

Fall 2009

Volume 10, No. 4

DLiA
Discover Life in America

ATBI Quarterly

In partnership with Great Smoky Mountains National Park-Great Smoky Mountains Association-Friends of the Smokies

OVER 900 New Species to Science and Counting!!

THIS AMAZING PROJECT CONTINUES TO GAIN MOMENTUM

TAXA TALLY

New to Science = 904

Becky Nichols

New to the Park = 6,417

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University of Pennsylvania
Dr. Tom Lovejoy,
The Heinz Center
Dr. Ron Pulliam,
University of Georgia
Dr. Peter Raven,
Missouri Botanical Garden
Dr. Edward O. Wilson,
Harvard University
Dr. Sylvia Earle,
National Geographic Society

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Volunteer Coordinator

Thank you for a great year with Discover Life in America. In 2009 researchers found several interesting new species. DLIA and the Park Service collaborated to inventory new tracts added to the Park's west end through a re-licensing agreement with Alcoa Power and The Nature Conservancy. One of the species new to the Park is the hoptree (*Ptelea trifoliata*). It is known to be scattered in small numbers in the midwest and southeast United States. In the Great Smoky Mountains the hoptree is restricted to one site on a steep, limestone outcrop. It is one of the 103 native tree species known to exist in the Park.

A very rare species of land snail, new to the Park, was also discovered on these tracts. The toothy coil snail (*Heliodiscus headori*), considered "critically imperiled globally" by NatureServe, is known only to exist in one other place in the world. The unusual name was given to it because of its rectangular teeth in the aperture of the shell to prevent predation by snail-eating beetles. A DLIA researcher found the "Toothy Coil" on a rock outcrop that had many other land snail species - at least 35 - including two other new species records for the Park. This site is probably one of the richest sites for mollusks in the region. Land snails as a group have many species that are endemic (known only from a very small area) in the Southern Appalachians. To this date, we have recorded about 148 species of land snails in the park.

I could also go on to tell you about the amazing discovery of a new Phylum of life to the Park, the *Acanthocephala* (spiny-headed worms). The list of DLIA's accomplishments is long, since in the last 10 years cooperating scientists have discovered over 900 new species to science and nearly 6,500 new species to the Smokies, including:

- Over 42 new beetles to science
- Over 36 new butterflies and moths to science
- Over 41 new spiders to science
- Over 57 new fungi to science
- Over 23 new bees and associates to science



You helped find these species and more. All of this happens through support from many sources, including **YOU**. Please consider continuing your partnership with DLIA by sending another important gift.

Conference Registration Information Enclosed



GREAT SMOKY MOUNTAINS SALAMANDER BALL

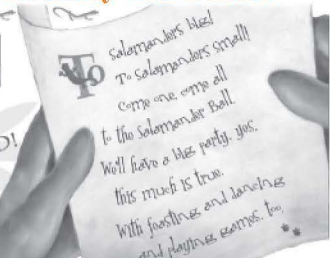
A Fantastic Night to Highlight Biodiversity and DLIA!

Discover Life in America
presents
the Great Smoky Mountains Salamander Ball!
A MASQUERADE BALL AND FUNDRAISER FOR DLIA!

When: Saturday, December 12, 2009
Time: 6:30 p.m. - 9:30 p.m. (Book signing at 5 p.m.)
Where: Ripley's® Aquarium of the Smokies
Traffic Light #5, 88 River Rd
Gatlinburg, TN 37738
Tickets: \$75 adults, kids 12 and under free!
(call DLIA at 865-430-4756)



YOU'RE INVITED!



All Images © Lisa Horstman 2009

ATBI QUARTERLY

Fall 2009

Notes from the Director



Headed to the Salamander Ball

The excitement builds for DLIA's biggest event of the year. This latest newsletter edition is dedicated to getting the word out about this important conference.

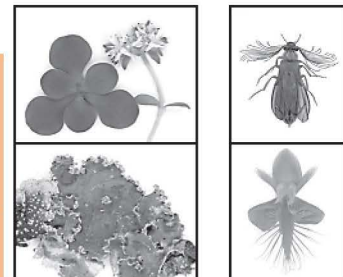
The Annual DLIA/ATBI Conference is a gathering of all our ATBI friends from across the world. This meeting, here in the Smokies, updates everyone on the latest discoveries and work over the past season, and in some cases many seasons.

- Each year, we attempt to make this conference bigger and better. We have a fantastic, and extremely "relevant to the times" topic as our theme, **Invasive Species**. Our keynote speaker, Dr. Dan Simberloff, a world-renowned expert in this field, currently heads up the Institute for Biological Invasions at the main campus of the University of Tennessee.
- We have another great Gatlinburg location for the conference at the River Terrace Resort. We expect participants from near and far, and will offer field trips, science talks, workshops, Saturday Educator Day, and our new culminating event, the Salamander Ball.
- We need your help with the planning and execution of this complex event. We need volunteers for set-up, daily registration, speaker hosts, event set-up, break-down and much more.
- Please donate items to our silent or live auction. We especially need artwork and overnight lodging packages that we can pair with unique experiences for people to bid on. Also, we need the bidders! So please join us.
- We are seeking financial help with conference sponsorships and our teacher scholarship fund. Of course, an easy and mutually beneficial way to help us is to attend the conference which helps support this great project.

Todd P. Witcher, Executive Director, Discover Life in America

Kevin FitzPatrick Receives NANPA Fellow Designation

DLIA Board Member, Kevin FitzPatrick, has been chosen to receive the designation of North American Nature Photography Association (NANPA) Fellow. This prestigious award is given to individuals who have made significant contributions to the professional nature photography industry over a period of at least twenty years. The award presentation will take place on Friday, February 19th, at the Annual Award Celebration, which is part of the Nature Photography Summit presented by NANPA. The 2010 Summit will be held February 16 – 21, in Reno, Nevada.



Database and Technology Update-Chuck Cooper

Again this December, DLIA will be providing a fascinating array of scientific talks and poster presentations at the annual Conference. These sessions will be partly based on the 2009 fieldwork of ATBI scientists. The subjects of these 2009 projects include water bears, water mites, true bugs, cliff-dwelling plants, wood beetles and clearwing moths, moth flies, plant viruses, stream microbes, micro-wasps and various forms of fungi.

This is the last year for the water bear project, and thus is of particular interest. Dr. Paul Bartels and his team of students from North Carolina's Warren Wilson College have been busy accumulating data on these miniature members of the Smokies' wet habitat communities. Dr. Bartels and assistants, will bring us their project finale and all of its captivating highlights during a presentation at the conference. With an estimated specimen collection numbering over 13,500 individuals, and over 8 years of research experience in the Smokies, **this talk is one that you will not want to miss!**



WISH LIST:

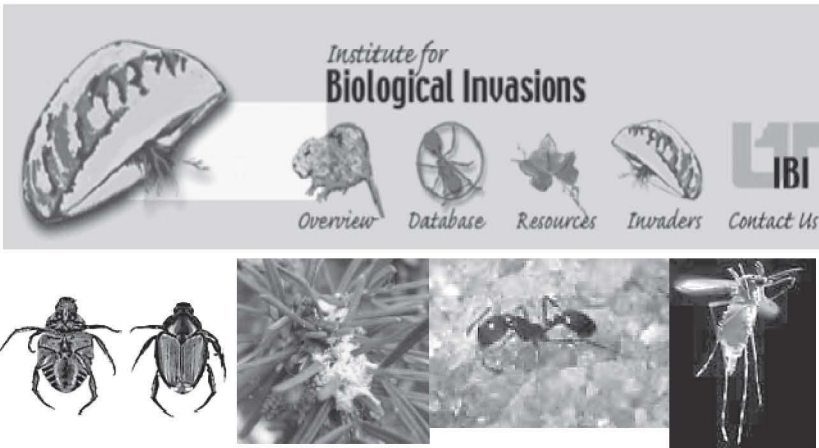
- *Microwave oven for office
- *Camera lens–
(Canon Digital model EOS40D)
- *Silent and Live auction items
- *Newer computers for the office
- *Refrigerator for office
- *TV/DVD Player for exhibits
- *PowerPoint projector

Conference Information and Registration

Dr. Dan Simberloff– 2009 Conference Keynote Address-Dec. 10, 2009 @ 5 p.m.

Daniel Simberloff received his A.B. from Harvard University and completed his PhD there (under E.O. Wilson) in 1969. He became the Nancy Gore Hunger Professor of Environmental Studies at the University of Tennessee in 1997. Dr. Simberloff is a fellow of the American Academy of Arts and Sciences and the American Association for the Advancement of Science. He is past president of the American Society of Naturalists and received the Eminent Ecologist Award of the Ecological Society of America in 2006. He is Editor-in-Chief of *Biological Invasions*, Associate Editor of the *Annual Review of Ecology, Evolution, and Systematics*, and serves on several other editorial boards. His 400+ publications center on ecology, biogeography, evolution, and conservation biology. Much of his research focuses on causes and consequences of biological invasions. His research projects are on insects, plants, birds, and mammals. At the University of Tennessee he directs the Institute for Biological Invasions (<http://invasions.bio.utk.edu/resources/index.html>).

On the Front Line of Species Conservation...



Twelve invasive species in the Smokies documented by Discover Life scientists!

- Fire ants (*Solenopsis invicta x richteri*)
- Pear thrips (*Taeniothrips inconsequens*)
- Hemlock woolly adelgid (*Adelges tsugae*)
- Klamath weed beetle (*Chrysolina quadrigemina*)
- Yellow fever mosquito (*Aedes aegypti*)
- Chinese jumping worm (*Amyntas agrestis*)
- Giant Asian resin bee (*Megachile sculpturalis*)
- European skipper (*Thymelicus lineola*)
- European yellow underwing (*Noctua pronuba*)

2009 DLIA/ATBI CONFERENCE REGISTRATION

Name: _____ Phone: _____

Address: _____

E-Mail: _____

Registration Choices (Please choose one):



- | | |
|--|--|
| Full Conference | (Early Bird-by Nov. 13=\$125)
(After Nov. 13=\$175) |
| Day Attendance
(Thursday, Friday or Saturday) | (Each day=\$75) |
| Student | (Early Bird-by Nov. 13=\$75)
(After Nov. 13=\$125) |
| Salamander Ball | Only (\$75)
As part of Conference (\$25) |

Please make check payable to: Discover Life in America
Att: ATBI Conference
1316 Cherokee Orchard Road
Gatlinburg, TN 37738

Credit Card information:

(Name on card) (Card #) (Expiration date) (Validation code)

**NOTE: Lodging is secured directly through the River Terrace Resort in Gatlinburg.
Call 1-800-251-2040 and mention ATBI.**

ATBI Quarterly

Discover Life in America

1316 Cherokee Orchard Road

Gatlinburg, TN 37738

865-430-4756

www.dlia.org



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DON'T MISS THE SALAMANDER BALL!

DLIA Volunteers-Heather MacCulloch



I hope everyone is doing well, and enjoying the beautiful onset of fall. We have been working very hard in planning this year's biggest event, the Annual Conference! As always, I want to thank all of you for being a part of DLIA and donating your time to our project/cause. And now, we could use your help again with pulling off the conference and our newest event, The Great Smoky Mountains Salamander Ball! I need volunteers for a number of tasks, and these will be divided into 2 to 4 hour increments:

- registration (all 3 days)
- hosting the DLIA booth (all 3 days)
- silent auction set-up
- closing silent auction (collecting items and checking people out)
- co-hosts for field trips

We also need help for the Salamander Ball, including:

- setting up the live auction items
- participating during the live auction (watching for bidders, holding items up, writing down who wins what)
- checking people out at the end of the auction
- supervising kids' activities and games
- decorations for the ball; promoting the ball
- selling tickets
- gathering silent and live auction items.



We will give a conference registration price break for those who donate at least 4 hours of volunteer time at the conference.

If you are able to help with any of these things in any way, please let me know. Plus, it should be a lot of fun! I hope to hear from you soon! Enjoy the special conference newsletter and send me an e-mail, heather@dlia.org or give me a call to discuss any of the above-listed volunteer opportunities! As always, thank you so much for your continued support!