen, G. M. Orsini, and Samuel Rogers; Biological Sciences--Profs. P. E. Allen, D. M. Angevine, E. M. Foster, M. L. Jackson, J. A. Miller, and M. G. Lysenko;

GRADUATE SCHOOL: Research--Prof. E. N. Cameron; Research Assistants--Prof. G. S. Pound; Scholarships and Fellowships--Profs. F. G. Cassidy, R. U. Ratcliff, and W. H. Young; and University Publications--Profs. F. J. Hoffman and W. S. Stokes;

HIGH SCHOOL RELATIONS: Prof. R. H. Schacht;

HONORARY DEGREES: Profs. A. S. Barr, Charles Bunn, P. G. Fox, F. H. Harrington, S. M. McElvain, Helen T. Parsons, Helen C. White, and E. E. Witte;

HUMAN RIGHTS: Prof. Louis Kaplan;

KEMPER K. KNAPP BEQUEST: Profs. Ralph Nafziger and George Young;

LIBRARY: Profs. E. H. Ackerknecht, A. G. Ramsperger, and K. F. Wendt;

LOANS AND UNDERGRADUATE SCHOLARSHIPS: Prof. R. U. Ratcliff;

NOMINATIONS: Profs. W. R. Agard, H. E. Kubly, and Marjory MacLachlan;

OCCUPATIONAL DEFERMENT: Prof. M. L. Holt;

PUBLIC FUNCTIONS: Profs. H. L. Ahlgren, chairman; D. L. Osterheld, Capt. N. W. Ellis, navy commandant; Col. R. J. McBride, army commandant; and Col. E. P. Archibald, air force commandant; and W. B. Thiede;

PUBLIC RELATIONS: Profs. Porter Butts, C. C. Center, Viola Hunt, and LeRoy Peterson;

INDUSTRIAL RELATIONS: Profs. J. I. Kross and Richard Sullivan;

RADIO AND TELEVISION: Profs. H. L. Ahlgren and Walter Wittich;

MADISON NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

2/19/51

RELEASE: ~~Immediately~~

Biology

Madison, Wis.--A noted professor of biology from Stanford university, Dr. C. B. Van Niel, will give two lectures on the University of Wisconsin campus this week, the University announced today.

Wednesday at 8 p.m., Dr. Van Niel will discuss "Experiments on Denitrification," in the biochemistry auditorium, and Thursday at 8 p.m., he will talk on "Current Views on the Problem of the Origin of Life," in Birge hall auditorium. The lectures are sponsored by the graduate biological division of the University.

Professor Van Niel is an outstanding investigator in the field of comparative biochemistry of photosynthetic microorganisms and microbiologic classification. He is a member of the National Academy of Sciences.

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WIRE NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

9/13/50

RELEASE: Immediately

File Dept Biology

Madison, Wis.--Among the hundreds of leading American biologists presenting scientific papers at the annual meeting of biological societies sponsored by the American Institute of Biological Sciences and held Sept. 11-13 at Columbus, Ohio, were 24 biologists from the University of Wisconsin.

The Wisconsin scientists speaking at the meeting or contributing to the research reported in the papers delivered at the meeting are Profs. R. H. Roberts, B. E. Struckmeyer, and W. H. Gabelman, department of horticulture; Prof. Arthur D. Hasler, Warren Wisby, Oscar M. Brynildson, and R. W. Helm, zoology; A. E. Williams, plant physiology; Prof. Albert C. Hildebrant, plant pathology; Prof. R. H. Burris and I. H. Miller, biochemistry; Prof. Folke Skoog, S. E. Allen, Prof. J. F. Stauffer, David Archibald, Bruce W. Churchill, Prof. Myron P. Backus, Frank R. Roegner, Lloyd G. Wilson, Prof. John Curtis, Robert T. Brown, and R. P. McIntosh, botany; Israel Zelitch and Eugene Rosenblum, bacteriology.

In addition, two Wisconsin faculty members took part in panel discussions at the meeting. They were Prof. M. R. Irwin, genetics, and Prof. J. C. Walker, plant patholgy. Prof. Arthur D. Hasler presided at the meeting of the American Society of Limnology and Oceanography.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

4/15/50

RELEASE: Immediately

Madison, Wis.--University of Wisconsin regents indicated Saturday that they will ask the 1951 state legislature for a biennial building budget of more than 13½ million dollars---$12,557,367 for new construction in 1951-53, and $1,000,000 for remodeling and modernization.

Approving the recommendations of the University's Campus Planning commission, the regents assigned top priority to $550,000 for equipment for the Wisconsin General hospital, a $808,437 wing for the Home Economics building, and a $808,680 wing for the Milwaukee Extension center.

In an effort to bring the University physical plant into line with present-day demands for teaching, research, and public services, the regents said the University also immediately needs:

Two Biology building wings totaling $2,850,250, a $1,422,200 Bacteriology building, barns and other farm improvements at Madison and branch agricultural experiment stations totaling $500,000, greenhouses costing $300,000, a $2,497,800 addition to the Service Memorial institutes, a $2,820,000 first unit of a Social Studies building (for commerce and economics), and $1,000,000 for remodelin and modernizing structures not involved in the rest of the building program.

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These building figures, the Campus Planning commission pointed out to the regents, include the cost of individual heating plants. The present U.W. central heating plant is operating virtually at top capacity. An engineering survey is now under way on the campus to determine the comparative merits of individual heating plants vs. an enlarged central heating system, which would cost an estimated $2,500,000.

The regents also approved a long-range state-financed program involving more than 40 buildings and an estimated construction cost of $53,931,600. No priorities were assigned to these structures. They include:

Administration -- Administration and General Student Services building, $3,217,500;

Agriculture -- Agricultural Engineering, $524,600, Agriculture library, $55,000, barns and other farm improvements, Madison and branch Experimental stations, $630,000, Dairy and Animal Husbandry, $500,080, Food Processing, $869,400, Home Management - rural, $21,000, Home Management - urban, $40,000, Horticulture - Agronomy wing, $498,960, nursery, $89,600, Poultry, $559,000, Short Course dorms, $505,870, Short Course forum, $379,800, Veterinary Science, $535,800;

Athletics and Physical Education -- Gymnasium - women, $2,376,000, Sports hall - gym for men, $3,279,250;

Buildings and Grounds -- Central garage, $172,500, Central storage, $330,000, Heating station, $2,500,000, modernization and extension of utilities systems, safety devices, roads, etc., $1,000,000, Service building, $330,000;

Education -- Education and Practice schools, $4,168,000;

Engineering -- Engineering building, completion of, $3,628,900, Engineering Research laboratories, $392,300;

Extension division -- Extension - Madison, $1,218,540, Extension - Milwaukee, $3,024,870;

Law -- Law - West wing, $476,790, Rebuilding of center Law building, $603,680;

Add 2 - UW Building Budget

Letters and Science -- Bascom additions, $1,363,460, Bascom remodeling, $456,000, Chemistry, $5,963,100, L & S departments, building for, $3,675,000, Music, $1,921,000, Observatory, $275,000, Physics addition, $843,000, Rebuilding old Chemistry building for Psychology, Pharmacy, and others, $874,720, Social Studies building, completion of, $1,776,000;

Medical School -- Corridors - Medical, $100,000, Student infirmary, $239,880, School for Nursing, $131,300;

Military -- ROTC-NROTC, $3,861,000;

Radio -- Radio, $524,700.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

10/20/49 **RELEASE:** Immediately

File agriculture
Biology

Madison, Wis.--The University of Wisconsin's lake-and-stream research program is receiving cross-country attention this week in the columns of a national magazine.

An article in the October issue of "American Forests" pays tribute to Arthur D. Hasler, University zoology professor, and his work in the study of hydrobiology.

Professor Hasler, the article says, is an authority on the "eutrophication" or aging of lakes. From his research, Hasler has concluded that fertilization, either deliberate or accidental, hastens the aging of a lake.

Old or "eutrophic" lakes have a habit of smelling badly in the summertime, the article states. It cites Lake Monona at Madison as an example.

Hasler is quoted as saying:

"From all evidence so far reviewed, where there is a heavy flow of surface drainage from agricultural lands or especially from urban sewage, lake 'youth' may change to 'age' in the short period of a few decades.

"The problem is especially serious because there is no way known at present for reversing the process of 'aging'."

Professor Hasler is one of a large group of University scientist / engaged in a fundamental attack on the problems of fresh-water conservation..

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WIRE NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

9/1/49 RELEASE: 11:30 a. m. Thursday

Botany Dept.

Madison, Wis.--The problem of feeding a world faced with a predicted fate of insufficient food can be solved if people are willing to develop the necessary social institutions.

This was the keynote struck Thursday morning by A. C. Orvedal, U. S. department of agriculture authority from Beltsville, Md., at the opening session of a University of Wisconsin Centennial symposium on "Mineral Nutrition of Plants."

"In our view, the soil problems...are manageable in the biological and physical sense. Through the application of science and the expansion of research where needed, no predictable limit of production can be foreseen," he emphasized.

"This is not saying, however, that mankind will be well-fed. The social, economic, and political problems are many and difficult. The technical problems of soils, plants, and animals, great as they are, are small by comparison.

"Perhaps the really big question is: How badly do we want abundant food in the world? How much are we willing to sacrifice now, as individuals, and groups, and nations? They cannot be answered scientifically.

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"What soil science says is that if people wand an efficient agriculture producing abundant food on a sustained basis and are willing to develop the necessary social institutions, they may have it."

Orvedal pointed out that there are great areas of underdeveloped land in the world, particularly in the tropical regions. He roughly estimated that there are about one billion acres in the tropics and some 300 million acres north of the temperate region that could be utilized by agriculture.

Proof that this acreage can be used for farming can be seen in the successful corridor crop rotation program used in the Belgian Congo and the efficient agriculture of Finland and other Scandinavian countries, he said.

"It must be emphasized," he explained, "that these new acres will be difficult acres in contrast to some of the land settled by Americans in the past 100 years."

Orvedal went on to say that the acreage will require clearing and careful management from the start. He noted that most of these undeveloped areas are in the interior of continents and that in order to use them, medical facilities, local industry, and electric power must go along with agricultural development.

Turning from the fact that there are immense new areas in the world which can be cultivated, Orvedal revealed that all this land is not yet needed. He pointed out that it is practicable to increase agricultural production in this country by about 20 per cent on most items and even more on others. He suggested that other countries could show increases as well.

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"Thus taking the two together--the potential new soil and the demonstrated potential production under good management on land already being farmed--the world could have food far beyond the amounts estimated as required for the world population in 1960," the agricultural expert emphatically declared.

He emphasized however, that these estimates indicate what could be done with our present knowledge if adequate institutional arrangements were made for effective soil use on a sustained production basis. He also pointed out that his estimates probably are optimistic in terms of the real political and economic situation that we see about us.

##

University of Wisconsin News Service
9/24/48

Release Sunday,
Sept. 26

Madison, Wis.--The University of Wisconsin carillon will ring out 1:30 and 5:30 weekday afternoons this year, Saturdays before football games, 10:30 a.m. and 3:30 p.m. Sundays.

Peter K. Nelson plays the huge instrument, 50 feet up in its tower on Black Hawk knoll. He is a graduate assistant in biology, and he has one man occasionally taking his place at the carillon, Edward Hugdahl.

Nelson adapts his own music to the carillon. "Handel's works beautifully," he says, "and some of the simpler things of Mozart, too. Rich harmonies won't do, but quite rapid things work very well."

The carilloneur doesn't specialize at all, except that he plays songs for the holidays when they come. Christmas week he plays only Christmas music, and he doesn't play at all from Ash Wednesday until Easter.

Nelson started playing in the fall of 1945. He hopes to study more this fall under Frederick L. Marriott of the University of Chicago.

Visitors stand 300 to 1000 feet away to hear the university carillon best. They may go in whenever the bells are playing, but as Nelson puts it, "they take the steep steps inside at their own risk."

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A carillon, he explains, is a set of bells played from a keyboard. Rich music results from using the five tones of each bell---humtone, fundamental, nominal, and two minor ones.

Playing, the carilloneur strikes the keys with his whole hand, and foot pedals make three to six tones possible on one chord. Keys connect to clappers inside the bells.

University of Wisconsin classes of 1917 through 1926 paid for the carillon. They meant their money to go for chimes in Bascom hall's dome, Nelson says, "but it turned out that Bascom had no dome, and someone thought of a carillon tower."

Harold L. Ickes of the federal public works administration promised more money. And Gillett and Johnson of Croydon, England, cast and installed the instrument.

There were twenty-five bells when the tower was dedicated in 1936, and five more were added in 1937.

Some graduating class still has a chance to contribute, Nelson says. The tower could use a mechanism to strike hours and quarters. "And there are empty spaces where the six largest bells belong."

The six needed bells would cost 12 to 15 thousand dollars all together,Mr. Johnson of Gillett and Johnson has estimated.

The largest bell of the university's carillon is the E flat. It is 52 inches in diameter, 48 high, and weighs 3,109 pounds. The smallest, the B flat, is 10½ inches in diameter, 10 high, and weighs 32 pounds.

Architect Arthur Peabody designed the carillon tower which is of solid limestone, 85 feet high and 22 square.

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uw
news

From The University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: (608) 262-3571

Release: Immediately 8/29/78 emd

CONTACT: Bryant Kearl (608) 262-1304

TOP PERSONNEL POSITION GOES TO JOURNALISM PROFESSOR

MADISON--Journalism Professor Mary Ann Yodelis Smith has been appointed to the top personnel post at the University of Wisconsin-Madison.

Effective immediately, Smith is the University's first associate vice chancellor for academic affairs in charge of faculty and staff development. She will coordinate the Academic Personnel Office, the Non-Academic (Classified) Personnel Office, and the affirmative action and equal employment opportunity programs.

Smith will be responsible for applying state, federal and university personnel policies. She also will help administer sabbaticals, instructional improvement and in-service training.

"We wanted to fill the position with someone who is regularly involved in teaching, research and public service," said Vice Chancellor for Academic Affairs Bryant Kearl. "Professor Smith will be continuing some of those activities while serving as associate vice chancellor."

In recent months, Smith has chaired the Wisconsin Bar Association's Free Press-Fair Trial Committee, which will issue its report this fall. She is a member of the Professional Freedom and Responsibility Committee for the Association for Education in Journalism as well as the Committee on Accreditation of Schools and Departments of Journalism. She also is a former head of the association's history division.

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Smith serves on the editorial boards of Journalism Quarterly, Journalism History and Journalism Monographs. She is also a former chairperson of the Ad Hoc Committee on the Status of Women in Journalism.

Reared in Iowa, Smith attended Morningside and Briar Cliff Colleges. She was an administrator at Briar Cliff before earning her master's and doctoral degrees at UW-Madison. She taught for a year at Indiana University and then started teaching at UW-Madison in 1972.

In 1975, Smith received one of the University's Distinguished Teaching Awards, one year after winning a similar honor from an organization of journalism students. She has taught communications history and law at both the graduate and undergraduate levels as well as basic journalism writing and editing.

Smith's research topics vary from journalism in Colonial America to such modern issues as women and minority group members in the media or news reporter's privilege. She has served on many University committees and was a member of the Faculty Senate.

###

The University of Wisconsin

Zoological Museum

L.E. Noland Zoology Building
250 North Mills Street
Madison, Wisconsin 53706 USA

Phone: (608) 262-3766 | Fax: (608) 262-5395
Email: uwzm@mailplus.wisc.edu
http://www.zoology.wisc.edu/uwzm/index.html

The University of Wisconsin-Madison
Digital Zoology Collection
http://digital.library.wisc.edu/1711.dl/Zoology

The University of Wisconsin Zoological Museum (UWZM) is a research facility available to UW faculty and students as well as researchers from other institutions, national and international, and to interested members of the general public. We also provide specimen loans and support for campus courses. UWZM specimens, collected 1840 to the present, have contributed to countless studies in taxonomy, systematics, morphology, faunal analysis, developmental biology, ecology, pathology, and conservation biology.

UWZM key features include:

• **Mammal Collection:** Mammals from Wisconsin are strongly emphasized and regions of North and South America are well represented. Many specimens are from the period of the first state and national biological surveys. Specimens include those collected by mammalogists H. H. T. Jackson, Ernest P. Walker, Joseph Grinnell and the special collections of A. W. Schorger and W. B. Quay.

† **Harland S. Mossman Histology Collection:** This collection includes the most extensive (100,000 specimens) comparative collection of preserved female mammalian reproductive organs and fetal membranes, as fully prepared microscope slides and fluid specimens.

• **Bird Collection:** The UWZM bird collection includes study skins, mounts, nests, and eggs. In addition to highlighting Wisconsin species, the bird collection contains specimens from nearly every avian family resulting from research in North and South America, Africa and Asia. Birds are among our oldest specimens (ca. 1845); in addition to our decorative Victorian mounts, like the one pictured here, the collection includes egg sets from the late 19th century, specimens collected by Wisconsin ornithologists Thure and Ludwig Kumlien, and specimens obtained on expeditions from the 1870's to the Arctic and South Pacific.

• **Herpetology Collection:** The herpetology collection includes specimens from around the world. Those from Southeast Asia, Africa, Mexico, and South America have resulted from expeditions of faculty, graduate students, and collaborators. Wisconsin reptiles and amphibians at the museum form the database for the book "Natural History of Amphibians and Reptiles in Wisconsin."

• **Ichthyology:** The fish collection includes thousands of lots of fish from at least 1200 collecting localities throughout Wisconsin. Significant additions to the collection were made from 1960 to 1978. During that time, over 1000 collections helped to establish the fish database for southern Wisconsin and aided in the research for the revised version of "Fishes of Wisconsin." The DNR continues to deposit vouchers from lakes and streams throughout Wisconsin.

• **Osteology Collection:** This is one of the most diverse and outstanding collections of complete skeletons in the United States; it contains more than 17,000 specimens from all vertebrate classes and has representatives of all Wisconsin families, and most families occurring in the United States and Latin America. This collection is used extensively by researchers in zoology and zooarcheology (Department of Anthropology).

† **Galápagos:** The UWZM is one of the few institutions outside of Ecuador permitted to salvage specimens from the Galápagos Islands; over 1,300 specimens represent most vertebrates from the islands and are present as skeletons or preserved specimens.

Not printed with State of Wisconsin funds

• **Limnology:** The Limnology collection contains thousands of plankton samples and prepared slides, which are used to demonstrate the long-term ecological changes specifically in 7 northern and 4 southern Wisconsin lakes and their surrounding landscapes.

• **Paleontology:** This collection includes Wisconsin specimens of the Giant Beaver and Mastodon. In addition, the John T. Robinson Collection (including early hominid and primate materials from Robert Broom and The Wenner-Gren Foundation) which provides instructional basis for Paleo-anthropology, is available at the UWZM. (Most UW vertebrate and invertebrate fossils can be found in the Geology Museum.)

• **Wisconsin Mollusks from Mississippi Drainage:** 25,000 lots of mollusks were collected in the 1970's and 1980's and are used for comparative studies of ecological changes in the rivers and wetlands.

• **Wisconsin Crayfish:** The crayfish collection, made through the 19th century from important Wisconsin watersheds, contains some species which have since become endangered or extinct, demonstrating change in water quality and stream ecology over time.

• **Historical Objects:** Scientific instruments and other items used for biological instruction and research, acquired between the 1880's and the early 20th century, are preserved at the museum and provide a brief history of natural science instruction and research at UW.

• **Library Resources:** Studies at the museum are supported by a reference library of about 3000 books, 200 dissertations and theses, and several thousand monographs, reprints, and journal issues.

Students and Researchers are Welcome to Use these Resources

For use of specimens in the Museum, please telephone (608) 262-3766, so the registrar can arrange a work space and make available the needed specimens. Planning ahead for such use is requested, since numerous courses are scheduled for specimen study in the same laboratory space.

To help advance the teaching, research, and public service efforts of the University of Wisconsin Zoological Museum, I contribute $_____.

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