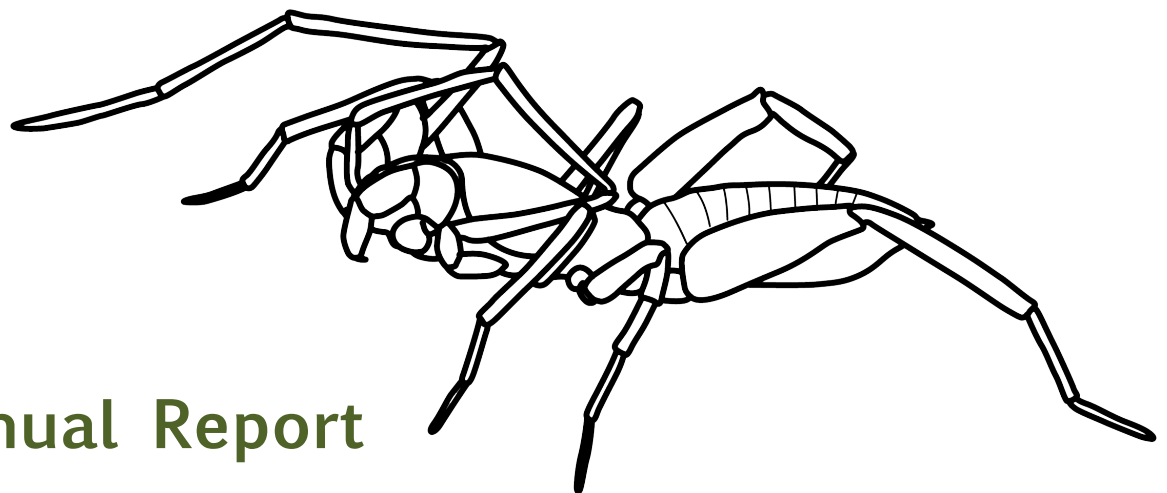


# Subterranean Ecology Institute, Inc.

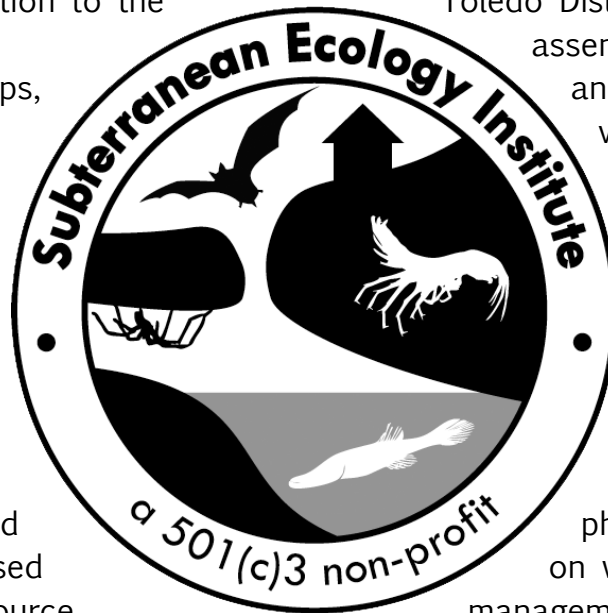
1116 W William St, Champaign, IL 61821  
info@cavelife.org      <http://cavelife.org/>



**2011 Annual Report**

**A**s our first year in existence, 2011 was an exciting time for the Subterranean Ecology Institute. Our major administrative accomplishment was to receive our designation as a **501(3)c nonprofit organization** from the IRS. Programmatically, we engaged with a collaborator, Clifftop Alliance, on our **Illinois Project** to initiate studies of subterranean ecosystems in an Illinois Nature Preserve. We also launched our **Galapagos Project**, and, in collaboration with the Ozark Highlands Office of The Nature Conservancy, our **Arkansas Project**.

But by far our greatest accomplishments for 2011 were related to our **Belize Project**. With funding from our donors and an International Exploration Grant from the National Speleological Society Foundation, we were able to launch our first, and in fact *the* first, biospeleological expedition to the Toledo District, in far southern Belize. A team of experts was assembled, and, working with in-country agencies, groups, and local community leaders, we were able to visit a variety of caves. This work has led to the discovery of a number of undescribed species, underscoring the extent to which our knowledge is still, in many parts of subterranean ecosystems of the world, in its' infancy.



During 2011, the Institute also reached out to the general public through our new website – [cavelife.org](http://cavelife.org) – where project descriptions and photographs of our work can be viewed. We also focused on working with cavers, karst scientists, and the resource management community, by presenting preliminary findings from our projects at the annual meeting of the National Speleological Society, and through participation in the 2011 National Cave & Karst Management Symposium.

The successes of our founding year have left us energized and looking forward into 2012, wherein, through the resources contributed by donors, collaborative alliances, and outside funding, we will find new opportunities to grow and serve the public good, **providing greater understanding and protection for our fragile heritage underfoot**. Through our work in **documenting, studying and conserving subterranean ecosystems**, we will continue focus on giving people **a greater appreciation of the importance of subterranean ecosystems**.

Steven J. Taylor  
President, Subterranean Ecology Institute, Inc.  
[steve@cavelife.org](mailto:steve@cavelife.org)

# Illinois

In Illinois, the Subterranean Ecology Institute is working with another nonprofit, Clifftop Alliance, to study a mine in White Rock Nature Preserve. The aim of this work, lead by Clifftop <<http://clifftopalliance.org/>> and involving a number of organizations and funding sources, is to restore the mine so that it may serve as habitat for bats.



Above: An Illinois mine entrance prior to gating.

The Subterranean Ecology Institute has contributed by inking a map of the mine, and by purchasing data loggers to monitor temperature and humidity at the site. Future work may involve inventories of invertebrates in the mine.

# Arkansas

Arkansas' Ozark Region is comprised of a rugged landscape with extensive and poorly understood subterranean ecosystems. The Subterranean Ecology institute is working with the Karst Program

Coordinator of the Ozark Highlands Office of The Nature Conservancy to study caves and karst ecosystems in the eastern part of the Arkansas Ozarks, and we seek to enhance understanding of, and appreciation for, the subterranean resources of this region.



Above: A tri-colored Bat, *Perimyotis subflavus*, roosting in an Arkansas cave. The bat is covered in water droplets, a fairly common occurrence for this species.



Above: A cave cricket, *Ceuthophilus gracillipes*, in an Arkansas cave.

# Galapagos

Galapagos Island caves are lava tubes, and while these islands are quite famous to biologists, and have been visited by humans for many years, relatively little is known of the biota inhabiting the subterranean voids. The Subterranean Ecology Institute is working with an Ecuadorian vulcanospeleologist in the Department of Earth Sciences and Construction at the Escuela Politécnica del Ejército (Sangolquí, Ecuador) and a speleologist from Washington University (St. Louis, Missouri) to undertake biospeleological studies of lava tubes. Preliminary exploration in 2010 suggests that a number of new species could be documented by conducting fieldwork on some of the less well-studied islands.



Above: A lava tube cave in the Galapagos Islands. Photo © Jean Krejca.

# Belize

Belize has a history of biospeleological explorations extending back into the 1970s, but nearly all of that work has taken place in the more accessible Cayo District of central Belize. Our 2011 biospeleological

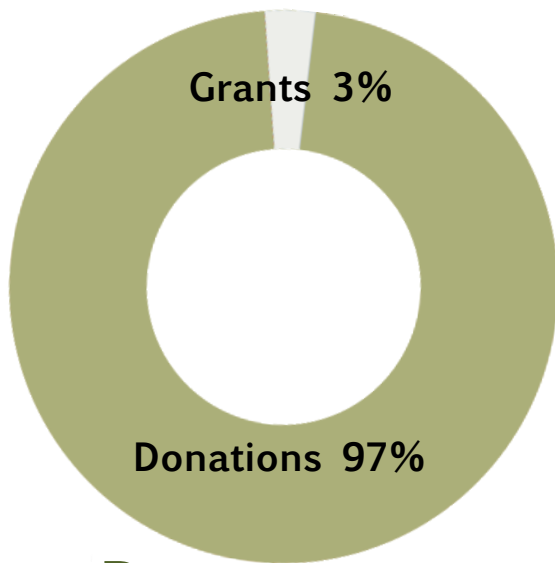
expedition focused on caves further south, in the Toledo District, where we are unaware of any previous cave invertebrate collections having been made.



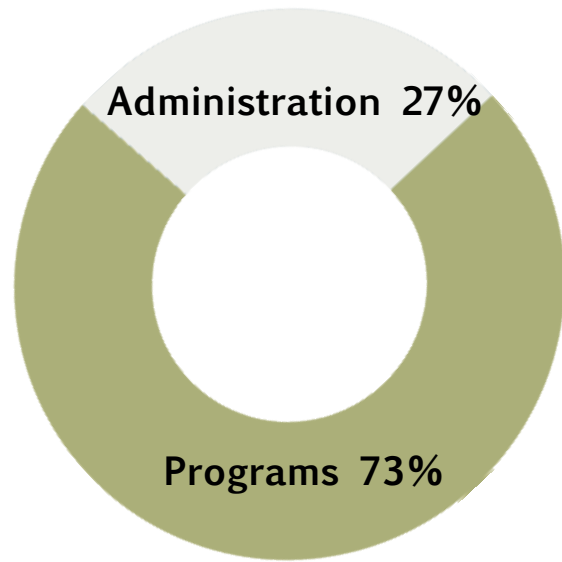
Above: Gabriel Chaco, a Mayan cave guide assists with fieldwork in southern Belize. Photo © Geoff Hoes.

The 2011 expedition returned to the United States with a variety of undescribed species, including spiders, millipedes, crickets, and numerous other invertebrates. This biological material is presently being worked up by taxonomic specialists. We plan to return in 2012 for more work in this area. You can find a slide show about this expedition on the Subterranean Ecology Institute website at <http://cavelife.org/>





## Resources



## Expenses

Our funding was dominated by a generous contribution from a single donor during our founding year, but we were happy to also obtain some grant funding. As a very small non-profit, administrative costs (legal fees, 501(c)3 nonprofit filing fees, developing a web presence) made up a greater portion of our expenses than we had hoped. In the coming year, we won't have the costs associated with forming the organization and will be reducing our dependence upon legal services. Thus, we anticipate a greater proportion of our expenses being related to programmatic activities in the coming year.



Above: SEI volunteer expedition members celebrate completing year one working in Belize. Photo © Mike Slay.

# Board of Directors

Steven J. Taylor  
President

JoAnn Jacoby  
Secretary

Ira W. Taylor  
Treasurer

# Special Thanks

to all of our 2011

## Donors

especially major donor

Ira W. Taylor  
and the

National Speleological Society Foundation

## Collaborating Organizations

Clifftop Alliance

The Nature Conservancy

Zara Environmental

Illinois Natural History Survey

Belize Institute of Archeology

Belize Forest Department

University of Illinois

University of Arkansas

Auburn University

Escuela Politécnica del Ejército

Washington University

## Volunteers

whose contributions are central  
to realizing our objectives

Geoffrey B Hoese

Jean K. Krejca

Robert McIntyre

Steve McIntyre

Michael E. Slay

Christy M. Slay

Jack D. Taylor



Above: An SEI volunteer searches a cave for signs of life. Below: A millipede wanders through a cave in southern Belize. Photos © Geoff Hoese.

