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American Society of Parasitologists

NEWSLETTER



Newsletter:

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From the *Editor of the Newsletter*

The ASP newsletter accepts information and news of a parasitological nature from all disciplines. Please assist me in making the content of the ASP newsletter highly relevant. We will be posting material on the web as they are generated by you, the **reader** and **contributor**.

Scott L. Gardner, Curator
Harold W. Manter Laboratory of Parasitology
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NEWS

Toward a Pan-American Society of Parasitology

In the last few issues of the newsletter of the American Society of Parasitologists, we had the pleasure of introducing the mission statements of two institutions in South America that hold important biological / systematics parasite collections. Through their contributions, the curators stated the aims and presented a profile of their institutions summarizing research based on institutional collections conducted

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in their laboratories. The reason we transmitted those statements to the membership of the ASP at large is simple: we want to serve as a channel so curators and scientists from across the New World can inform the Society about their research in parasite systematics and biodiversity. Needless to say, systematics has been, and continues to be, an important line of research for members of the Society – a cornerstone in the scientific endeavor – with articles in every issue of the Journal of Parasitology.

The importance of these brief presentations lies on the work that we do in common with other parasitologists across the Americas. This makes us think about the possibility that the ASP could merge with other societies of parasitology in the New World. For years some members of our society had expressed the need of integrating the national societies of our hemisphere into a Pan American Society of Parasitology. At the beginning of the 21st century, there are several events that hint at a gradual integration of some national societies. Yet, making a stronger ASP may be necessary to guarantee a successful merging.

Combining societies of parasitology from the New World would be a formidable task, not only because of logistics, but because of the problems that we face today as parasitologists within the science community at large. As examples we point to the continuing decrease in membership, the reduced presence of parasitologists as faculty of major and minor universities, and the perceived lack of identity and feeling of membership in the ASP. The diversity of interests of members of the Society should be used as a positive aspect for our society.

To increase the vitality of the ASP, it is necessary to state clearly the goals of our society and make public the results of the hard work done by various ASP committees, especially those that produce materials useful for the general public. We think that the public should understand that parasitologists are – in a broad way – interested in the study of animal-animal interactions and the factors that facilitate it. Nevertheless the implementation of a simple and elegant definition of our endeavor would need a thorough discussion and evaluation of the points we all agree upon.

Any educated person would infer that the American Society of Parasitology unites people interested in the study of parasites. However, how do we make sure that the information is transmitted to the general public in a non-technical manner? What do we do to make sure that we use all of the expertise available in our own society to integrate this knowledge and make it accessible and usable? How do we promote parasitology among other disciplines and sciences? Most of those activities are performed by committees specifically appointed that should release their results in a periodical manner.

It would be worthwhile to evaluate the potential contribution of ASP to other societies based on any experience solving problems in the long term. If ASP is not attractive to the new generation of scientists in the United States, how it is going to be attractive to scientists from other countries?

We will continue to present the work of scientists from all over the new world, south of the Rio Bravo, to show the vibrancy of parasitology in these "Latin American" countries.

The Editors

Washington, DC—The American Institute of Biological Sciences (AIBS) and the Natural Science Collections Alliance (NSC Alliance), each a major umbrella group for biological science organizations, have signed a strategic partnering agreement that will advance the public policy interests of biologists, natural science collections, and the research and education communities that utilize these facilities. The partnership provides a valuable bridge between the scientific research and education communities represented by AIBS and the NSC Alliance, as well as the opportunity for scientists in the fields of taxonomy, systematics, ecology, and evolutionary biology to work with AIBS and the NSC Alliance on public policy and advocacy goals in support of their science.

The partnership will give the NSC Alliance's 100-plus institutional members equivalent status in AIBS's membership rolls of scientific societies and other organizations, currently numbering approximately 90--thereby allowing NSC Alliance members to enjoy the institutional membership benefits of both organizations. Also under the agreement, AIBS director of public policy, Dr. Robert Gropp, will serve on a cross-appointment as director of public policy for the NSC Alliance. This arrangement provides the NSC Alliance with an experienced science policy professional to represent the organizations' interests in Washington, DC, as well as the other resources offered by the AIBS Public Policy Office.

"Natural science collections form a foundation for much of comparative biology and provide a critical base for verification of many studies. Many of the fundamental issues faced by AIBS are also of interest to our members. Together we have a much greater chance of solving them," said NSC Alliance president Dr. Terry Yates.

In recent years, AIBS has been actively involved in collections-related policy issues. For instance, the Public Policy Office's Washington Watch column in the AIBS journal, *BioScience*, has helped raise awareness of the issues many university-based collections have faced in recent years. Moreover, AIBS is at the forefront of work being done in the area of biological research infrastructure planning.

The NSC Alliance has been active in advocating for the need to support the nation's biological collections as a vital national resource and to make the information contained in these collections available to the broader AIBS community to help solve societal problems.

"This is an excellent opportunity for the biological science and natural science collections-based research communities to leverage resources," said AIBS executive director Dr. Richard O'Grady. At a time when research budgets for fundamental biological research are at risk of becoming stagnant, or even back-sliding, it is important for scientists to speak with a common and coordinated voice.

About AIBS: The American Institute of Biological Sciences is a nonprofit scientific association headquartered in Washington, DC, that serves as an umbrella organization for the biological sciences. It was founded in 1947 as a part of the National Academy of Sciences and has been an independent organization since the mid-1950s. AIBS engages in coalition activities with its members in research, education, and public policy; publishes the peer-reviewed journal, *BioScience*, and the education website, www.ActionBioscience.org; manages the project office for the National Ecological Observatory Network, www.neoninc.org; coordinates education and outreach activities for the National Evolutionary Synthesis Center, www.nescent.org; provides scientific peer review and advisory services to government agencies and other clients; convenes scientific meetings; and performs administrative services for its member organizations.

To learn more, please visit www.aibs.org.

About NSC Alliance: The Natural Science Collections Alliance is a Washington, DC-based nonprofit association that supports natural science collections, their human resources, the institutions that house them, and their research activities for the benefit of science and society. NSC Alliance members are part of an international community of museums, botanical gardens, herbariums, universities, and other institutions that house natural science collections and utilize them in research, exhibitions, academic and informal science education, and outreach activities.

To learn more, please visit www.nscalliance.org.

AIBS Public Policy Report, Volume 6, Issue 20, October 11, 2005

- Congress approves first continuing resolution to fund federal government
- Agriculture and Defense appropriations update
- AIBS and BSCS Release Evolution Book and Video
- Senate committee approves USFWS, EPA nominees
- House Government Reform Committee Recognizes the Year of the Museum
- House passes major changes to Endangered Species Act
- Senate Passes NASA Reauthorization Bill
- Hollywood comes to DC: Michael Crichton testifies about climate change in the Senate
- Dover ID Trial Moves Forward
- New in BioScience: "Streamlining the Federal Water Research Portfolio"
- From the Federal Register

The AIBS Public Policy Report is distributed broadly by email every two weeks to AIBS membership leaders and contacts, including the President, President-Elect, Secretary, Treasurer, Executive Director, AIBS Council Representative, Journal Editor, Newsletter Editor, Public Policy Committee Chair, Public Policy Representative, and Education Committee Chair of all AIBS member societies and organizations (see the ONLINE MEMBER DIRECTORIES section of www.aibs.org for contact information).

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CONGRESS APPROVES FIRST CONTINUING RESOLUTION TO FUND FEDERAL GOVERNMENT

All optimistic hopes for completing the FY 2006 Budget before the 1 October deadline ended September 30, with the passage of the year's first continuing resolution. With only two appropriations bills completed (Interior and Environment, and Legislative Branch) Congress needs additional time to get through the rest of the FY 2006 spending bills. H.J.Res. 68 continues funding through November 18th for programs in the regular FY 2006 appropriations bills that have not yet been signed into law. Importantly, the continuing

resolution funds agencies and activities at the lowest of three designated spending levels: the current rate (FY 2005), the House FY 2006 level, or the Senate FY 2006 mark. Importantly, the continuing resolution limits the ability of federal agencies to award new grants until a final appropriation bill is adopted. With the passage of the continuing resolution, the possibility of an omnibus spending bill at the end of this year becomes increasingly likely.

AGRICULTURE AND DEFENSE APPROPRIATIONS UPDATE

With time quickly winding down for Congress to complete the FY 2006 spending bills, the Senate successfully cleared H.R. 2744, the \$100.7 billion Agriculture appropriations bill on 22 September. Within the Senate's recommended funding level, the National Research Initiative would receive \$190 million, \$11 million more than the FY 2005 appropriation but roughly \$60 million below the administration's budget request for FY 06. The Senate joined the House in rejecting the President's request to dramatically cut funding for the Natural Resources Conservation Service, instead providing \$820 million for the program that funds soil surveys, plant materials centers, and conservation technical assistance. In addition, the Senate numbers include \$598,000 for the Office of the Under Secretary for Research, Education, Economics that funds the Agriculture Research Service and the Cooperative State Research, Education, and Extension Service. The bill now heads to a House-Senate conference committee.

In other appropriations news, on 7 October the Senate cleared H.R. 2863, making appropriations for the Department of Defense. During debate on the \$445.5 billion spending package, basic research received a boost in funding with an amendment sponsored by Senators Edward Kennedy (D-MA) and Susan Collins (R-ME). The Kennedy-Collins amendment provided an additional \$40 million for Defense basic research, including \$30 million for the Navy, Army, and Air Force research programs. Language was also included that expressed the sense of Senate that it should be "a goal of the Department of Defense to allocate to basic research programs each fiscal year an amount equal to 15 percent of the funds available...for science and technology."

AIBS AND BSCS RELEASE EVOLUTION BOOK AND VIDEO

The Biological Sciences Curriculum Study is now taking orders for the BSCS/AIBS video, *Evolution-Why Bother?*, and for the BSCS/AIBS book, *Evolutionary Science and Society: Educating a New Generation*, which is based on the symposium of the same name that AIBS and BSCS held at the 2004 annual convention of the National Association of Biology Teachers (Chicago, November 2004).

Evolutionary Science and Society: Educating a New Generation presents the proceedings of the symposium, which featured 17 speakers and five panel sessions.

To complement the proceedings of the symposium, BSCS has developed an activity book for teachers. This book, which includes materials for both teachers and students, is a collection of classic BSCS activities on evolution and is organized around the five themes of the symposium. The materials make reference to the resources available in the proceedings book as they relate to each activity. A CD of the proceedings is included with this book.

The video, *Evolution-Why Bother?*, contains interviews with scientists and teachers to enhance students', teachers', and the general public's understanding of the relevance of evolution to daily life. An understanding of the Tree of Life and methods of phylogenetic analysis, for example, contributes to improving human health, from identifying emerging diseases and the origins of pathogens to understanding the geographic history of diseases and their vectors. The video is available in both DVD and VHS format and is produced in collaboration with Why Bother Films (Boulder, CO).

See the BSCS website (http://www.bsos.org/page.asp?pageid=0|31|53|363&id=0|evolution_programs) for ordering information.

SENATE COMMITTEE APPROVES USFWS, EPA NOMINEES

The Senate Environment and Public Works Committee has approved the confirmation of five nominees including two for the U.S. Fish and Wildlife Service (USFWS) and Environmental Protection Agency (EPA) in a single, en bloc vote. Both nominees must now be approved by the whole Senate to be officially confirmed. During the hearing on October 6, H. Dale Hall was approved as Director of the USFWS. Hall has been criticized by Democrats and environmental organizations concerned with his track record on endangered species. In a September 15th letter to Chairman James M. Inhofe (R-OK), ranking member James Jeffords (I-VT) and three environmental groups asked Congress to reject Hall's nomination. For details on Hall, please see the September 26, 2005 AIBS Public Policy Report at http://www.aibs.org/public-policy-reports/public-policy-reports-2005_09_26.html.

At the same hearing, George M. Gray, Ph.D. was approved as the Assistant Administrator for the Office of Research and Development at the EPA. Dr. Gray currently serves as Executive Director of the Center for Risk Analysis and as a faculty member at the Harvard University School of Public Health. His past research has included work on food safety and environmental chemicals. During the hearing, Senator Barbara Boxer (D-CA) vocally disapproved of Gray's nomination because of his view on pesticides. Once confirmed, Dr. Gray will replace the Acting Assistant Administrator E. Timothy Oppelt.

HOUSE GOVERNMENT REFORM COMMITTEE RECOGNIZES THE YEAR OF THE MUSEUM

The House Government Reform Committee has unanimously passed H. Res. 389, supporting the goals and ideals of the Year of the Museum. Introduced by Representative Louise Slaughter (D-NY), H. Res. 389 does not have the force of law but expresses the House's sentiment that "museums are institutions of public service and education that foster exploration, study, observation, critical thinking, contemplation and dialogue to advance a greater public knowledge, understanding, and appreciation of history, science, the arts, and the natural world."

No date has been set for floor debate on H. Res. 389.

HOUSE PASSES MAJOR CHANGES TO ENDANGERED SPECIES ACT

On September 19th, House Resources Committee Chairman Rep. Richard Pombo (R-CA) introduced the Threatened and Endangered Species Recovery Act (TESRA) of 2005 (HR 3824). Pombo pushed TESRA through the House Resources Committee in less than a week. Republicans and Democrats raised concern over this 'rocket docket,' with House Science Committee Chairman Rep. Boehlert (R-NY) issuing a letter signed by 23 Republican members of the House calling for the process to be slowed so that more thoughtful consideration could be made on the important proposed legislation. The letter went unheeded and TESRA was debated on the House floor on September 29th. A bipartisan group led by Reps. Miller (D-CA) and Boehlert introduced a substitute amendment, which would have included the creation of an independent scientific advisory board, but it was narrowly defeated (206-216). The final version of The Threatened and Endangered Species Act of 2005 passed in the House (229-193), a margin smaller than originally anticipated by Pombo.

The key changes to the ESA that would be made by TESRA involve the removal of mandatory critical habitat designation, restrictions on scientific input, reduction in protection for "threatened" species, and payments to landowners for lost revenue of potential development.

Specific changes with regard to the use of science include:

Narrowing the definition and application of "best scientific data available", especially how scientific models are incorporated and how peer-review is to be utilized.

Providing the appointed Secretary of the Interior with the power to define "best available science" on a case-by-case basis.

Moving the science used to define habitat necessary for protection of the species of interest from a key role in the legally binding critical habitat designation to one element of a non-binding recovery plan.

Changing the definition of "distinct population" that would allow the secretary to use distinct population "only sparingly" when justifying listing any species as endangered.

In the Senate, Sens. Crapo (R-ID) and Lincoln (D-AR) are taking steps to design legislation aimed to improve ESA's incentives through their positions as the chairman and ranking member of the Agriculture Conservation Subcommittee. The Subcommittee has oversight over farm bill programs that pay farmers who make environmental improvements or enhance wildlife habitat on their land. The farm bill has a much bigger coffer than ESA, with billions of dollars for conservation payments alone. Many of the farm bill programs are meant to support wildlife habitat, but none are targeted specifically for listed species. Sen. Crapo has said he hopes to introduce a bill as soon as possible, perhaps within the next month, and that he and Sen. Lincoln are considering many similar changes to those included in the House bill (HR3824).

Any proposal in the Senate would most likely have to go through Sen. Lincoln Chafee's (R-R.I.) Wildlife Subcommittee. Chafee is still holding hearings on the matter before he works to draft any legislation. Chafee has already begun the process of inviting different stakeholders to a summit that will convene in Keystone, Colo., in late October, where they

will try to find consensus on the contentious critical habitat issue. New legislation on this issue isn't expected from Chafee until sometime next year.

SENATE PASSES NASA REAUTHORIZATION BILL

The Senate has passed S. 1281, the National Aeronautics and Space Administration (NASA) Authorization Act, by unanimous consent. The passage of S. 1281, sponsored by Senator Kay Bailey Hutchison (R-TX), comes over two months after the House acted on similar legislation.

S. 1281 authorizes an increase in the NASA budget over the next five years following this trend: \$16.56 billion for FY 2006, \$17.05 billion for FY 2007, \$17.47 billion for FY 2008, \$18 billion for 2009, and \$18.53 billion for FY 2010. These numbers are substantially lower than the \$16.97 billion for FY 2006 and \$17.73 billion for FY 2007 authorized in the House version. The bill will now go to conference to work out the differences between the House and Senate versions.

For more information on the House version, please visit http://www.aibs.org/public-policy-reports/public-policy-reports-2005_07_18.html.

HOLLYWOOD COMES TO DC: MICHAEL CRICHTON TESTIFIES ABOUT CLIMATE CHANGE IN THE SENATE

In September the Senate Environment and Public Works Committee held a hearing entitled "Science in Environmental Policy Making." The packed, contentious hearing featured testimony from lead witness, Michael Crichton, author of 13 fiction novels including his latest "State of Fear" which casts doubt on the scientific evidence for global warming. While DDT and the Montreal Protocol were discussed during the hearing, climate change quickly became the central topic of a heated debate over the legitimacy and accuracy of climate science.

Crichton was joined on the panel by four additional witnesses. Ambassador Richard Benedick, President of the National Center for Science and Environment, who discussed the 1987 Montreal Protocol, Dr. William Gray, a hurricane modeler from Colorado State University, Dr. Donald Roberts of the Uniformed Services University of the Health Services, who studied the use of DDT to fight malaria, and David Sandalow of the Brookings Institute.

Throughout the hearing, Crichton attracted most of the Senator's initial attention, including that of Chairman James M. Inhofe (R-OK). Inhofe, who has described global warming as the "greatest hoax ever perpetrated on the American people," praised Crichton's past work and said he had tried to make it "required reading for [the] committee." Democrats on the committee were not as thrilled with Crichton's credentials. Senator Hillary Rodham Clinton (D-NY) pointed out that his views were "at odds with the vast majority of climate scientists" and "State of Fear" is a "work of fiction even if it has footnotes."

During their testimony, Crichton and Gray expressed doubts about the legitimacy of climate science calling for verification of past studies and more rigorous scrutiny in the future. Gray stood and passionately testified that climate scientists "don't know much" and "have the basic physics wrong." After listening to his testimony, Senator Barbara Boxer (D-CA)

aggressively questioned Dr. Gray's background in climate science by asking how many peer reviewed journal articles he had published on the subject. Gray admitted that he has not had any climate change articles accepted because there "is also a slight bias about accepting papers that criticize" climate change.

In contrast to Crichton and Gray, Benedick and Sandalow both provided the Senators with evidence of climate change and suggested that "nature does not always provide policy-makers with convenient early warning signals of impending disaster." After Dr. Gray's emphatic testimony, Sandalow replied, "Dr. Gray says he disagrees with [climate change science] and that he's been simmering on this topic for 20 years. I would respectfully recommend that Dr. Gray simmer his way right into the peer-reviewed scientific literature on this topic."

DOVER ID TRIAL MOVES FORWARD

In Harrisburg, Pennsylvania the Kitzmiller v. Dover case completed its second week of the closely watched Intelligent Design trial. The Plaintiff's Counsel, the American Civil Liberties Union of Pennsylvania and the Americans United for Separation of Church and State, have presented a number of witnesses who have studied Intelligent Design and concluded that it is a religious movement based originally on Creationism. The Defense has not yet called a witness to the stand, but has been aggressively cross examining the Plaintiff's witnesses. The trial resumes Tuesday, October 11 after the holiday weekend.

For more information on the Dover case please see the AIBS Public Policy Report from 26 September, http://www.aibs.org/public-policy-reports/public-policy-reports-2005_09_26.html.

NEW IN BIOSCIENCE: "Streamlining the Federal Water Research Portfolio

The October 2005 Washington Watch column in BioScience considers recent federal actions that could improve funding for freshwater research. An excerpt from the article follows.

In the United States, vicious battles over water were once viewed as the sole domain of the American Southwest. But today, conflicts over water are brewing all over the country. In 2002, the New York Times reported on water conflicts in 29 different states. Even as more states are faced with water problems, those with a history of water problems are facing new challenges: according to the Public Policy Institute of California, California's demand for water could increase by as much as 40 percent by 2030.

As the geography of water conflicts expands, the complexity of the issues grows. Robert Hirsch, associate director for water at the US Geological Survey, notes that water allocation has traditionally been viewed in terms of how much was needed for agricultural, urban, and industrial uses, with little consideration for the needs of aquatic habitats. "Now, due to changes in public values and laws such as the Endangered Species Act, the allocation has to be reconsidered; the biota now have a seat at the negotiating table." As a result, the question water managers are faced with has shifted from "How much can we take?" to "How much do we need to leave?"

The complete article may be viewed at
http://www.aibs.org/washington-watch/washington_watch_2005_10.html.

FROM THE FEDERAL REGISTER

The following items appeared in the Federal Registrar during the week of 26 September - 7 October 2005. For more information on these or other recent items, please go to <http://www.aibs.org/federal-register-resource/index.html>.

AGRICULTURE

-Notice of the National Agricultural Research, Extension, Education, and Economics Advisory Board Meeting

DEFENSE

-Strategic Environmental Research and Development Program, Scientific Advisory Board: Notice.

EDUCATION

-A National Dialogue: The Secretary of Education's Commission on the Future of Higher Education; Notice of Establishment
-A National Dialogue: The Secretary of Education's Commission on the Future of Higher Education; Notice of meeting.

ENVIRONMENTAL PROTECTION AGENCY

-Science Advisory Board Staff Office; Notification of an Upcoming Meeting of the Science Advisory Board Committee on Valuing the Protection of Ecological Systems and Services (C-VPESS)

-Toxics Release Inventory 2006 Burden Reduction; Notice.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

-Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Contractor Re-Certification of Program Compliance; Proposed rule.

NATIONAL SCIENCE FOUNDATION

-Committee on Equal Opportunities in Science and Engineering; Notice of Meeting
-Advisory Committee for Education and Human Resources; Notice of Meeting
-Proposal Review Panel in Earth Sciences; Notice of Meeting

- Give your society or organization a voice in public policy decisions affecting your areas of science. Support the AIBS Public Policy Office's ability to work with you, on your behalf. See http://www.aibs.org/public-policy/funding_contributors.html. Not an AIBS member yet? Go to <http://www.aibs.org/organization-membership> or <http://www.aibs.org/individual-membership>

- Plan to attend: The 2006 AIBS annual meeting has been scheduled for 23 to 24 May 2006 in Washington DC. The working title is "Biodiversity: The Interplay of Science, Valuation and Policy." Plenary speakers, breakout sessions, and a poster session are planned.

Please follow this webpage, <http://www.aibs.org/annual-meeting/>, for updates and registration, when open. The annual meeting will be preceded, 22 to 23 May, by an AIBS business meeting for the general membership, combined with a meeting of the AIBS Council of member societies and organizations.

- Now Online: Report on 2005 AIBS Council meeting and open-access publishing meeting http://www.aibs.org/announcements/050519_now_online_report_on.html

- NEON updates, <http://www.neoninc.org>; NESCent updates, <http://www.nescent.org>

- Check for opportunities to comment on federal agency actions affecting the biological sciences at the AIBS Federal Register Resource, <http://www.aibs.org/federal-register-resource/index.html>

Cornell President Speaks Out on Creationism and Intelligent Design

Cornell University State of the University Address

By Hunter R. Rawlings III, Interim President, October 21, 2005

<http://www.cornell.edu/president/>

Thank you, Jay. Elizabeth and I are pleased to be back in our previous roles while Cornell searches for its next president. I share Pete Meinig's enthusiasm for Cornell's priorities, and I can attest to the momentum with which the university is moving forward to realize them. I am grateful for the role that the Cornell University Council has played under the leadership of Ginger So for the past two years and now plays under your guiding hand. I have every confidence that the search committee will identify a first-rate person to lead Cornell as our next president, and I look forward to rejoining the faculty full time, once he or she has assumed the office.

This morning, though, I want to address a matter of great significance to Cornell and to the country as a whole, a matter with fundamental educational, intellectual, and political implications. This matter has become so urgent that I feel it imperative to make it the central subject of my State of the University Address on Trustee-Council Weekend.

The issue in question is the challenge to science posed by religiously-based opposition to evolution, described, in its current form, as "intelligent design." This controversy raises profound questions about the nature of public discourse and what we teach in universities, and it has a profound effect on public policy.

Right now, this issue is playing out in school districts, cities, counties and states across the country. In August, the Association of Christian Schools International and the Calvary Chapel Christian School in Murrieta, CA, brought suit against the University of California system for rejecting three of the Calvary Chapel School's courses, including a creationist-oriented biology course, as inadequate preparation for college. The plaintiffs charge that by rejecting the courses, the University of California infringes on their rights "to freedom of speech, freedom from viewpoint discrimination, freedom of religion and association, freedom from arbitrary discretion, equal protection of the laws, and freedom from hostility toward religion." 1

Kansas, which was at the heart of the anti-evolution movement a few years ago, is again considering new science standards that would urge public school teachers to present alternatives to evolution. Here in New York State, a member of the State Assembly introduced a bill last May that would require that "all pupils in grades kindergarten through twelve in all public schools in the state...receive instruction in both theories of intelligent design and evolution." 2 The bill was referred to the Committee on Education.

As we meet today, a federal court in Pennsylvania is hearing the case of *Kitzmiller v. Dover*, in which a group of parents is challenging the October 2004 decision of their local school board to teach "intelligent design" along with evolution in biology classes. The parents contend that "intelligent design" is essentially a religious concept and as such violates the separation of church and state.

Disputes involving evolution are brewing in at least 20 states and numerous school districts. And in August, President Bush weighed in by suggesting that schools should teach intelligent design along with evolution.

"I think that part of education is to expose people to different schools of thought," the president told reporters. "You're asking me whether or not people ought to be exposed to different ideas. The answer is yes." 3

Most of us have some familiarity with "creationism," which asserts that life as we know it was created more or less in its present form about 10,000 years ago. Intelligent design is a more subtle construct. While not necessarily denying that some forms of life have evolved over time, it contends that some features of the natural world (the flagella of bacteria is one often cited example) are so "irreducibly complex" that they require an intelligent designer.

The Seattle-based Discovery Institute, which has been leading the intelligent design movement, defines it this way: "The scientific theory of intelligent design holds that certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection. Note: Intelligent design theory does NOT claim that science can determine the identity of the intelligent cause. Nor does it claim that the intelligent cause must be a 'divine being' or a 'higher power' or an 'all-powerful force.' All it proposes is that science can identify whether certain features of the natural world are the products of intelligence." 4

Evolutionary theory states that genetic mutations and natural selection, over millions of years, gave rise to human beings and all other forms of life. Evolutionary theory says nothing about the existence or the non-existence of god. As our own President Emeritus Frank Rhodes, a distinguished scholar of Charles Darwin and the history of evolutionary theory, has written, "...[T]he truth is that evolution is neither anti-theistic nor theistic. So far as religion is concerned, evolution is neutral. It does suggest that species arise by natural selection which proceeds by natural laws, but, like all scientific theories, it provides no ultimate interpretation of the origin of the natural laws themselves; for it no more proves them to be the result of random chance, than it proves them to be the servant and expression of purpose." 5

Many Americans, including some supporters of evolution, believe that intelligent design should be taught along with evolution. "Teach the controversy" has become the rallying cry of the Discovery Institute and others in the "I.D." camp, and it is the view apparently endorsed by President Bush. In fact, according to a recent report by the Pew Research

Center in Washington, D.C., which analyzed 20 years of trend data on public attitudes toward evolution, a large minority of Americans -- around 40 percent -- says that creationism should be taught instead of evolution in public schools. 6

Even here at Cornell, there are sharp divisions on the issue. Each year in his large course on evolution for non-majors, Will Provine, the C. A. Alexander Professor in Ecology and Evolutionary Biology, asks his students a set of questions about evolution. The exact percentages vary a bit from year to year, but typically about half the students come out in favor of some sort of "purpose" informing the process through which life develops and half come out on the side of mechanistic evolution.

Of course, this is not the first time the country has experienced serious disagreement about evolution. In 1860, a year after Darwin published *On the Origin of Species by Means of Natural Selection*, many Americans eagerly followed accounts of the Wilberforce-Huxley debate before the British Association for the Advancement of Science.

The controversy came up again 80 years ago in Tennessee, pitting William Jennings Bryan against Clarence Darrow to decide the fate of John Scopes, a high school biology teacher accused of violating the state's law against teaching evolution. In his opening statement, Bryan claimed that "if evolution wins, Christianity goes" while Darrow argued, "Scopes isn't on trial; civilization is on trial." Although the decision in the case achieved less than Darrow had hoped, it provided a significant deterrent to anti-evolution legislation that in 1925 was pending in 15 other states. 7

It arose a third time in 1987 when the Supreme Court ruled, in *Edwards v. Aguillard*, that Louisiana's "Creationism Act" was invalid. That act forbade the teaching of evolution in public elementary and secondary schools unless accompanied by instruction in "creation science," and the Supreme Court found that the Louisiana act "lacks a clear secular purpose." 8

Now, with the well-organized, resolute intelligent design movement, the issue is back again. What adds urgency to this iteration of the dispute is the fact that this country is so polarized, both culturally and politically. When we divide ourselves into "Red States" and "Blue States"; into the people who watch Fox News and those who watch PBS; into "people of faith" and "secular humanists," when ciphers substitute for nuanced ideas, is it any wonder that this debate now concerns matters as fundamental as what we teach in our primary and secondary schools, what academic standards universities require, and what rhetoric candidates adopt in political races? When ideological division replaces informed exchange, dogma is the result and education suffers.

And if we are honest, we have to admit that many of us in universities have contributed to the polarization that afflicts the country as a whole. President Emeritus Frank Rhodes, writing in 1982 at the height of the "creationism" debates, noted that "both fundamentalist advocates and some popular scientists claim an extension of their area of authority which is logically illegitimate. The fundamentalists offer an old doctrine of scriptural infallibility, improperly disguised as science; the scientists offer an old doctrine of materialism, equally improperly disguised as science.... Each, in its increasingly intemperate pronouncements, is guilty of intellectual imperialism." 9

Today, as Glenn Altschuler, Cornell's Litwin Professor of American Studies, has noted, we continue to have scientific imperialists who believe that only science can be looked to for

answers to all answerable questions and that those areas where science cannot provide answers are unimportant. And we have religious imperialists who assert that all questions are appropriately directed to faith-based sources for answers.

I want to suggest that universities like Cornell can make a valuable contribution to the nation's cultural and intellectual discourse. With a breadth of expertise that embraces the humanities and the social sciences as well as science and technology, we need to be engaging issues like evolution and intelligent design both internally, in the classroom, in the residential houses, and in campus-wide debates, and also externally by making our voices heard in the spheres of public policy and politics.

At the time of its founding in 1865 – six years after Darwin published *On the Origin of Species* – Cornell responded to the first assault on science and reason in a direct and forceful way. In creating what has been called the first American university, Ezra Cornell and Andrew Dickson White insisted that it break new intellectual ground. Looking back some years later, White wrote, "We had especially determined that the institution should be under the control of no political party and of no single religious sect, and with Mr. Cornell's approval, I embodied stringent provisions to this effect in the charter." 10

White made the defense of science, including evolution, the center of his scholarly attention during and after his presidency. It figured prominently in the history courses he managed to teach at Cornell while president. It figured in the lectures he was invited to give, as a leading college president, around the country. And it formed the basis of his magnum opus, a two-volume work entitled *A History of the Warfare of Science with Theology in Christendom*.

As Glenn Altschuler wrote in his biography of A. D. White, in *The Warfare of Science*, White sought to provide his readers with a clear distinction between theology and science. The essential difference was methodological.

As a rule, White wrote, the conclusions of a great theologian ripen into dogma. "His disciples labor not to test it, but to establish it; and while, in the Catholic Church, it becomes a dogma to be believed or disbelieved under the penalty of damnation, it becomes in the Protestant Church the basis for one more sect."

In contrast, as Professor Altschuler noted, "White championed unlimited free inquiry; it was as crucial to the ultimate survival of religion as it was to progress in science." 11 Religion did more damage to itself than to science, White observed, when it insisted on adherence to discredited ideas. What we now call "creationism," in his view, was no more essential to faith than a belief that the earth was at the center of the universe.

Ezra Cornell also found the issue of religion central to his concern for his new university. A few years ago, when we were rebuilding Sage Hall, I had the privilege of reading a letter that he had placed in the building's original cornerstone on May 15, 1873.

In it, Cornell warned "that the principal danger, and I say almost the only danger I see in the future to be encountered by the friends of education, and by all lovers of true liberty is that which may arise from sectarian strife. From these halls, sectarianism must be forever excluded, all students must be left free to worship God, as their conscience shall dictate, and all persons of any creed or all creeds must find free and easy access, and a hearty and equal welcome, to the educational facilities possessed by the Cornell University...."

In keeping with the convictions of A. D. White and Ezra Cornell, Cornell has remained a non-sectarian university that actively supports students in the practice of their religious faiths. Cornell United Religious Work (CURW), established in 1929, was created in order to give Cornell students an array of religious options. CURW now hosts 26 affiliate groups, including Jews, Roman Catholics, Unitarians, Christian Scientists, the Society of Friends, the Church of Jesus Christ of Latter-Day Saints, the Muslim Educational and Cultural Association, a number of Christian evangelical organizations, an African-American worship service, Muslim, Hindu, Zen and Tibetan Buddhist, Hasidic Orthodox Jewish and Pagan groups. Anabel Taylor Hall provides a physical home to a wide range of student organizations and programs that are religiously-based. Even our dining options have been designed to encourage religious observance.

Religion has also figured prominently in Cornell's academic program. As early as 1896, Henry W. Sage agreed to fund a chair of Semitic Languages and Literature, and its first holder, Nathaniel Schmidt, taught courses in Hebrew, Aramaic, and Arabic languages, in the Old Testament Literature, and in oriental history. Today the study of world religions is alive and well at Cornell. There is a religious studies program with an undergraduate major. Its faculty is drawn from several departments including Near Eastern Studies, Asian Studies, History, English, Anthropology, Philosophy, Classics and others. I believe that this is a very good thing.

So if religious beliefs of all sorts are welcomed, encouraged and supported at Cornell and if religious studies has a secure place within the curriculum, should creationism or intelligent design be taught in science courses? A substantial fraction of the American people and of our own students accept creationism or intelligent design, so what is the harm?

The answer is that intelligent design is not valid as science, that is, it has no ability to develop new knowledge through hypothesis testing, modification of the original theory based on experimental results, and renewed testing through more refined experiments that yield still more refinements and insights.

H. Allen Orr, writing in *The New Yorker* last spring, noted: "Though people often picture science as a collection of clever theories, scientists are generally staunch pragmatists: to scientists, a good theory is one that inspires new experiments and provides unexpected insights into familiar phenomena. By this standard, Darwinism is one of the best theories in the history of science. It has produced countless important experiments ... and sudden insight into once puzzling patterns...."

Orr notes that in the 10 years since one of the I.D. movement's chief theorists, biochemist Michael Behe (pronounced Bee-Hee), offered arguments about the irreducible complexity of cells as evidence for "intelligent design," "I.D. has inspired no nontrivial experiments and has provided no surprising insights into biology." And he adds, "As the years pass, intelligent design looks less and less like the science it claimed to be and more and more like an extended exercise in polemics....Biologists aren't alarmed by intelligent design's arrival in Dover [PA] and elsewhere because they have all sworn allegiance to atheistic materialism; they're alarmed because intelligent design is junk science." 12

We should not suspend, or rather annul, the rules of science in order to allow any idea into American education. I.D. is a subjective concept. It is, at its core, a religious belief. What about including I.D. in public policy discourse? After all, it is an important view of the world shared by many Americans. Many religiously-based views enter the public arena and

inform our policy debates, and they should. Religiously-derived arguments, in my view, must bear two burdens: they must be clearly identified as such, that is, as propositions of faith; and, in acknowledging that others do not share these propositions of faith, they must be supported by other arguments.

When religion moves beyond the private realm and into the public square, it must do so with great care; otherwise, it creates serious potential dangers to the civic polity and to religion itself. That is why James Madison, the author of the First Amendment, was at such pains throughout his long public life to separate church and state. In 1785, when his fellow Virginian Patrick Henry proposed that a small tax be imposed to support the churches of the Commonwealth for the avowed secular purpose of improving the general morals of society, Madison responded with his "Memorial and Remonstrance Against Religious Assessments," the single most influential document in American history on the subject of the separation of church and state.

Madison maintained (in article #1) that "we hold it for a fundamental and undeniable truth, that religion or the duty which we owe to our Creator and the manner of discharging it, can be directed only by reason and conviction, not by force or violence." He allowed (in article #8) that "Rulers who wished to subvert the public liberty, may have found an established Clergy convenient auxiliaries." But he stressed, "A just Government instituted to secure & perpetuate it...will be best supported by protecting every Citizen in the enjoyment of his Religion with the same equal hand which protects his person and his property; by neither invading the equal rights of any Sect, nor suffering any Sect to invade those of another." And he declared that (in article #5) "... the Bill implies either that the Civil Magistrate is a competent Judge of Religious Truth; or that he may employ Religion as an engine of Civil policy. The first is an arrogant pretension falsified by the contradictory opinions of Rulers in all ages, and throughout the world; the second an unhallowed perversion of the means of salvation."

In essence, Madison argued that government must be extremely cautious in employing religion as an instrument of civil policy. I.D. is a religious belief masquerading as a secular idea. It is neither clearly identified as a proposition of faith nor supported by other rationally-based arguments. As we have seen all too often in human history, and as we see in many countries today, religion can be a source of persecution and repression. As Pascal, the great French philosopher, said, "Men never do evil so completely and cheerfully as when they do it from religious conviction." 13

The United States, it is worth noting, where church and state are most rigorously separated, is also the country where churches, synagogues, mosques, and other houses of worship flourish, where a healthy pluralism predominates, and where everyone is free to worship as he or she chooses.

I am convinced that the political movement seeking to inject religion into state policy and our schools is serious enough to require our collective time and attention. Cornell's history, its intellectual scope, and its current commitments position us well to contribute to the national debate on religion and science.

As you know, Cornell is in the midst of a major investment in the new life sciences, the physical sciences, and computing and information sciences, and also in issues surrounding sustainability. These priorities have come out of a sustained academic planning process with strong involvement of the faculty and academic deans. Along with a focus on student

aid and diversity, faculty recruitment and retention, they will figure prominently in the capital campaign, which in its quiet phase is already moving forward with great momentum. Yet I want to suggest that ultimately our efforts to position Cornell as the leading academic citizen of an interconnected world will fall short of their potential if we neglect the background conditions that have put rational thought under attack.

We have at Cornell great intellectual resources to deal with the current attacks on science and reason. We also have a strong tradition of faculty members using their expertise to comment on public policy, as the late Hans Bethe did as an advocate for nuclear non-proliferation, and as Kurt Gottfried is still doing as the co-founder of the Union of Concerned Scientists.

I believe that now, as we proceed with our investments in scientific inquiry, we should also be addressing the cultural issues that the invasion of science by intelligent design embodies. This is an issue that should engage not simply our science faculty, like Will Provine, but, in particular, our social scientists and humanists.

This is above all a cultural issue, not a scientific one. The controversy is about the tensions between science and belief, reason and faith, public policy and private religiosity.

Modern research universities have become segmented. We have scientists over here, humanists and social scientists over there. Knowledge is divided into ever-smaller categories; our specialization becomes ever more narrow.

I believe it is time to put the disparate parts of the modern research university back together. We have at Cornell philosophers expert at making fine distinctions and careful definitions. We have scholars of literature who have made the close reading of texts their life's work. We have historians and scholars of American Studies who can identify and explicate the antecedents of the current controversy. We have economists, sociologists, political scientists and others adept at exploring linkages among science, religion and public policy and their relationship to broad societal themes like privilege, poverty, and inequality.

For almost 40 years, the Cornell Society for the Humanities has supported research and encouraged imaginative teaching in the humanities, in part, by focusing each year on a single theme. For the 2005-06 academic year, it is "Culture and Conflict," a theme that relates quite directly to the issues I have been talking about. And our new Institute for the Social Sciences, partly modeled on the Society for the Humanities and partly on the social science and humanities seminars that Provost Martin helped launch a few years ago, brings together each year about a dozen faculty members from across the university to work collaboratively on a cutting-edge topic that will stimulate new courses and productive discussions on campus, and important scholarship.

Social scientists should be asking questions such as: "How, if at all, might I.D. influence the public policy debate in the United States, given our strict separation of church and state?" "What would constitute evidence of a conscious or intelligent designer of the universe?" Humanists should be asking questions such as: "Are reason and faith polar opposites?" "Are they inevitably antagonistic to one another?" "How have the aesthetic roots of religious belief and the exploration of the spiritual shaped literature, music, art, and culture?" "How might we frame conversations to talk about when human life begins amidst assertions that a definition of human life may be so inherently subjective as to preclude reaching a

consensus?" These are large and important questions. They go to the heart of our American democracy and to the essence of the human experience.

I am pleased that under Provost Martin's leadership, Cornell's strong tradition of interdisciplinary collaboration continues to embrace not only the sciences and technological fields, but also the humanities and the social sciences. Humanists and social scientists, whose expertise lies in understanding cultures and ideas, can – and should -- move us beyond ridiculing or ignoring our opponents or claiming that, at some level, science is good and faith is bad. They can keep us from claiming too much in the sphere of religion or in the sphere of science and give us the language we need to learn from each other.

To that end, I ask our three task forces, on life in the age of the genome, wisdom in the age of digital information, and sustainability, to consider means of confronting the following questions: how to separate information from knowledge and knowledge from ideology; how to understand and address the ethical dilemmas and anxieties that scientific discovery has produced; and how to assess the influence of secular humanism on culture and society.

Consistent with Cornell's land grant mission, I ask as well that humanists, social scientists, and scientists venture outside the campus to help the American public sort through these complex issues. I ask them to help a wide audience understand what kinds of theories, arguments, and conclusions deserve a place in the academy – and why it isn't always a good idea to "teach the controversies." When professors tend only to their own disciplinary gardens, public discourse is undernourished.

Cornell is known the world over as one of the great global research universities. Twenty-eight years ago, with substantial Cornell involvement, the Voyager I spacecraft set out on a journey to Jupiter, Saturn and beyond. Over the years Voyager has confirmed some of our expectations about the solar system and provided data that contravened others. Voyager I is now the most distant human-made object in the universe. It is approaching the very edge of our solar system and is about to venture into the vast unknown of the interstellar medium.

Voyager and its sister craft, Voyager II, traveling along at some distance behind, seem poised to amaze and enlighten us with a new perspective on the universe of which we are a part. They are the results of scientific method and experimentation, but also of imagination and creativity. They inspire in us the emotions we associate with both religion and science: awe, wonder, curiosity, and an intense desire to know more.

The spirit of discovery and innovation, exemplified by the Voyager mission, helped earn Cornell a 12th place ranking in a recent survey of the best universities in the WORLD. Cornell is the place where the science behind the Mars Rovers was, and still is, being done. It is the university that led in the rediscovery of the ivory-billed woodpecker, which had not been reliably reported in the United States for 60 years, and was thought to have become extinct. It is the place where music professors like Steve Stucky win Pulitzer Prizes, and computer scientists like Jon Kleinberg and poets like Alice Fulton win MacArthur Foundation awards.

It is also a place that has nurtured great intellectual leaders who have not only made landmark contributions to their disciplines, but who are willing to speak out, frequently and forcefully, about the obligation of the academy to pursue knowledge and truth unfettered by political or religious dogma. Cornellians who do will be acting in the great tradition of Cornell's founders, Ezra Cornell and Andrew Dickson White.

1. http://www.acsi.org/webfiles/webitems/attachments/007875_2.%20ACSI%20CA%20Complaint.pdf
2. <http://assembly.state.ny.us/leg/?bn=A08036&sh=t>
3. <http://www.washingtonpost.com/wp-dyn/content/article/2005/08/02/AR2005080201686.html>
4. <http://www.discovery.org/scripts/viewDB/index.php?command=view&id=2348>
5. Frank H. T. Rhodes, "Darwin Remembered," unpublished manuscript, March 22, 1982, p. 4.
6. Scott Keeter, "What's Not Evolving Is Public Opinion," Washington Post, Oct. 2, 2005
7. <http://www.law.umkc.edu/faculty/projects/ftrials/scopes/scopes.htm>
8. <http://www.talkorigins.org/faqs/edwards-v-aguillard.html>
9. Frank H. T. Rhodes, "Darwin Remembered," p. 3-4.
10. A. D. White, A History of the Warfare of Science with Religion in Christendom, 1928, p. vi.
11. Glenn Altschuler, A. D. White: Educator, Historian, Diplomat, 1979, p. 205.
12. H. Allen Orr, "Devolution; Annals of Science," The New Yorker, Vol. 81, Iss. 15, p. 40.
13. Blaise Pascal, Pensées, no. 894.

Part IV of our ongoing series on Latin American Parasitology

Written and Transcribed / Translated by Dr. Agustin Jimenez-Ruis

This time we present a statement transmitted by Lidia Sánchez and Dr. Irma Franke Jahncke about the Helminthological Collection of the Museum of Natural History in Lima, Peru. The Museum is affiliated to the Universidad Nacional Mayor de San Marcos (UNMSM), which is among the oldest five universities on the Continent of South America.

The facilities are located in a neighborhood in central Lima, halfway between the University main campus and the ocean.



At left: Library of the UNMSM, claiming to be the oldest in the Americas. In the center wearing black, Elizabeth Morales.

I visited the collection in 2002 as a part of my investigations in the systematics of nematodes of neotropical vertebrates. During my visit to Peru I performed field work and visited the collection; the personnel in the collection were very helpful in obtaining the permits and supplies necessary to complete my investigations. While working in the collection I also enjoyed discussing distributions of parasites in mammals and current topics of parasitology in the country. During that expedition I also received a lot of help from Florian Reyda, whose property I visited in Cuzco Amazónico.

The Museum is in an old building that is under sporadic renovation, since we all know that resources are not that plentiful when it comes to support museums. Yet the will and drive of biologists keep the museum afloat, earnestly preserving the treasures of nature. The Collection is relatively small considering the great biological diversity of Peru, yet it is of high significance since it is the most important in the country and it is very well organized. I urge people to deposit materials there!

The last thing I would like to share with the readers deals with the devotion of people for the collections. There are volunteers in many museums and their contributions are not only valuable by the work they perform, they are also valuable because their devotion represents an example and generates motivation for people around them.

During my visit to the Museo I learned that many of the people are students that volunteer to perform certain tasks in the laboratories during their tenure (upon completion of their theses).

Of greater impact is the fact that some people have the capability to run the laboratories and collections, and like Lidia Sánchez Pérez they perform their work as volunteers, with no laboral tie with the University. All the personnel with the exception of Dr. Franke Jahncke work as volunteers.

Here is the text transmitted by Lidia and Dr. Franke Jahncke.

DEPARTAMENTO DE PROTOZOLOGÍA, HELMINTOLOGÍA E INVERTEBRADOS AFINES.

Museo De Historia Natural De La Universidad Nacional Mayor De San Marcos, Lima - Perú.

Address: Laboratorio de Helminología. Museo de Historia Natural UNMSM, Avenida Arenales 1256, Jesús María. Apartado 14-0434. Lima 14, PERÚ.

The Department was funded by Luz Sarmiento Bendezú in 1962 as a division of the Museo de Historia Natural of the UNMSM. The original name was Departamento de Helminología and as soon as it began to operate Dr. Sarmiento started the helminthological collection. She accessed specimens collected and prepared from both the courses of Systematic Zoology taught in the School of Biological Sciences and expeditions to survey the helminth fauna of vertebrates of Peru. Dr. Sarmiento retired in 1992 and Elizabeth Morales Grandez took over her position and served as curator until the year 2004.



Left: Dr. Luz Sarmiento Bendezú

Under Morales Grandez' tenure the name of the Department was changed to Protozoología, Helminología e Invertebrados Afines in 1995. Likewise, the Collection was also renamed as Colección Helminológica y de Invertebrados Afines, to include parasites of other taxa not considered helminths and free living organisms with

taxonomic, systematic or historic affinities to groups of invertebrates (protozoans, rotiferans, turbelarians, free living nematodes, nematomorphs, annelids, pentastomes, and crustaceans).



Elizabeth Morales, Dr. Sarmiento, and Ruperto Severino keeping the spirit up.

Nowadays the curator is Dr. Irma Frenke Jahnke (e-mail franke@museum.edu.pe and ifrankej@hotmail.com), and Lidia Sánchez Pérez serves as the Collection Manager.

GOALS OF THE COLLECTION

- ** To preserve, identify, and inventory the parasites and free living invertebrates that are part of the fauna of Peru.
- ** To record the information associated to the specimens preserved in the Collection.
- ** To be a collection of research and reference for both national and foreign researchers.

MISSION STATEMENT

- **To facilitate the interchange of information among all parasitologists working in Peru.
- ** To participate in the diffusion of the activities and research conducted by members of the Department to the public.
- ** To participate in the diffusion of the importance of the study of Biodiversity through the Annual Open House of the Museum, hold the first week of March as part of the celebrations of the Museum Anniversary.

The Collection is subdivided in two sections:

Helminthological Collection

Collection of Invertebrates

The Helminthological Collection is the most important in the country, and it includes parasites of wildlife, domesticated animals, and humans.

It holds 2163 lots including vials with specimens preserved in 70% ethanol and Canada balsam on permanent slides. There are 511 type specimens of Digenea, Monogenea, Cestoda, Nematoda, and Acanthocephala parasites of vertebrates and some invertebrates

collected in Peru, Chile and the United States of America. From the total of type specimens, 34 are holotypes, 9 allotypes, 418 paratypes, and 50 syntypes. A catalog describing those records is in press and will be released soon as part of the publications by the Museo de Historia Natural. The catalog is already entered in an electronic format, and it is continuously updated with new fields that make each accession number richer in information.

Cabinet with specimens preserved in 70% ethanol.

COLLECTION OF INVERTEBRATES

This section was started in the year 2000 and to date it includes 233 lots of protozoans, rotiferans, freeliving turbelarians, nematomorphs, annelids, parasitic crustaceans (copepods, isopods, branchiurans), and pentastomids. The specimens that are part of this collection are also entered in an electronic database.

RESEARCH AND ACTIVITIES OF THE DEPARTMENT

The personnel in the Department has faculty of the UNMSM, graduate and undergraduate students and several volunteers. On top of their research activities all of them donate their time to activities that help to keep the laboratory and the collection operating in an optimal way.

Dr. Irma Frenke Jahnke, UNMSM, Curator
Coordinator of Zoology

Lidia Sánchez Pérez, Biologist, UNMSM, Research Associate
Helminths of Mollusks and Fish

Patricia Salízar Vásquez, Bachelor Sciences, UNMSM
Turbelarians

Christian Rodríguez Lara, Bachelor Sciences, UNFV
Free living Protozoans

Luis Gómez Puerta, Bachelor in Animal Science, UNMSM
Helminths of reptiles and mammals

Doris Floríndez Trujillo, Bachelor Sciences, UNMSM
Helminths of Amphibians

There are five publications available that summarize the knowledge of parasites known to be present in Peru and report some of the holdings in the Collection. All of those checklists were the product of collaboration among personnel in the Department and researchers from several other institutions.

TANTALEÁN, M., L. SARMIENTO & A. HUIZA. 1992. Digeneos (Trematoda) del Perú. **Boletín de Lima 80**: 47 – 84.

SARMIENTO, L., M. TANTALEÁN & A. HUIZA. 1999. Nematodos Parásitos del Hombre y de los Animales en el Perú. **Revista Peruana de Parasitología 14** (1-2): 9 –65.

MORALES, E. L. SARMIENTO, L. SÁNCHEZ, D. FLORÍNDEZ & G. LAMAS. (in press). Material Tipo de Helmintos en el Museo de Historia Natural, Universidad Nacional Mayor de San Marcos. **Publicaciones Museo de Historia Natural UNMSM**

TANTALEÁN, M., L.SÁNCHEZ, L.GÓMEZ & A. HUIZA. 2005. Acantocéfalos del Perú. **Revista Peruana de Biología 12** (1): 83-92. (<http://sisbib.unmsm.edu.pe/BVRevistas/biologia/biologiaNEW.htm>)

TANTALEÁN M., L. SÁNCHEZ, C. RODRÍGUEZ. (in preparation) Cestodes del Perú

INSTITUTIONAL RELATIONSHIPS

The curators and Collection Manager of the Department have kept close contact with other collections of parasites and invertebrates in the world. As a result of that communication there is interchange of information, specimens and advice with the work in progress to maintain the collection up to date.

- US National Parasite Collection & Animal Parasitic Disease Laboratory. Beltsville, Maryland, USA.
- Harold W. Manter Laboratory of Parasitology. Lincoln, Nebraska, USA.
- Departamento de Parasitología Animal. Universidade Federal Rural do Rio de Janeiro. Seropédica, Rio de Janeiro, Brasil.
- Instituto de Pesquisas de Planarias. UNISINOS, Brasil.
- Laboratorio de Helmintología Instituto Oswaldo Cruz. Brasil

- Colección Helmintológica, Universidad Autónoma de México.
- Colección Helmintológica del Museo de Historia Natural de la Universidad Nacional de la Plata, Argentina.
- Laboratoire de Biologie Parasitaire, Protistologie, Helminthologie, MNHN, Museo de Historia Natural, Paris.

EXTENSION

The personnel welcome undergrad and graduate students to check the specimens of the collections and materials from our library, which includes donations from contributors of the University of Nebraska.

We also participate in the identification of invertebrates and parasites for private enterprises.

POSITIONS OPEN FOR TWO PhD STUDENTS

As part of a recently-funded NSF-PEET (Partnerships for Enhancing Expertise in Taxonomy) project the Department of Coastal Sciences of The University of Southern Mississippi's Gulf Coast Research Laboratory in Ocean Springs, MS, is currently seeking applications for two qualified students seeking a Ph.D. with a strong interest in parasite taxonomy. The project comprises a taxonomic revision of the Haploporidae (Platyhelminthes: Digenea), a family comprised of species that infect the gut of herbivorous fishes worldwide. The selected Ph.D. applicants each will be expected to 1) monograph one of the four haploporid subfamilies (either Haploporinae or Waretrematinae), 2) conduct land- or ship-based field collections abroad and domestically for up to several weeks at a time, 3) disseminate results by a) publishing in primary literature, b) presenting at scientific meetings, and c) contributing to the development and maintenance of the website and database, 4) participate in the curation of the Overstreet Parasitological Collection, and 5) mentor undergraduate and high school students in parasitology. A Research Assistant's (RA) stipend of \$18,000/yr plus tuition waiver is available for four years beginning January, May, or August 2006. Send curriculum vitae and names of references to: R. M. Overstreet, Ph.D., Gulf Coast Research Laboratory, P.O. Box 7000, Ocean Springs, MS, 39566. AA/EOE/ADA

Position - North Dakota --

The Department of Earth System Science and Policy and the Northern Great Plains Center for People and the Environment at the University of North Dakota invite applications for multiple faculty openings. Successful candidates will be expected to work across disciplinary boundaries in a collegial environment. The NGP CP&E is a Center of Excellence at the University of North Dakota, the degree-granting component of which is the ESSP program. The Center's vision is to provide benefits to society leading to a prosperous and sustainable future. See <http://www.umac.org>. Faculty Position(s) in Earth System Policy: The general area of expertise sought is the Nature-Human interface. Successful candidates will help unify social aspects of sustainability, such as economic security, ecological integrity, and societal justice and equity. Specializations can be in an appropriate social science, economics, environmental policy and management, law, cultural influences on environmental issues, communications, public health, or related field.

Faculty Position(s) in Earth System Science: Successful candidates will have exceptional records as interdisciplinary scientists and educators, and will be creative in linking academia with practice. Preference will be given to candidates whose strengths are (a) remote sensing or (b) hydrology. However, the Center and Department will also welcome applicants from any area that builds on existing strengths in biodiversity, climate change, biogeochemistry, renewable energy, or related Earth science fields.

Candidates must have a PhD or equivalent terminal degree. Positions are full-time, 12-month, non-tenure track. A key criterion is willingness to interact across disciplines and beyond academia in a highly interactive and collaborative environment. A successful history of external funding is a strong advantage. Responsibilities include teaching at the graduate level, advising and supervising students, undertaking significant scholarly activity, and serving the public and the academic community. To apply, send a cover letter describing potential contributions, CV, statement of past and future research, statement of teaching interests and philosophy, history of external support, and three reference letters to:

Dr. Rodney S. Hanley, Chair
Department of Earth System Science and Policy
Box 9011, Clifford Hall
University of North Dakota
Grand Forks, ND 58202-9011
rshanley@aero.und.edu
Tel. (701) 777-3909 / Fax (701) 777-2940

Review of applications will begin January 2, 2006 and will continue until a suitable candidate is found. The University of North Dakota is an Equal Opportunity/Affirmative Action Employer.

Subject: Smithsonian fellowships

From: Richard Thorington <Thorington.Richard@NMNH.SI.EDU>

Date: Thu, 1 Dec 2005 11:12:05 -0500

To: MAMMAL-L@SI-LISTSERV.SI.EDU

Smithsonian fellowship applications are due by 15 Jan 2006. Fellowships are available for work at the National Museum of Natural History, the National Zoo, including the Conservation Research Center at Front Royal, Virginia, and the Smithsonian Tropical Research Institute in Panamá. I recommend that persons considering applications should correspond with their potential advisers.

Application information and forms are available at the following web site. Do not be put off by the 2005-2006 dates. The program is funded for the 2006-2007 period.

<http://www.si.edu/ofg/infotoapply.htm>

In the museum, e-mail addresses will change on 1 Jan 2006 to a new format [Last Name][First initial of first name, all truncated to eight characters]@SI.EDU
Examples: Thoringt@SI.EDU WilsonD@SI.EDU
Hoffmann@SI.EDU GardnerA@SI.EDU

E-mail: please use Thoringt@SI.EDU

Richard W. Thorington, Jr.

Division of Mammals

Smithsonian Institution

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