

Discover Life in America, Inc.
4th Quarter, 2006
(October--December)
Jeanie Hilten



(10th Annual Conference and Workshops)

Highlights:

- The latest “Taxa Tally” is 829 species new to science plus 4,740 new records for the Park.
- DLIA Grant recipients from 2005 brought in \$ 147,024 from in-kind support, and \$447,200 in leveraged support.
- We feature a different plant or animal regularly on the DLIA website. Be sure to meet our “Species of the Month” under the highlights on the home page: <http://www.discoverlifeinamerica.org/index.shtml>
- The 10th DLIA/ATBI Annual Conference was successful in several ways: good reports, a productive meeting about biodiversity data interaction, an education workshop, generation of income, and an enjoyable celebration of ten years of science and education by DLIA, NPS, partners and volunteers. Businesses and organizations donated a total of \$2300 in sponsorships for the Conference. Attendees totaled: 128, including the two associated workshops.
- Donations for the “Bids for Biodiversity” Silent Auction are posted at http://www.discoverlifeinamerica.org/dlia/conference/donors_2006.shtml Thank you all! The auction brought in \$2,767.00!
- We invite you to fill out surveys to help us evaluate and improve the Annual Conference and its associated meetings. Please go to: <http://www.discoverlifeinamerica.org/dlia/conference/index.shtml> and click on the meetings you attended. Send your evaluations to Jeanie Hilten.
- There were 29 attendees at the NBII/SAIN sponsored “Biodiversity Data Interaction for an Alliance of ATBIs” meeting. Results of the meeting and further plans will soon be posted at: <http://www.atbiallyance.org>

- **Be sure to check out the Great Smoky Mountains National Park ATBI Database online:** www.atbidatabase.org There are now 228,819 records in it—thanks to the cooperative efforts of Michael Kunze, Chuck Cooper, and Chuck Parker.
- **The Image Database, also managed by Chuck Cooper, has 9,763 pictures, of all kinds.**
- **The DLIA Board met Saturday, December 9.** A difficult budget year for 2007 means cuts in programs and staff.
- **The George Wright Society publication “Forum” features ATBI activities.** Becky Nichols edited articles submitted by Park and DLIA staff as well as by ATBI scientists. The edition will soon be available online from <http://www.georgewright.org/>
- **Progress is being made toward an ATBI Alliance. See the draft organizational document at:** <http://www.atbialliance.org> and click on initiative draft.
- **The DLIA website receives about 1.6 million visits per year.** Biggest day was October 23 with 1,100 visits. There are now 4,000 pages on the DLIA site.
- **At the three ATBI houses, DLIA hosted researchers and volunteers for a total of 975 person/nights for 2006.** DLIA pays rent to GSMNP for the houses and also pays the phone/internet, and utilities. We ask for donations to help with these expenses.
- **The ATBI Quarterly is mailed to over 3,200 people, plus it is available online at** <http://www.dlia.org/atbi/quarterly.shtml> Due to budget constraints in 2007, hard copies will not be printed.

Progress in Science:

DLIA Grant recipients for 2006 presented their preliminary reports at the ATBI Conference. Final reports and data are due March 1, 2007.

The most current taxa tally is 829 species new to science plus 4,740 new records for the Park. See: http://www.discoverlifeinamerica.org/atbi/new_science/discoveries.shtml for the table that is posted on the website and updated periodically.

25 Science and Education presentations were given at the Annual Conference, plus 3 featured speakers. The talks highlighted the wide variety of biodiversity research conducted for Great Smoky Mountains National Park and other reserves. Some notes from the presentations:

- NPS’s Mike Soukup emphasized that the Organic Act of 1916 implies the protection of biodiversity, and, as Thomas Jefferson directed Lewis and Clark, to ensure that species be documented, so as not to be lost. The natural resource challenge for the next 25 years needs “big ideas” such as the ATBI to keep the Parks “unimpaired” for future generations. National Parks are a cornerstone for biodiversity protection and the ATBIs support that. Looking towards the centennial of NPS, we are in a long term struggle to decide the fate of public lands. We need to keep the Parks unimpaired, as required by the 1916 Organic Act. “Diminished biodiversity and loss of ecological integrity does not equal ‘unimpaired’.” Mike called for the training of a new generation of park leaders, and connecting every child who graduates in 2016 with our National Parks. “The Smokies level of achievement is unmatched...the ATBI is a world class achievement.”
- NPCA Director Tom Kiernan spoke highly of our ATBI, as he does when he travels across the country. People always are enthusiastic and want to help. The Centennial Challenge for National Parks will be an opportunity for ATBIs to become a “signature project to dramatically ramp up ATBIs and the proven concept from the Smokies up to scale.”
- Tennessee Department of Conservation’s Paul Sloan thanked the Smokies ATBI for helping get the TN State Park’s inventory going. He deeply believes in the ambitious, “audacious” project. There are now 34 TN State Parks beginning ATBIs. These biodiversity programs give a connection to the family of life, first steps to restoring a sustainable balance. “Educate, educate—or we do not have a chance.”

- DLIA's Peter White encouraged us, as we meet at the edge of this tremendous National Park, to find the knowledge to protect "the wild life". "We are at the door of a vast library."
- GSMNP's Keith Langdon encouraged an array of ATBI involvement working seamlessly and cooperatively across boundaries (state, federal, local) in order to work on issues that are of concern to many reserves. Steve Mather, early Director of NPS, also helped get state parks established.
- GSMNP Superintendent Dale Ditmanson commended the wonderful people in communities surrounding the Park who care about its protection and thanked the participants in the ATBI. He looked ahead to April, 2007 for the dedication of the new Science Center.
- Charles Staines' water beetle work has produced 114 species, up from 26 in 2003. Working with Charles Wilder, he has written 110 species pages for the DLIA website.
- Colin Favret continues the documentation of aphids in the Park, and their complex life cycles. There may be as many as 630 species of aphids in the Smokies. There are many discoveries to be made.
- Andrew Sheldon reported on a possible uphill shift in populations of some species of stoneflies. With climate change, this may be significant, and since this is a park of streams, looking for the stoneflies is a way of looking for indicators of environmental change.
- Paul Super reported on birds as "habitats" for other organisms—parasites. There are 246 GSMNP bird species. With mist netting, Paul and crew targeted 95 species, which included 29 families and 8 orders. Many new Park records of parasites (feather mites), and perhaps new species, have been found.
- Adriean Mayor and Jeanie Hilten reviewed the preliminary results from "Karst Quest", an investigation of the limestone areas and cave of the Park. In just one area, over 58 species of snails were found. In addition, there were possible sightings of a Tennessee blind cave salamander and a gray bat. Many interesting arthropods and primitive insects were found in debris samples.
- Paul Bartels and Sheree Ferrell have been sorting through tardigrades and have "no more in the freezer!" They have discovered 70 new park records and 14+ new species.
- Andrea Radwell and Ian Smith's work on water mites has yielded both new records for the Park and new species to science. At least 26 genera were found from the Oconoluftee River. Scientists also led a "Wading for Water Mites and More" educational workshop.
- Jim Renfro reported on the air quality issues in the Smokies. Acid deposition is highest of any National Park. This region is still in "non-attainment" for ozone, but recently it has begun to come down. High amounts of mercury are coming in, and the problem is the conversion to methyl mercury. Sources are coal-fired plants. Smokies has the worst haze in the U.S. Monitoring, research, and education will help reduce these problems.
- Pat Cox has conducted, with volunteers and students, 6 years of Fern Forays, mapping the ferns along Park trails. 122 miles have been mapped on 60 trails, with over 230 miles walked, 37 species encountered, in 19 areas of the Park. The most common fern is Christmas fern: 29,825 observations.

Progress in Education, Outreach, and Volunteer Action:

The DLIA Education Committee presented two awards at the Annual Conference: Scientist of the year for Biodiversity Education is Andrea Radwell. Biodiversity Educator of the Year is Marsh Sega.

The DLIA Education Committee also sponsored 16 teachers to attend the Conference and the Biodiversity Boxes Workshop. 37 people attended the workshop. There are now five Biodiversity Boxes and they will be further tested by teachers and then loaned to area schools.

Much ATBI activity has gone on though the GSMNP Resource Education Division—at Purchase Knob, at Oconoluftee, Sugarlands, and through the Parks as Classrooms programs. All use the concepts and methods of the ATBI to convey the story of the Smokies.

Chuck Cooper is managing our DLIA Volunteers database. Please send volunteer hours and activities to Chuck@dlia.org 2006 recorded volunteer hours are 4,806, but there are still folks out there who haven't reported their hours. (We know who you are, and we know where you live...)

To be invited to join the new DLIA Volunteers Yahoo! Group, please send a request to Jeanie@dlia.org This method of contacting volunteers about projects and events will be more efficient and allow everyone to stay in touch and keep email addresses current.

Deb and Paul Tappan have donated another computer to the DLIA office, after Heather's finally broke down. Thanks so much! All of DLIA's computers and several printers, plus the big scanner, have been donated by volunteers or obtained through grants.

Jeanie presented an ATBI program for the Park's "Experience Your Smokies" Program at Tremont, November 14. Heather MacCulloch attended the Education Committee meeting that day.

The Education section of the DLIA website is growing. Check out the offerings at <http://www.discoverlifeinamerica.org/dlia/education/index.shtml> and feel free to contact us with suggestions.

Jason Love of Great Smoky Mountains Institute at Tremont and Jeanie Hilten of DLIA have sent a preliminary letter to Alcoa Foundation to request at two year ATBI partnership grant.

Progress in Information Technology & Communications:

A special workshop funded by NBI/SAIN was held December 4-5, 2006, "Biodiversity Data Interaction for an Alliance of ATBIs". There were 29 attendees, and several project teams were established to continue the work.

Be sure to visit the "Beta" version of the Smokies ATBI Database, on-line at:

<http://www.atbidatabase.org>

Sensitive records have been edited by NPS. Thanks to Tremont, to the University of Tennessee, and to DLIA and NPS staff for making this possible. Please send your comments to Chuck Cooper, Chuck@dlia.org or 865-430-4756.



Visits to the DLIA website are increasing—1.6 million per year. Webmaster Charles Wilder notes: There are now nearly 4,000 web pages. The top three areas visited were the birds (13%), mammals (10%), and reptiles (4%). The trend for visits continues to follow the academic year. Google (45%) is still by far the leading referring domain. Likewise Microsoft Internet Explorer (82%) continues to be the leading browser used by visitors.

Chuck Cooper has now cataloged 9,763 images in the DLIA image database. These include digital pictures, scanned slides, high resolution scans, artwork, video, of a great variety of ATBI people, creatures, and activities. Metadata is being acquired and included in the database.

Remember that the *ATBI Quarterly* is available online and in color at <http://www.dlia.org/atbi/press/quarterly.html> Go to this page to subscribe to be notified when a new Quarterly is available. **Deadline for submissions for the Winter Quarterly is January 20! Contact Jeanie or Ruthanne Mitchell, ruthanneandcwm@comcast.net**

For “What’s New on the Web” see:

http://www.discoverlifeinamerica.org/dlia/whats_new_web.shtml

The ATBI desktop database is now available for ATBI researchers to download from the DLIA website at: http://www.discoverlifeinamerica.org/atbi/science/desktop_database/index.shtml

Or, it can be mailed on a CD. There are other ATBI data entry formats available for Mac users. Contact Chuck Cooper at the DLIA office, Chuck@dlia.org

Great Smoky Mountains Association’s website now features an ATBI “critter of the week”. See: <http://www.smokiesstore.org/page.htm?PG=critter%20of%20the%20w> Thanks to Carolyn Jourdan, GSMA webmaster.

Development/Marketing/Fundraising:

Individual monetary donations to DLIA from January—December, 2006 amounted to: over \$10,000! Thank you, DLIA and ATBI supporters! To donate, go to www.dlia.org and click on “Support”. We welcome all kinds of contributions, and remember that you can also sponsor a species in honor of someone! There is also a “wish list” for items that we need.

The Annual Appeal was mailed to 6,000 Great Smoky Mountains Association members and to 3,300 ATBI Quarterly newsletter subscribers. It is also on the DLIA website, under “Support”.

The “Bids for Biodiversity” Silent Auction brought in \$2,767.00 this year. There were many donations from businesses, organizations, universities and individuals for this fun event held during the Annual Conference.

Thanks to our sponsors of the 10th DLIA/ATBI Conference. They are posted at <http://www.discoverlifeinamerica.org/dlia/conference/index.shtml>

Be sure to support the Friends of the Smokies! They are another major contributor to ATBI activities and Discover Life in America. See: <http://www.friendsofthesmokies.org/>

Products for sale on the DLIA and GSM Association (www.smokiesstore.org) websites include T-shirts, pictures, books, the firefly plush toy, and biodiversity wristbands.

DLIA will be working on the second Alcoa Foundation Grant we have received: “ATBI Connections”. The \$10,000 will support college interns and teachers connecting with ATBI scientists and projects in the coming research season.

The Knoxville Garden Club contributed \$300 to DLIA, from a door prize of a watercolor painting by John Richardson, Jeanie’s father. Jeanie Hilten and John Richardson, Jr. donated the painting for the event.

Contact Steve Bohleber, DLIA Development and Marketing Committee, Steve@bohleberlaw.com, if you have ideas for ways to fund ATBI programs and operations.

Finances/Budget:

For details about the 2007 DLIA budget, contact Treasurer David Scanlon, jltlhs@yahoo.com

Other sources of DLIA income include individual donations, grants from Alcoa Foundation and NBII/SAIN, housing donations, the Annual Conference, and sales of promotional items.

The quarterly financial statements of DLIA are produced by Millstone Accounting. These reports are kept by David Scanlon, the DLIA Executive Committee, and the DLIA office.

Administrative Notes, Planning, and Upcoming Events:

Jeanie Hilten will be leaving her position with DLIA on January 26. She expresses her heart-felt gratitude and appreciation to the scientists, staff, volunteers, teachers, students, and all the known and unknown creatures of Great Smoky Mountains National Park.

DLIA Board member Jim Lowe participated in the CPR and First Aid training Thursday, December 14 at Tremont. Instructor was Wanda DeWaard, and thanks to Bob Wightman for providing the materials and equipment for the course.

Jeanie Hilten conducted performance appraisals in November with DLIA staff. The format was based upon the evaluations used by Great Smoky Mountains Institute and Great Smoky Mountains Association.

The 2007 DLIA Budget is reduced, resulting in cutbacks to staff and programs. We hope that all involved with the ATBI will be patient as we continue to try to do as much as we can with limited resources. To donate, contact the DLIA office or: <http://www.discoverlifeinamerica.org/dlia/funding/index.shtml>

DLIA Wish List:

- "Automontage" software for microscope photography
- 17" or 19" computer monitor
- LCD projector (for slide shows/presentations)
- Portable screen (for slide shows/presentations)
- Hand lenses
- Microscope
- "Write in the Rain" notebooks and pens
- Daypacks
- Items for the ATBI houses: washing machine, utensils, appliances, twin beds, linens and towels, folding chairs and tables
- Field guides
- Office furniture
- Bookshelves

DLIA and Partners Calendar of Events 2007

January 10, 2007: Requests for proposals for 2007 DLIA Grant program. To find out more, go to: <http://www.discoverlifeinamerica.org/dlia/grants/index.shtml> and contact John Morse, jmorse@clemsun.edu.

February 15, 2007: DLIA Grant proposals due to John Morse.

March 1, 2007: Grant reports and data for 2006 DLIA grants are due.

April 1, 2007: Grant awards are given for 2007 ATBI research.

Winter, 2007: Programs are offered at Great Smoky Mountains Institute at Tremont. See http://www.gsmit.org/quicklinks_seven.html.

Mark these events on your calendar and stay tuned for more details and other programs—in particular Volunteer Training, educational workshops, and bio-quests. See the website at www.discoverlifeinamerica.org or www.dlia.org For more information, to add an event to our calendar, to learn about DLIA's volunteer "project teams", and to sign up for activities, contact the Discover Life in America office, 865-430-4752

We appreciate everyone's help, ideas, and suggestions. If you have any questions or concerns, please don't hesitate to contact the DLIA Staff. Thank you!

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