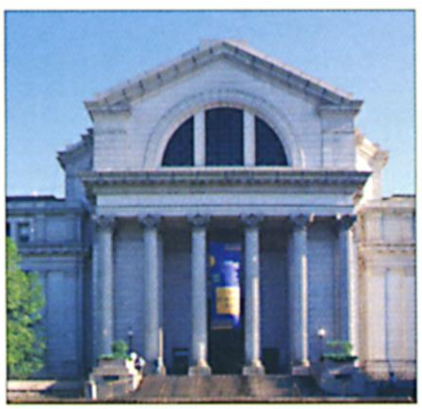
A Smithsonian Jewel: Biological Collections

ONE OF THE "JEWELS IN THE CROWN" OF THE Smithsonian Institution—the national biological collections and their associated systematics research programs—is overlooked in the News Focus article about Smithsonian science ("Turmoil behind the exhibits" by E. Pennisi, 13 Jul., p. 194). At a time when the demands for biodiversity information are greater than ever (*1*), the Smithsonian is one of the primary sources of such information, data, and knowledge.

The biological collections include 83 million biological specimens (complemented by 40 million fossils, plus smaller living collections), forming one of the two greatest collections of biodiversity in the world. Seventy Smithsonian research systematists work with these collections, along with 40 systematists in associated federal agencies and more than 50 research associates. This represents a unique federal partnership, begun in 1881, in which the U.S. Departments of Agriculture, Commerce, Defense, and Interior colocate their systematics researchers and identification services with the Smithsonian. These federal partners contribute $6.5 million annually toward our overall programs, which represents a massive cost-share for the Smithsonian.



The Smithsonian's National Museum of Natural History holds one of the world's premier biological collections.

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Over the last 10 years, the manner in which systematics products and identification services are paid for and distributed has changed dramatically (*2*). Many of the world's museums have been forced by financial problems to increasingly focus on provincial issues of greatest interest to the people who "pay the bills" (*3*). Meanwhile, world productivity in systematics research appears to be declining (*4*). Thus, the Smithsonian and its federal partners are becoming more and more important to provide the infrastructure to support systematics and identification services. Collectively, our biologists hosted over 900 scientific visitors for more than 10,000 visitor days, made 1433 outgoing loans totaling 166,695 specimens for research, and made more than 50,000 identifications in 2000. Over half the articles in major U.S. journals in systematic botany cite the use of Smithsonian specimens (*5*) and although there are 34 insect collections in North America with more than 1 million specimens, some 20% of the insect specimens loaned for research by North American museums come from the Smithsonian (*6*). Our role in graduate education is highlighted by hosting eight National Science Foundation Partnerships in Enhancing Expertise in Taxonomy (PEET) grants in collaboration with several universities.

We continue to add specimens at almost half a million annually (*7*), and external systematists are constantly upgrading the information content of our collections. We have begun increasing accessibility of our data by digitizing some 3.7 million records, representing 9% of the collection (*8*). Collections of specimens represent a vital information base for protecting the world's environment for future generations, and we are committed to put in place the infrastructure needed to efficiently manage and disseminate appropriate data, while maintaining the collections into perpetuity.

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References and Notes
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8. Some specimens are cataloged in lots, so the number of data records is less than the number of individual specimens.

Geneticists' Views on Embryonic Stem Cells

THE MEDIA COVERAGE OF THE CONTROVERSY over embryonic stem cell research cites the arguments of many individuals or selected groups, but what opinions do specialists in human genetics research hold about the issue? Last year I conducted a survey of U.S. members of the American Society of Human Genetics (*1*). The survey questions covered many ethical issues in the field of human genetics, several of which dealt specifically with embryonic stem cell research.

Of the more than 1200 respondents, 87% agreed with the 1999 ruling by the U.S. Department of Health and Human Services that exempted human embryonic stem cells from the Congressional ban on the use of federal funds for human embryo research. The ruling determined that the ban did not apply to human embryonic stem cells primarily because, by themselves, they do not have the capacity to develop into human beings. Most of these scientists (71%) favored discontinuance of the ban itself. But whether embryonic stem cell research was considered ethically acceptable depended on the source of the embryos. Significant majorities responded that it was acceptable to use embryos retrieved from

Letters to the Editor

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