2,500 gather for OSU meet

The future of man and his world will be debated this week at Ohio State University as 2,500 scientists gather for one of the nation's largest biology conferences.

Paul Ehrlich, author of The Population Bomb, is among the opening speakers Monday morning at Mershon Auditorium at the convening of the 38th annual meeting of the American Institute of Biological Sciences. Ehrlich, a professor at Stanford University, speaks at 8 a.m. on "Population Biology, Conservation Biology and the Future of Humanity."

The meeting, which continues through Thursday, will also include lectures on world hunger, plant defense mechanisms, threats to tropical forests, acid rain, genetic engineering and the use of artificial intelligence systems for biological research.
Professor speaks on future of humanity

By Cole E. Hatcher
Lantern staff writer

Population biology is an important branch of science that is leading to an understanding of the entire "human predicament," a Stanford University professor wrote in a speech scheduled to be delivered on campus today.

Paul R. Ehrlich, Bing Professor of Population Studies, is scheduled to present the speech, "Population Biology, Conservation Biology and the Future of Humanity," at 8 a.m. today, at Mershon Auditorium.

Ehrlich is visiting Ohio State as part of the 39th Annual Meeting of the American Institute of Biological Sciences, or AIBS, which is being held on campus Aug. 9-13.

Population biologists study the relationships between living creatures and relationships between the creatures and the environment.

In his speech, Ehrlich wrote, "On the broadest scale, (an) understanding of the entire 'human predicament,' from the impacts of overpopulation (to the) deterioration of the human environment ... to the probable impacts of thermonuclear war, is rooted firmly in what population biologists have learned about the biosphere and how humanity fits into it."

He wrote that some of the areas in which population biologists can aid other researchers are in discovering how inherited diseases are passed along in families, how high-yield agricultural products and sustainable forests can be developed and how the risks of poisonous chemicals can be evaluated.

In his speech, Ehrlich also called for a quadrupling of federal funding for population biology research.

Ehrlich is the author of the "The Population Bomb," a 1968 book in which he discusses the threat that overpopulation poses to the entire world.

In the book, Ehrlich states that many of mankind's inalienable rights are violated by overpopulation. Ehrlich says these rights include having enough food to eat, pure water to drink and clean air to breathe. He said these rights also include the right to live without being overcrowded and to live without the threat of thermonuclear war.

This year's meeting of the American Institute of Biological Sciences is the third such meeting to be held at Ohio State since the Institute was founded in 1947.

The first meeting to be held here was in 1950, the second in 1960.

Sandra D. Rutkowski, associate editor for the College of Biological Sciences, said about 2,500 scientists are scheduled to attend the meeting.

Charles C. King, director of the Ohio Biological Survey and adjunct professor of entomology, is the general chairman for the meeting.
OSU speaker warns of overpopulation

By David Lore
Dispatch Science Reporter

The billions spent on medical research won’t protect us unless we also cure the ills of the Earth, population biologist Paul R. Ehrlich said yesterday in an address at Ohio State University.

Ehrlich is the Stanford University professor whose 1968 book, The Population Bomb, focused public attention on world overpopulation. He said yesterday that Americans worry too much about cancer in their bones and not enough about the cancers — pollution, overpopulation and reckless development — man inflicts on the environment.

IT IS FOLLY to spend $1 billion annually in the United States for medical research but only $50 million a year for population biology, the science of how species relate to their surroundings, Ehrlich said.

“If we don’t cure the problems of our ecosystem, we’ll be lucky to have a life span of even 35 years,” Ehrlich told a meeting of the American Institute of Biological Sciences.

As spokesman for a group called the Club of Earth, Ehrlich said the federal government should immediately quadruple spending on population biological studies to $200 million. Eventually, this research should command a $4 billion annual budget, the same amount now allocated to medical research through the National Institutes of Health.

WHY?
- Except for AIDS research, we do not need more medical research to survive as a society and as a species, Ehrlich said. Ignorance of our environment, however, threatens all life.

“We are currently losing species, damaging our biological environment and depleting natural resources at an unprecedented rate,” the Club of Earth says. “Unless humanity’s course is changed, we believe it will be impossible to maintain civilization as we know it for very long.

- Human health depends more on nutrition than on medicine, yet agriculture is in big trouble because plant diseases and pests are rapidly becoming immune to chemical pesticides.

- Global human population tops 5 billion, compared with 2.7 billion when Ehrlich wrote his book. The author said he’s gratified that overpopulation is recognized today as a major hazard. But it’s still getting worse, he said.

He urged biologists to support through higher professional fees the establishment of a Population Biology Institute in Washington.

Such an institute would lobby Congress for greater spending in population and environmental studies and promote public education on global resource issues.
Sciences lacking women faculty

By Terri Eakins
Lantern staff writer

Women tend to be discriminated against in the academic profession, not because they have low prestige, but because they are completely outside of the prestige system.

— Margaret Davis

Prestige for women in the fields of the biological sciences is slowly increasing, but the percentage of women holding faculty positions is relatively the same as 20 years ago, according to a University of Minnesota professor.

"This is a very discouraging statistic because it really means that women have not made very much progress," said Margaret Davis, a professor in the Department of Ecology and Behavioral Biology at the University of Minnesota.

Davis spoke during a luncheon Wednesday for the 38th annual convention of the American Institute of Biological Sciences, held at Ohio State, which ends today. It has been running since Sunday. The luncheon, attended by about 175 men and women, was sponsored by Collenchyma, an organization for women studying botany at Ohio State.

"In medicine and law, the number of women who have entered these professions (as faculty members) is very much larger and there is a similar tremendous percentage increase in engineering," Davis said, "Whereas, in faculty positions in the sciences, the percentages have remained very low."

In a quote from Theodore Caplow and Reece McGee's book, "The Academic Marketplace," Davis said, "Women tend to be discriminated against in the academic profession, not because they have low prestige, but because they are completely outside of the prestige system."

Prestige is viewed as faculty appointments to well-respected colleges and universities.

Davis said, for some women, it was easier to get faculty appointments just shortly after affirmative action became a regular practice on university campuses in the 1960s. But now it is more difficult to get positions because the job market has become very tight.

"But women have slowly been moving into prestigious academic jobs, so that now, there is a difference in the distribution of women in the sciences and as a result, a change in the power structure of our profession," she said.

"I think the lack of aggressiveness among women faculty members, even for their own behalf, stems largely from this feeling of being unwelcome at academic institutions."

Davis said women should be alarmed by the lack of solidarity among women faculty members. She said terrible pressures between co-workers are created when people are unable to support each other.

Davis believes that increased attention to the importance of women in graduate studies is a good indicator of improvements in faculty and research positions in the sciences.

"There has been a major change in the attitude towards young women graduate students by the older faculty," Davis said. "It's very different from before when we weren't taken seriously — but we are now."

"This is the first real important step toward equality in the sciences," she said.

Members of Collenchyma are conducting a survey among women during the convention to discover their reasons for choosing a career in the sciences, said Finley Brian, a former graduate student in the Department of Biology, who now works for the Ohio Department of Natural Resources.

After the surveys are compiled, Collenchyma will submit the results to scientific-related academic journals.
Human race in line for finish: Ehrlich

By Robert Geelchion

Civilization could collapse during the next few decades if humanity continues to ignore the principles of population biology, a Stanford University professor said Aug. 10.

"If the lessons of population biology are not learned and acted upon soon, it is likely that all the systems that support human welfare will collapse," said Paul Ehrlich.

"The wars on disease, hunger and poverty will be lost and surviving human beings will be fortunate to have 40-year life expectancies." Ehrlich, Bing Professor of Population Studies in Palo Alto, Calif., gave the keynote speech at the 38th annual meeting of the American Institute of Biological Sciences, held this week at Ohio State.

Population biologists cannot afford to be timid, Ehrlich said. They need to make their voices heard.

To accomplish this, he proposed a more active role in lobbying federal leaders for support for the biological sciences. This might lead to increased federal funding for research from the current $50 million per year level to $4 billion a year, putting the biological sciences support on a par with that awarded the National Institutes of Health.

The need for research in this area is at least as important, if not more so, than current medical research to fight cancer, Ehrlich said. "The persistence of society would be secure if no progress were made on a cancer cure for 50 years, but there are very real deadlines for solving humanity's ecological problems."

Population biology is the study of how groups of organisms, including humans, other animals and plants, interact with each other and their environments. It includes ecology, evolutionary biology, behavior and 

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Human failure to heed this discipline's warnings has led to much suffering and economic loss, he said. "Population biologists warned about (the possibility of) an AIDS-type crises two decades ago, but the warnings were ignored," Ehrlich said.

"The abusive and useless applications of pesticides" has resulted in the loss of billions of dollars, he noted, pointing to another problem.

Part of the challenge population biologists face lies in the fact that they seem to always tell people things they don't want to hear, Ehrlich said.

"The ever-increasing scale of human activities will lead inevitably to lower standards of living, less healthy lives, and quite likely the collapse of civilization."

Agriculture, fisheries and forestry "are even more important to human well-being than the classical health-related fields," he said.

There is much population biologists are doing to help make "many aspects of the human predicament much simpler," Ehrlich said. Researchers are developing more efficient methods of pest control, which would seek to limit the indiscriminate use of pesticides.

Population biologists can help with other problems through their research, Ehrlich said. They include evaluating the risk of toxic chemicals, learning how humans are altering the Earth's environment, investigating a more efficient and ecologically sound way of producing food and determining just how many people the Earth can comfortably support.

The work of population geneticists helped increase knowledge about inherited diseases, Ehrlich said. "The success of high-yield agriculture is based firmly on advances in the application of quantitative genetics," he said.

Despite the work of population biologists, research in this area is woefully underfunded, he said. He believes National Science Foundation support for population biology research should be increased immediately from the current annual $50 million in support to $200 million, followed by a gradual increase to the $4 billion mark.

He proposed a Washington-based institute that would play a large role in lobbying for new funds. "This institute could help translate the results of research by population biologists for use in the public policy arena," he said.

Ehrlich blamed his own kind for their failure to organize.

"We (biologists) are to a large degree responsible for the relatively inferior status of our discipline," he said. Debates within the field have diverted attention and energy from the more serious problems facing humanity.

World environmental problems, overpopulation and other dilemmas make it vital for population biologists to speak up.

"Population biology is advancing at a rapid pace. It is probably the single most important branch of science from the viewpoint of solving the human predicament. If we population biologists don't make the most of that, who will?"