

Subterranean Ecology Institute, Inc.

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2013 Annual Report

During our third year as a 501(c)3 non-profit organization, the Subterranean Ecology Institute (SEI) 2013 saw our efforts to support scientific research on subterranean ecosystems finally come to fruition in the form of peer-reviewed scientific papers.

In April, a new species of spider was described by Jason Bond (Auburn University) and Steve Taylor (University of Illinois) on the basis of material from our expeditions to Belize, naming the species *Tarsonops irataylori* in honor of major SEI donor Ira Taylor, in recognition of his contributions to the study of subterranean ecosystems. Then, in June, another paper came out, recording a new record for a silverfish collected during the Subterranean Ecology Institute's 2012 expedition in a cave in southern Belize. The authors Luis Espinasa (Marist College), Steve Taylor (University of Illinois) and Monika Espinasa (State University of New York Ulster) record this species for the first time from Belize and compare it to other collections of this cryptic, cave-associated species, as well as providing some new molecular data. Finally, a forty-page scientific article by Felipe Soto-Adames and Steve Taylor (both of the University of Illinois) describes two new species of springtails from material collected during SEI's expeditions to southern Belize caves. One of these two species *Trogolaphysa jacobyi*, is a troglobiont, and is named for one of the collectors, SEI board member JoAnn Jacoby.

Our efforts towards providing greater understanding and protection for subterranean environments in Belize were further supported in 2013 by an International Exploration Grant from the National Speleological Foundation in support of our fieldwork in Belize. In addition,

the Subterranean Ecology Institute has begun a new project in 2013, led by scientists Megan Porter, Mike Slay and Matt Niemiller, to collect specimens and tissue samples of karst groundwater amphipods in the genus *Stygobromus*, and to assess specimen localities to help develop conservation priorities and management recommendations. The lead scientists are part of a larger cooperative effort by the *Stygobromus* Working Group to study cave and other groundwater amphipods. This new effort is now strongly supported by a significant grant from the Cave Conservancy of the Virginias, administered by SEI.



Cave biologists searching for life in a subterranean stream. Photo by Steve Taylor.

Finally, further support from various private donors, most notably, Ira Taylor, as well as a corporate donation from Mine Gates, Inc., continue to ensure that we can, through outreach and education, continue to serve the public good by drawing attention the fragile underground ecosystems of the world and providing new knowledge to facilitate conservation and management of subterranean ecosystems.

In 2014, we look forward to our third expedition to southern Belize, as well as work in the Galapagos Islands of Ecuador and to enhancing our ties with Clifftop, a nonprofit organization based in western Illinois. Watch the Subterranean Ecology Institute website < <http://cavelife.org/> > for information on our 2014 activities.

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Cover Photo: A group of researchers entering an eastern Tennessee cave. Photo by Steve Taylor, 2013.



A cave salamander, *Eurycea lucifuga* in an eastern Tennessee cave. Photo by Steve Taylor, May 2013.

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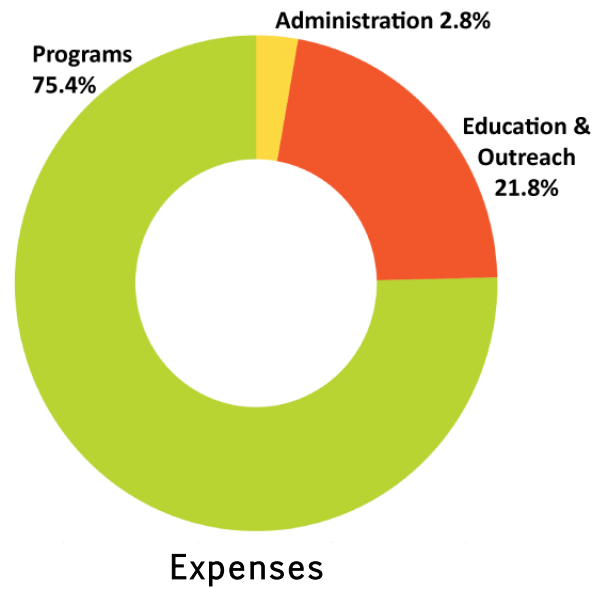
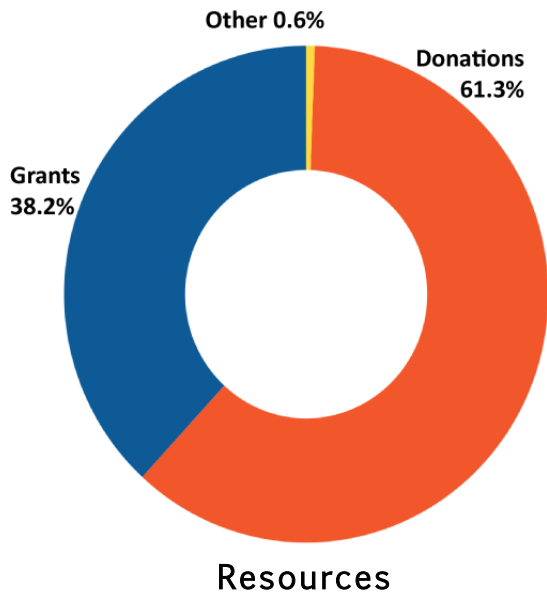
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Our 2013 funding was dominated by a generous contribution from a single donor, but our organization also saw our list of donors growing, including a significant contribution from Mine Gates, Inc., a corporation that works to conserve subterranean resources. We again obtained grant funding to support an expedition to southern Belize, and through the efforts of the *Stygobromus* Working Group (a group of scientists studying cave and groundwater amphipods), secured significant funding to support groundwater amphipod research. We continue to hold our administrative costs to a minimum, allowing us to better utilize the funds secured through donations and grants to focus on programmatic activities, and, through education and outreach, increase public understanding and appreciation of subterranean ecosystems.



Stygobromus Working Group scientists returning from a West Virginia cave, in search of amphipods. A grant from the Cave Conservancy of the Virginias is funding the group's work, which will provide valuable data to inform conservation and management decisions.