

Imagine

a website for every species



Encyclopedia of Life

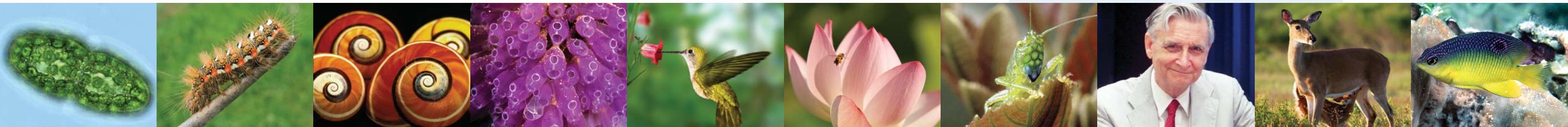
A N N U A L R E P O R T , 2 0 0 7 - 2 0 0 8



This first annual report underscores our remarkable accomplishments in a short time. The Encyclopedia of Life community is extremely grateful to our collaborators, board members, donors and supporters who helped make 2007-2008 a banner year.

In the blink of an eye, the Encyclopedia of Life (EOL) has been transformed from an idea to a reality. In large part, this progress is due to the many content providers that have been willing to share their information with us—Catalogue of Life, FishBase, Tree of Life Web Project and several others—and to the tireless efforts of the EOL Biodiversity Informatics Group, which incorporated the information into the EOL species pages template. In addition, we have been privileged to work with outstanding commercial partners, including Adobe Systems, Avenue A | Razorfish and Microsoft Live Labs/Photosynth. Most of all, EOL has been enabled by our major sponsors, the John D. and Catherine T. MacArthur Foundation and the Alfred P. Sloan Foundation.

EOL's commitment to serving authenticated biodiversity information to users around the world drives our future development efforts. A top priority is to provide more and better species pages for a greater array of organisms. Collaboration with our technology partners will lead to improved website capabilities and innovative tools to search, organize and upload information to EOL.



Strengthening our ties with the global scientific community will cement partnerships with groups around the planet. Citizen scientists, too, are vital for the success of EOL, and they will soon be able to share their images, text and comments.

We are thrilled that the world has welcomed this urgent and important resource with open arms, and we are eager to improve it with each day. It is our hope that the project continues to inspire curiosity, discovery and learning for many generations to come.

JAMES EDWARDS
EXECUTIVE DIRECTOR, ENCYCLOPEDIA OF LIFE



Encyclopedia of Life

"Imagine an electronic page for each species of organism on Earth, available everywhere by single access on command."

EDWARD O. WILSON

Edward O. Wilson, two-time Pulitzer Prize winner and Professor Emeritus at Harvard University, was recognized with one of the three prestigious TED (Technology, Entertainment, Design) prizes in 2007. The TED Prize is awarded each year at a gathering of the foremost representatives from these communities, where they exchange information and share ideas. In addition to the monetary award, each recipient has the opportunity to deliver an address on their "wish to change the world." Professor Wilson's wish was the creation of the Encyclopedia of Life.

Imagine...

...the richness of life at your fingertips



Earth is a delicate web of interdependent ecosystems. Now, we are creating an **ecosystem of websites** that will make all key information about life on Earth accessible to anyone, anywhere in the world. The Encyclopedia of Life promises to bring the natural world into focus as never before—in all its sublime, confounding and ineffable beauty.

The goal of this unprecedented project is to create a **constantly evolving encyclopedia** that lives on the Internet. It will consolidate humanity's knowledge about life on Earth and make it accessible to scientists, educators, students and ordinary citizens. The Encyclopedia of Life will offer **multimedia web pages** for the approximately 1.8 million known species on Earth—each containing accurate, scientifically verified, up-to-date information—all through a single, free portal.

...expanding our collective understanding

The Encyclopedia of Life will act as a "macroscope"—a microscope in reverse—helping users discern large-scale patterns and **transforming the science of biology**. EOL hopes to increase our collective understanding of life on Earth and safeguard the richest possible spectrum of biodiversity.

In addition, the Encyclopedia of Life will offer resources to expedite the naming

and classification of the millions of species yet to be discovered. Soon, anyone will be able to submit proposed content to EOL, and these submissions will be vetted by the scientific community to ensure the information is **authoritative and up to date**. This format encourages anyone with curiosity about the living world to become a roving field reporter.



Catharanthus roseus, Madagascar Periwinkle, EOL Exemplar Page



Nicrophorus americanus, American Burying Beetle, EOL Exemplar Page

...the confluence of innovation and urgency

The Encyclopedia of Life works to compile **scientifically verified species** information—currently scattered around the world in libraries, museums, herbaria, databases and other storehouses of expert knowledge—all in one place.

Advances in technology for searching, annotating and visualizing data now make it practical for EOL to offer high quality, well-organized information on an unprecedented scale. When available, text

"It is exciting to anticipate the scientific chords we might hear once 1.8 million notes are brought together through this instrument."

JAMES EDWARDS,
EXECUTIVE DIRECTOR, EOL

will be complemented by **photographs, video, sound, location maps** and other media.

With countless species going extinct before we can even glimpse them or begin to define their role within an ecosystem, we must **safeguard the richest possible spectrum of biodiversity**. EOL will increase our appreciation for the immense variety of life and the challenges to it, and **inspire new generations** of scientists and stewards of the environment.



The Encyclopedia of Life is:

- An unprecedented global effort to understand and preserve the biodiversity of our planet
- A leader in biology and technology whose affiliated scientists and citizen scientists study all forms and stages of life
- A resource to help us understand our planet's history and the variety of species with which we share it
- A partner in education that reaches millions around the world
- An invaluable source of free, verified, up-to-date and accurate scientific information

...an unprecedented global collaboration

Once viewed as "wishful thinking" by many, this endeavor is now entirely possible thanks to **great advances in technology** and the enthusiastic participation of the global scientific community.

The Encyclopedia of Life is a collaboration among an **international group** of leading natural history institutions and research facilities:

- Biodiversity Heritage Library consortium
- The Field Museum of Natural History

- Museum of Comparative Zoology, Harvard University
- Marine Biological Laboratory
- Missouri Botanical Garden
- Smithsonian Institution

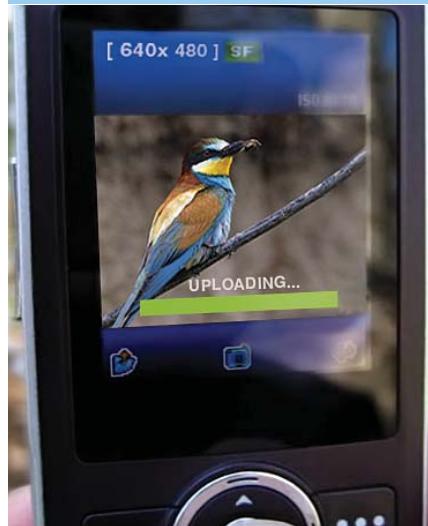
Other institutions around the world have been invited as collaborators, and links have been established with many relevant efforts, such as AmphibiaWeb, Catalogue of Life, FishBase, Global Biodiversity Information Facility and Tree of Life Web Project.

...an invaluable resource for humanity

The Encyclopedia of Life is expected to take 10 years to populate web pages on all 1.8 million known species of plants, animals and microorganisms. In that time, its **functionality will also evolve**. Among the many **potential applications** of EOL:

- Enriching a teacher's lesson plans on conservation with detailed, scientist-verified data on threatened species
- Using species data and molecular barcoding to allow a port inspector to monitor invasive species in ship ballast water
- Enabling climate researchers to link changes in butterfly populations to climate change
- Providing immediate access to scientific literature so taxonomists in developing countries can describe new species
- Allowing eco-tourists to download electronic field guides for their trip destinations

Executive Director James Edwards says of the project, "It is exciting to anticipate the scientific chords we might hear once 1.8 million notes are brought together through this instrument."





...a remarkable First Year

- **MARCH 2007** Famed biologist Edward O. Wilson wins the prestigious TED (Technology, Entertainment, Design) Prize. During his speech, Wilson outlines his dream: the creation of the Encyclopedia of Life—a web-based compendium of data on every aspect of the biosphere.
- **MAY 2007** Several of the world's leading scientific institutions announce the launch of the Encyclopedia of Life—an unprecedented global effort to document all 1.8 million named species on Earth—with a press conference at the National Press Club in Washington, D.C., and a reception at the U.S. National Academy of Sciences.
- **JULY 2007** After the EOL launch, more than 34,000 individuals indicate their enthusiasm and interest in collaborating with the EOL project.
- **AUGUST 2007** The Species Sites Group completes a preliminary search to identify taxonomic groups with species pages that can be retrofitted into the EOL format. Three groups are selected as content partners whose data will be used in the first version of the portal: Catalogue of Life, FishBase and Tree of Life Web Project.
- **FEBRUARY 2008** The alpha version of the EOL portal (www.eol.org) goes live at the 2008 TED conference with 30,000 species pages populated with detailed data, 24 highly developed multimedia exemplar pages and one million placeholder pages. This version of the portal serves as a pilot project to test EOL ideas and technology. During its first day, the site receives in excess of 300,000 page views as users log on from more than 200 countries around the world.
- **MARCH 2008** The Education and Outreach Group collaborates with the Institute for Learning Innovation to develop an audience analysis of the alpha version of the EOL portal, focusing on individual and group users of all ages worldwide. The results of this survey, with suggestions on how to enhance the EOL user experience, were released in July 2008.
- **APRIL 2008** The Biodiversity Synthesis Group hosts its first in-center synthesis meeting—MegaTree. The group shares new techniques to take the large number of smaller evolutionary trees for plants and graft them together into an extremely detailed, large evolutionary tree—a “megatree.”
- **JUNE 2008** The Biodiversity Heritage Library consortium has more than 6 million pages of biodiversity literature scanned, digitized and available online.

Species Sites Group

...assembling rich, current and accurate information about species worldwide



The Species Sites Group works with the scientific community and other contributors to assemble and authenticate the content needed for species pages.

Information on the species pages comes from a large number of sources around the globe. The group recruits diverse data providers and engages scientific experts to act as “curators” so that species information is correct and current.

The Species Sites Group is implementing a robust intellectual property policy to ensure open access to EOL materials. In addition, the group is working to develop specialized portals for different audiences.

Highlights:

The Species Sites Group spent the last year working with a limited set of content partners to test the concept of the species pages and how the technology would work. They also lined up additional content partners for subsequent releases.

The portal went live with 30,000 populated pages (including all species of fishes) and 24 exemplar pages, highlighting the depth of information available on the Earth's species and demonstrating the future potential of the Encyclopedia of Life.

Several key partnerships were cemented during the first year, including data-sharing agreements with the Catalogue of Life, FishBase and Tree of Life Web Project. Each of these content partners was vital in serving as a test case for future content-sharing projects with the scientific community.

It was a communal effort to identify and create the structure and template for EOL species pages. What appears on the site is due in large part to the generosity of those both within and beyond the scientific and EOL communities.

“The Encyclopedia of Life gives us the chance of a lifetime to accelerate our

understanding of biodiversity,” says Cynthia Parr, group leader. “I am particularly excited about working with scientists who study organisms that will be new and amazing to most of us. EOL will make it possible for these scientists to pursue their passion and share it as widely as possible.”

Component Groups direct the five subprojects of the Encyclopedia of Life:

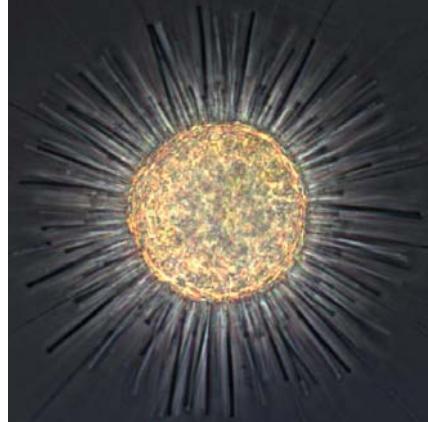
- Species Sites Group
- Biodiversity Informatics Group
- Scanning and Digitization Group
- Education and Outreach Group
- Biodiversity Synthesis Group

“The Encyclopedia of Life gives us the chance of a lifetime to accelerate our understanding of biodiversity.”

**CYNTHIA PARR
SPECIES SITES GROUP LEADER**



Anolis carolinensis, Green Anole, EOL Exemplar Page





Biodiversity Informatics Group

...creating innovative informatics solutions to serve EOL

Falco peregrinus, Peregrine Falcon, EOL Exemplar Page

"We are creating informatics programs and tools that will facilitate the collection and distribution of biological information on an unprecedented scale."

DAVID PATTERSON
BIODIVERSITY INFORMATICS GROUP LEADER



The Biodiversity Informatics Group is developing the software to establish a single portal to serve information on all known species that is now scattered in diverse websites and other sources all over the world. It is developing novel informatics tools to capture, organize and reshape knowledge about biodiversity.

This informatics infrastructure is the keystone component upon which all other parts of EOL depend. The group collaborates with data providers, seamlessly aggregating data from thousands of sites into species pages.

Highlights:

"In 1999, I was introduced to the power of names-based management of biological information, and a light was switched on," says group leader David Patterson. "It illuminated a landscape of biological information brought to order. We had found the mechanism by which we could realize an encyclopedia capable of indexing and organizing all information about all species."

The group's team of computer experts, developers, content managers and biologists made rapid progress in the short time from July 2007 to February 2008—providing IT support for the entire project, developing the software and indexing architecture, and working with more than 200 content partners contributing information for the inaugural launch.

"The Encyclopedia of Life is a communal resource that directly connects those interested in learning about biodiversity to the most compelling resources available,"

says Patterson. "The Biodiversity Informatics Group creates informatics programs and tools that will facilitate the collection and distribution of biological information on an unprecedented scale."

The Biodiversity Informatics Group also worked closely with the Species Sites Group and the innovative interactive agency Avenue A | Razorfish to design the page experience and create an award-winning concept video.

The Encyclopedia of Life concept video, created by Avenue A | Razorfish, is designed to generate awareness and excitement about EOL.

The four-minute video—which can be seen on www.eol.org—was recognized with a 2007 Pirelli International Award as one of the best multimedia presentations for the diffusion of science and technology.

EOL is delighted to share this honor with their colleagues at Avenue A | Razorfish (www.avenuea-razorfish.com).

Scanning and Digitization Group

...making the published record of biodiversity open to all



The Scanning and Digitization Group is led by the Biodiversity Heritage Library—a consortium of ten libraries of natural history, botany and zoology that are digitizing the published literature of biodiversity held in their respective collections and making it available as part of an open biodiversity commons. The BHL Portal (biodiversitylibrary.org) is linked to the EOL species pages.

Digitized literature is valuable to a wide range of scientists and non-scientists alike.

- Individuals in developing countries and citizen scientists who lack affiliation with major research institutions will now be able to search, read, download and print literature that was previously unavailable to them.
- Artists can use the detailed illustrations in many taxonomic works as motifs or design concepts in digital and traditional media.
- Educators guiding students in biological research can access a wealth of examples to incorporate into lesson plans and assignments.

Highlights:

In the past year, the Scanning and Digitization Group has continued to ramp up. As of June 2008, the Biodiversity Heritage Library provides access to 6 million pages scanned from more than 12,000 volumes. Permissions for digitizing nearly 50 publications—mostly significant scientific journal runs—were obtained from several publishers, with more agreements under discussion.

The Biodiversity Heritage Library reached agreement with BioOne, a major not-for-profit aggregator of biology journals, to make a subset of the BioOne journals available on the BHL Portal. These "born digital," peer-reviewed journals will

significantly enhance the available content on the BHL Portal.

The BHL Portal has also added new, enhanced functionalities, including taxonomic name searching and integration with EOL.

"The group uses the best informatics solutions to integrate essential biodiversity literature material—with major scientific and bibliographic importance—into EOL," according to Thomas Garnett, group leader. "It is our priority to steward this content for long-term preservation and open access, and to establish policies and relationships that ensure the digitized content remains freely accessible through time."



"Our priority is to steward this essential biodiversity literature for long-term preservation and open access."

THOMAS GARNETT
SCANNING AND DIGITIZATION GROUP LEADER



Education and Outreach Group

...facilitating collaborative online biodiversity learning tools



The Education and Outreach Group works to generate global awareness of the Encyclopedia of Life as a collaborative learning tool, exploring and promoting new and exciting uses of this extraordinary resource.

The group strives to make EOL relevant, usable and interesting to a broad range of international audiences. It seeks to raise awareness, understanding and appreciation of biological diversity among people worldwide.

In the future, the Education and Outreach Group will encourage participation by providing interested parties with tools to organize and record their own observations, media and data about the species they see, find and study.

Highlights:

In May 2008, the Education and Outreach Group convened a 15-member international Advisory Committee comprised of prominent individuals from varied educational and public engagement backgrounds. The Advisory Committee works with the group to gain extensive recognition of the Encyclopedia of Life as a reliable, reputable, scientist-verified biodiversity resource and to explore and promote innovative and significant uses of EOL.

The group has been developing contacts, partner relationships and activities designed to ensure EOL is pertinent, easy-to-use and engaging for diverse international audiences.

In conjunction with the Institute for Learning Innovation, the group conducted a user survey—designed to better understand the current users of EOL and how to support them more effectively—between January and June 2008. This survey will provide valuable feedback for further

development of EOL as an educational and outreach resource.

According to group leader Marie Studer, "EOL offers an unprecedented opportunity to enhance learning about biodiversity and nature among people from all walks of life. EOL will encourage a variety of approaches to learning by allowing the user to design the form and content of the species information they use or contribute to meet their individual needs."

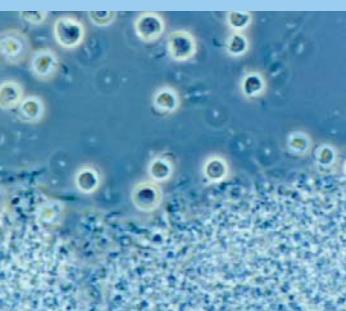


"EOL offers an unprecedented opportunity to enhance learning about biodiversity and nature among people from all walks of life."

MARIE STUDER
EDUCATION AND OUTREACH
GROUP LEADER



Chromis abyssus, Deep Blue Chromis, EOL Exemplar Page



Cafeteria roenbergensis,
EOL Exemplar Page

Biodiversity Synthesis Group

...using EOL to accelerate the pace of scientific discovery in biodiversity and evolution



Access to information is the key to answering many pressing questions in biology, from genetics and anatomy to ecology, evolution and conservation. To help answer these questions, the Biodiversity Synthesis Group funds meetings and workshops on biodiversity, conservation and evolution, helping users develop new ideas and discern large-scale patterns, thus transforming the science of biology.

The Biodiversity Synthesis Group aims to find new ways in which scientists, conservationists, academics and educators can take advantage of the rich information being provided by the Encyclopedia of Life. The group supports cross-disciplinary meetings to explore integrative topics in biodiversity—such as the classification of organisms, their role within the global ecosystem, their place in the evolutionary Tree of Life, and new methods for analyzing and visualizing biological data.



Highlights:

The Biodiversity Synthesis Group made significant progress in its first year and is now accepting and funding proposals for synthesis meetings. (See www.fieldmuseum.org/biosync for more information.)

Many interesting proposals have been received and several funded—from producing a comprehensive evolutionary tree for all flowering plants to hosting a meeting of world experts on decapods (crabs, lobsters and their relatives).

According to group leader Mark Westneat, "One of the most exciting projects

underway is finding new ways to visualize complex evolutionary trees, and linking the Tree of Life to species data so that it can be used and understood by scientists and students of all ages."

"Access to information about biodiversity has the potential to accelerate scientific discoveries and reveal answers to the next big questions about life—from developing insights into major patterns of evolution to understanding why some areas, like reefs and rainforests, are so rich in biodiversity," says Westneat.



Hecastocleis shockleyi,
Prickleleaf, EOL Exemplar Page

"Access to information about biodiversity has the potential to accelerate scientific discoveries and reveal answers to the next big questions about life."

MARK WESTNEAT
BIODIVERSITY SYNTHESIS
GROUP LEADER



Pycnopsyche gentilis, Caddisfly,
EOL Exemplar Page

Looking Forward



Pissodes strobi, White Pine Weevil,
EOL Exemplar Page



Pinus strobus, Eastern White Pine,
EOL Exemplar Page



Megaloprepus caeruleatus,
Giant Helicopter Damselfly,
EOL Exemplar Page



Even as we celebrate the achievements of our 2007-2008 year, we are focusing on the future. The mission of EOL—to advance and preserve knowledge about the world's biodiversity—demands that we move as fast as discovery unfolds.

Component Group Initiatives

"Regional EOLs" are an indexed collection of the flora and fauna that occur in a particular geographic vicinity, providing an invaluable resource for focused research and learning. The first regional EOL is being developed by the Naturalis Museum in Leiden to serve Dutch-language species pages on the plants and animals of The Netherlands. The **Species Sites Group** plans to work with its international partners to establish at least two additional regional EOLs during the coming year.

The **Biodiversity Informatics Group** is developing technology to allow citizen scientists and experts alike to share their species knowledge with the entire EOL community. A "LifeDesk" suite of tools and services will be deployed to index, organize and associate data elements or create new elements, with functions and templates to author species pages, build taxonomic catalogues, organize specimens, accept observations and sighting reports, and enhance dialogue among participants.

In an effort to serve 12 million literature pages by the end of 2009, the Biodiversity Heritage Library continues to partner with new journals and scientific databases around the world. The **Scanning and Digitization Group** will focus on improving response time for queries and acquiring permissions to digitize and mount in-copyright works from non-profit publishers.



Partner Activities

Adobe Systems' Tree of Life Visualization

Adobe's partnership with the Encyclopedia of Life began at TED 2007, when Adobe was inspired by Edward O. Wilson's compelling vision for EOL.

Adobe's Experience Design team (XD) began developing an interactive, intuitive, user-friendly Tree of Life to be incorporated into EOL. The Tree of Life is a graphic that shows the phylogenetic, or evolutionary, relationships among various species that are thought to have a common ancestor. The team let the data lead to the visualization,

eventually settling on a variation of the "treemap" algorithm developed at the University of Maryland. Then began the effort of wrestling 1.8 million nodes of data—one for each species—into a form that could be easily managed and matched with relevant pictures.

A live prototype version of the Adobe visualization was demonstrated at TED 2008, and a public beta version will be available in the future. See www.adobe.com/xd/eol for more information.



Microsoft Live Labs and Photosynth

Microsoft Live Labs is working on Photosynth, an innovative technology that will change forever the way we think about digital photos. This software takes a large collection of photos of a place or an object, analyzes them for similarities, and links them together in a web. Photosynth then displays the photos in a reconstructed three-dimensional space.

EOL species pages will come to life with Photosynth technology. Users will be able

to access gigabytes of photos in seconds, view a scene from nearly any angle, find similar photos with a single click, and zoom in to make the smallest detail as big as the monitor.

Microsoft's visualization of species images was demonstrated at TED 2008. Synths (Photosynth collections) will begin appearing on the EOL site later in 2008. An early preview of Photosynth is available at <http://labs.live.com/photosynth>.



Invaluable Support



The cost of the first five-year phase of the Encyclopedia of Life is estimated at \$50 million. The Encyclopedia of Life gratefully acknowledges the John D. and Catherine T. MacArthur Foundation and the Alfred P. Sloan Foundation, which have generously funded the startup costs of EOL. Their vision and invaluable support has helped turn EOL from a dream into reality.

MACARTHUR

The John D. and Catherine T. MacArthur Foundation

"The Encyclopedia of Life can raise our sights and expand our view of life on Earth. Just as a microscope reveals and helps us better understand the small and particular, EOL can serve as a macroscope allowing us to discern patterns previously unseen, illuminating relationships, identifying gaps in our knowledge and suggesting opportunities for new avenues of inquiry. It can help track biodiversity as climate change and human activity put species under pressure. It can add great value to the work of the scientist, the student, the conservationist, the policy maker and the passionate amateur."

Jonathan Fanton, President
The John D. and Catherine T. MacArthur Foundation



THE ALFRED P. SLOAN FOUNDATION

"At its launch in May 2007, we said EOL can be done. The remarkable progress made in the few months since has fostered confidence it will be done. The EOL canvas now has a million sketch lines and we have painted a small corner in full color. We look forward to public reviews that will shape the final product."

Jesse Ausubel, Program Director
The Alfred P. Sloan Foundation

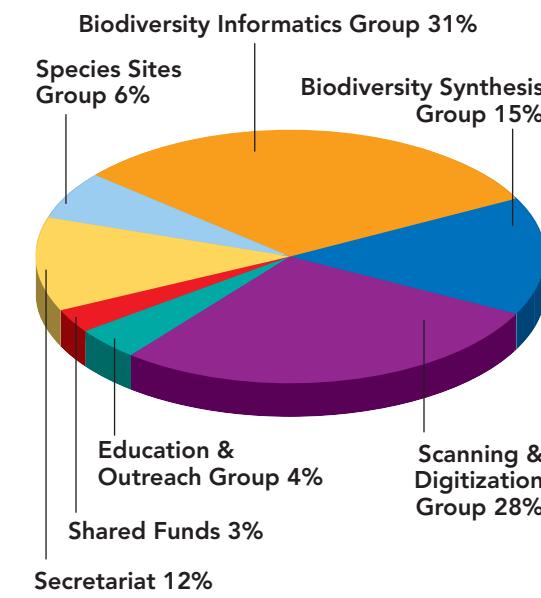
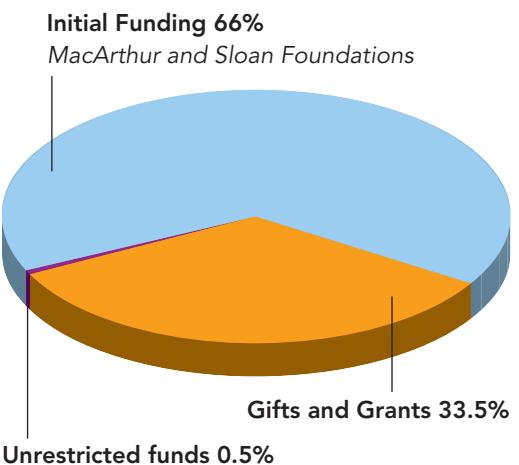
The Alfred P. Sloan Foundation makes grants in science, technology and the quality of American life. Major science initiatives of the Foundation in recent years include the Sloan Digital Sky Survey, the Census of Marine Life and the Barcode of Life Initiative. Sloan's support for the Encyclopedia of Life melds its interests in environmental science with its interest in universal access to recorded knowledge. www.sloan.org

Financial Data



These charts represent Encyclopedia of Life's pre-audit sources and uses of fiscal year one and two funds. With funds from grants and private donors, EOL undertakes new ventures and provides the critical financial foundation for carrying out innovative research, expanding and strengthening our international partnerships, developing new projects and technologies, and reaching out to the world's diverse communities.

Sources and Uses of Funds



SOURCES OF FUNDS

Initial Funding	\$12,500,000
MacArthur and Sloan Foundations	
Gifts and Grants	\$6,419,719
Unrestricted funds	\$89,420
TOTAL	\$19,009,290

USES OF FUNDS

Secretariat	\$2,319,352
Species Sites Group	\$1,065,648
Biodiversity Informatics Group	\$5,956,885
Biodiversity Synthesis Group	\$2,932,500
Scanning & Digitization Group	\$5,391,319
Education & Outreach Group	\$800,000
Shared Funds	\$543,435
TOTAL	\$19,009,290



Thanks to Our Donors

\$2,500,000 and up

John D. and Catherine T. MacArthur Foundation
Alfred P. Sloan Foundation

\$1,000,000 to \$2,499,999

The Ellison Medical Foundation
The Harris Family Foundation
Museum of Comparative Zoology, Harvard University
J.B. and M.K. Pritzker Family Foundation

\$100,000 to \$999,999

Atherton Seidell Endowment
Institute of Museum and Library Services
MaryEllen and Richard Keyser
Andrew W. Mellon Foundation
Gordon and Betty Moore Foundation
Smithsonian Institution
Edward O. Wilson

\$10,000 to \$99,999

Valerie Anders (The Anders Foundation)
Judy Hart Angelo and John M. Angelo
Judith L. Cherwinka
Addison Fischer
Global Biodiversity Information Facility
The Grainger Foundation
Marine Biological Laboratory
The Trio Foundation of St. Louis

EOL Cornerstone Institutions



The Encyclopedia of Life is a collaboration among an international group of leading natural history institutions and research facilities.



The **Biodiversity Heritage Library** consortium is comprised of ten major natural history museum libraries, botanical libraries and research institutions. This international group works to digitize the published literature of biodiversity in their collections and make it available through a global "biodiversity commons." www.biodiversitylibrary.org

The **Field Museum of Natural History** was incorporated in 1893 for the "accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating art, archaeology, science and history." The Field Museum is an international leader in anthropology, evolutionary biology, botany, conservation, cultural understanding, geology and zoology. www.fieldmuseum.org

The **Missouri Botanical Garden**, founded in 1859, is the oldest botanical garden in continuous operation in the United States. The 79-acre Garden is a National Historic Landmark and a center for science, conservation, education and horticultural display. www.mobot.org

The **Marine Biological Laboratory** is an international center for research, education, and training in biology, biomedicine and ecology. The Marine Biological Laboratory is the oldest private marine laboratory in the United States, with research in fields such as ecology, cell biology, neuroscience, genomics and microbiology. www.mbl.edu

Harvard University, which celebrated its 350th anniversary in 1986, is the oldest institution of higher learning in the United States. Established in 1859, the Harvard Museum of Comparative Zoology and its collections are a world-renowned center for research and education. www.mcz.harvard.edu

The **Smithsonian Institution** was founded 1846 "for the increase and diffusion of knowledge." Today the Smithsonian includes 19 museums, galleries and the National Zoo, 9 research centers and more than 150 affiliates in 39 states. In 2007 its museums had more than 24 million visitors. The Smithsonian Institution's National Museum of Natural History hosts the EOL Secretariat. www.smithsonian.org

Steering Committee



The Steering Committee is composed of senior figures from the cornerstone institutions and liaisons from EOL's financial sponsors.

It provides hands-on guidance and serves as the major forum for coordination of the various facets of the project. The Committee meets quarterly and is accountable for EOL's success and meeting performance metrics.

James Hanken, Chairman

Director,
Museum of Comparative Zoology
Harvard University, Cambridge, MA

Jesse Ausubel

Program Director,
Alfred P. Sloan Foundation, New York, NY

Gary G. Borisy

Director and Chief Executive Officer,
Marine Biological Laboratory,
Woods Hole, MA

James L. Edwards

Executive Director, Encyclopedia of Life
National Museum of Natural History
Smithsonian Institution, Washington, D.C.

Graham Higley

Head of Library and Information Services,
Natural History Museum, London, England
Chair, Biodiversity Heritage Library

John W. McCarter, Jr.

President and Chief Executive Officer,
The Field Museum of Natural History,
Chicago, IL

Peter H. Raven

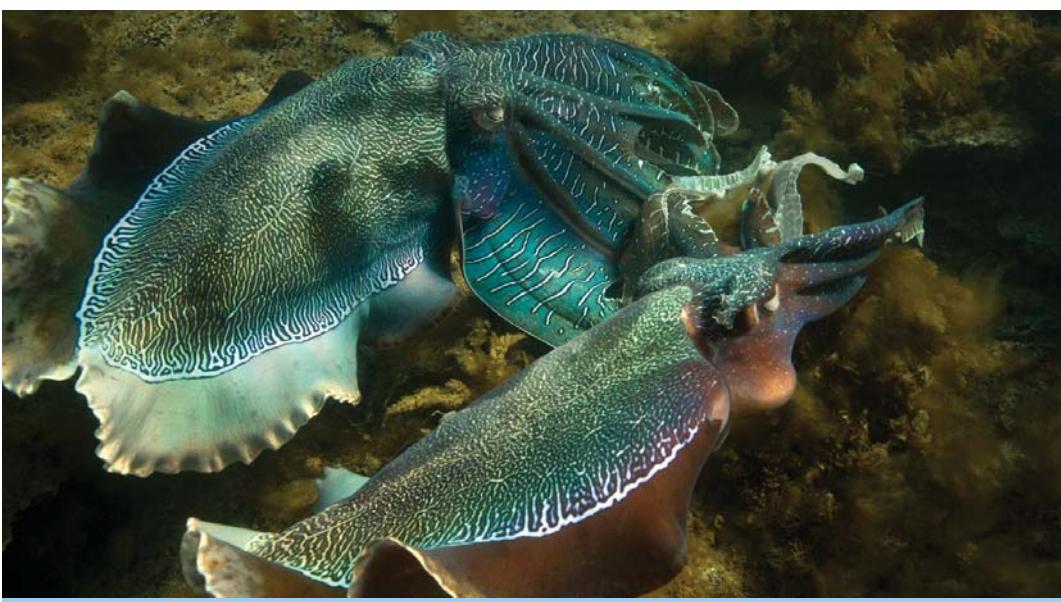
Director, Missouri Botanical Garden
St. Louis, MO

Cristián Samper

Director, National Museum of Natural History
Smithsonian Institution, Washington, D.C.

Arthur Sussman

Vice President, John D. and Catherine T.
MacArthur Foundation, Chicago, IL



Sepia apama, Australian Giant Cuttlefish, EOL Exemplar Page



Institutional Council



The Institutional Council consists of representatives from institutions around the world. They meet annually and provide a global perspective for EOL.

John W. McCarter, Jr., Chair

President and Chief Executive Officer
The Field Museum of Natural History

American Institute of Biological Sciences

Represented by Richard O'Grady, Executive Director;
Paula Mabee, Professor, Department of Biology,
University of South Dakota

American Museum of Natural History

Represented by Michael J. Novacek, Senior Vice-President
and Provost of Science

ARKive

Represented by Richard Edwards, Director

Atlas of Living Australia

Represented by Joanne Daly, Group Executive, CSIRO
Agribusiness

Botanic Gardens Conservation International

Represented by Sara Oldfield, Secretary General

Catalogue of Life Partnership

Represented by Frank Bisby, Director, Species 2000

Chinese Academy of Sciences

Represented by Le Kang, Director-General, Bureau of Life
Sciences and Biotechnology

Comisión Nacional de Biodiversidad (CONABIO-Mexico)

Represented by Ana Luisa Guzmán, Executive Secretary

Consortium of European Taxonomic Facilities (CETAF)

Represented by Stefan Claesson, Chair

Cornell Lab of Ornithology

Represented by John Fitzpatrick, Director

FishBase

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Encyclopedia of Life content partners work closely with the EOL component groups to provide authenticated species information through the EOL portal. Please visit their websites to find additional information not available through EOL.



AmphibiaWeb is an online biodiversity resource enabling global public access to information and maps on amphibian natural history, conservation, threats and causes of decline. AmphibiaWeb partners with EOL to provide complete taxonomic summaries for amphibians, nearly 2,000 species accounts and more than 12,000 photos.
www.amphibiaweb.org



The **Catalogue of Life Partnership** is an informal partnership dedicated to creating an index of the world's organisms, the Catalogue of Life (CoL). The CoL provides access to an integrated species checklist and taxonomic hierarchy, presently covering more than 1.1 million species. EOL currently uses CoL as its taxonomic backbone. www.catalogueoflife.org



FishBase is a global information system containing data on nearly every known species of fish. FishBase is providing information on more than 30,000 fish species through EOL.
www.fishbase.org



The **Global Biodiversity Information Facility** (GBIF) provides information on biological specimen and observational data, with online access to more than 157 million data records from around the world. The EOL species pages derive range maps from the GBIF network of data providers. www.gbif.org



International Union for Conservation of Nature (IUCN) helps the world find pragmatic solutions to our most pressing environment and development challenges. EOL partnered with the IUCN to indicate status of each species according to the Red List of Threatened Species.
cms.iucn.org



The **Solanaceae Source** website is part of the creation of a worldwide monograph of the species of the plant genus *Solanum* (Solanaceae, the potato and tomato family). The project will ultimately provide information on all of the almost 2,000 species of *Solanum* through EOL pages. www.solanaceaesource.org



Tree of Life (ToL) Web Project provides information about the diversity of organisms on Earth, their evolutionary history and characteristics on more than 9,000 web pages. The pages are linked to one another hierarchically in the form of the evolutionary Tree of Life to illustrate the genetic connections between all living things. ToL Web is concentrating on pages for supra-specific groups of organisms and EOL on species-level pages. www.tolweb.org

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