



Taxon Times

November 2004

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Website

www.dickinson.edu/prorg/pabs/pabs_main.htm

CAST YOUR VOTE on Status Determinations & Peripheral Species

PABS President Hassinger requests input on the Peripheral Species Challenge

This edition's President's Message (below) introduces the challenge of deciding how Pennsylvania will approach status determinations for peripheral species and solicits responses.

COMMITTEE CHAIRS - Please review the "To:" list of recipients on the cover e-mail and forward this newsletter to committee and subcommittee members whose names do not appear.

Contact Ed at cbutchkosk@state.pa.us Use Taxon Times as subject. Thanks, Ed

Steering Committee Meeting held 12 August 2004

at the Olewine Nature Center, Harrisburg

The meeting began at 9:30 AM with a welcome, introductions around the table, and brief officers' reports. To save time—and to assist the secretary and the newsletter editor—all committee chairs and agency representatives had been asked to provide brief written reports. All presenters had been asked to limit their time to no more than 10 minutes. John Rawlins and guest Dr. James W. Fetzner demonstrated a prototype on-line database for the Catalog of Pennsylvania Biodiversity. The meeting adjourned at ~3:30 PM.

OFFICERS' REPORTS, in addition to the President's message (below)

Recording Secretary – Janet Wright - Minutes for the January 2004 Steering Committee had been distributed electronically in March. There were two amendments but no substantive changes. The January minutes were approved as revised.

Secretary/Treasurer – Jim Stimmel distributed and reviewed a report on account balances. There was no activity in the checking account or sub-accounts between the January and August 2004 meetings. He is awaiting the final bill for *Windows on the Wild*.

President's Message

from Jerry D. Hassinger

President Hassinger saved his remarks for the end of the day except to note at the beginning of the meeting that when the IUCN and USFWS refer to "downlisting" they mean a species has been reclassified to a less critical status (i.e. from endangered to threatened). Conversely, "uplisting" means reclassification to more critical status (i.e. from threatened to endangered). He asked that everyone keep those definitions in mind during discussions of species status.

Jerry's message appears in its usual place to avoid reformatting the newsletter.

A Brief Overview of the Peripheral Species Challenge

Pennsylvania is a transition state. Numerous plants and animals have the limits of their distribution in Pennsylvania. Consequently there are numerous species with small, peripheral populations. Distribution limits, however, are not the only cause of a peripheral distribution.

There are at least four types of peripheral distributions:

1. Limits of natural distribution extend into Pennsylvania - common in adjacent state(s). There is the potential for rescue effect.
2. Limits of natural distribution extend into Pennsylvania - of special concern in adjacent state(s). There is little if any potential for rescue effect.
3. A previously non-peripheral species has declined to a peripheral distribution.
4. A species is expanding its range into Pennsylvania; a temporary peripheral.

There are numerous biological arguments that have been used to qualify types 1, 2 and 3 species for "Species of Special Concern" status. Unfortunately, in a transition state this results in so many species being listed that the management priority process is diluted. This has resulted in counter-arguments and in one state, Oregon, Type 1 species, however rare, do not qualify for either endangered or threatened species status: "Peripheral species which barely reach the state [Oregon] are not considered for listing in the critical [E&T] category unless listed as threatened, endangered, sensitive or of special concern in an adjoining state or states. Species that reached the state through artificial means are not included. Priority is given to those which are believed to have been historically present."

I propose that Types 2 & 3 species should be eligible for endangered or threatened species status in Pennsylvania. For Type 1 and 4 species, we could evolve guidelines similar to Oregon. Type 1 & 4 peripheral species would still be eligible for a status determination, but not at the level of "Special Concern Species."

The controversy will be with Type 1 species, however rare in the state - especially vascular plants.

Anyone receiving Taxon Times, please respond to the "Peripheral Species Problem" in whatever fashion you choose. Contact jdhas@pa.net If I do not hear from you, I'll assume you agree that Pennsylvania needs to develop (or adopt) guidelines to address the peripheral species challenge. I'll proceed accordingly.

JD#

TECHNICAL COMMITTEE REPORTS

Vascular Plants - Carol Loeffler - The Vascular Plant Technical Committee held its spring meeting and its annual Rare Plant Forum on 6 March 2004 at the Olewine Nature Center in Harrisburg. The Rare Plant Forum is an event open to the public, to invite input and to educate. Steve Grund of the Western Pennsylvania Conservancy has done excellent work organizing and running the Rare Plant Forum for the last several years. Forty-five members and guests attended the March meeting (a record).

Plant Species of Special Concern (POSCIP) changes - Normally the Rare Plant Forum is devoted almost entirely to discussing changes to the POSCIP list; but we had only five proposals to consider at this meeting. This was partly because of a push at previous meetings to get plants considered before a regulations update and partly because we are undergoing a review of our criteria for listing species and we were inclined not to submit proposals until the review was completed. Indeed, among the five proposals we tabled two for later consideration. The three that were discussed were:

- 1) *Phragmites australis*, native taxon. Most *P. australis* that we see are an exotic, invasive strain, but recent studies and observations have confirmed the existence of a native strain, which is extremely rare in the state. We agreed that this taxon should be listed as Pennsylvania Endangered (PE), but as *Phragmites* sp. I, in recognition of uncertainties concerning its nomenclatural status.
- 2) *Chamaecyparis thyoides*, Atlantic white cedar. This species is currently listed as Pennsylvania Extirpated (PX) because there are no natural populations in Pennsylvania. There is a naturalized population in western Pennsylvania, far from any native populations. We discussed the situation and decided that we could not recommend changing the species' status to PE unless one or more native populations were found in the state.
- 3) *Baccharis halmifolia*, groundsel tree. This shrub is currently listed as Pennsylvania Rare. We decided that because of uncertainties about its native status and its abundance, it should be listed as Tentatively Undetermined (TU) with a PABS status of UENF (uncertain but likely endangered, with questions about its native status and a need for fieldwork to determine population numbers). Characterizing plants of undetermined status by our multi-letter system helps us to keep track of the research needs for each species.

Announcements and updates included a briefing by Chris Firestone on various initiatives to counter invasive species, such as the establishment of a new invasive species council and an announcement by Bill Olson of plans for a New Jersey state flora and atlas, updates on collecting permit requirements for rare plant research, etc.

Presentations, following the announcements:

- Discussion of the future of the Wild Resource Conservation Program by Ron Stanley
- Update from Autumn Sabo on new guidelines and minimum requirements for monitoring of plant communities in mitigation wetlands (with the objective of determining if mitigation worked)
- Update from Chris Firestone on the current regulatory update of the POSCIP list (584 plant taxa have been listed; the revisions being put through this year would delist 79 taxa and add 156, bringing the total to 661),
- Discussion of the status of *Bidens discordea* (small beggars-ticks, a rare plant easily confused with *Bidens frondosa*) in eastern Pennsylvania by Jennifer Petzold, an intern at the Morris Arboretum
- Discussion of the role of botanists in County Heritage Inventories, by Jeff Wagner of the Western Pennsylvania Conservancy
- A report on PennDOT's use of native plants for mitigation, by Deanna Witman
- An update by Eric Burkhart on his research on the status and use of ginseng in Pennsylvania
- A report from Steve Grund on his research on glacial lake flora in northwestern Pennsylvania

Herbarium preservation - At the spring meeting, Vascular Plant Technical Committee members signed a letter drafted by Ann Rhoads to

encourage Penn State to support its herbarium. This letter was sent and received with appreciation by Dr. Eva Pell, Vice President for Research at Penn State.

Activities being pursued this year - We are collecting information on native alternatives to the exotic plants frequently planted by government agencies, and we are collecting information on the planting practices of specific agencies, to try to determine the extent of the problem of excessive planting of exotics. A subcommittee is drafting recommendations for monitoring plant species in areas affected by longwall mining. A second subcommittee is proposing and debating changes to our criteria for listing POSCIP species. We will be considering all of these issues in our full committee meeting this fall.

Invertebrate Technical Committee - Jim Stimmel for Greg Hoover - No formal report had been prepared, although some subcommittee meetings had taken place. The lack of a report did not hamper discussion. Jim noted that this was the "year of the cicada." John Rawlins indicated that many surveys are underway in the invert field. K. C. Kim commented on the slow investigation and description process for invertebrates, a result of large taxa and huge diversity. Regarding a draft cooperative agreement with the PFBC, John Arway said that status listings will have to come from the technical committees and that he expects to be communicating with the committees more frequently than he has in the past. K. C. has found that committees are more likely to be active if government interacts with them. John Rawlins commented that the SWG project on invertebrates will define areas where further investigation is needed; this should act as a catalyst for future discussion and action. Dan Bogar, Odonata subcommittee chair, reported a new state record collected in York County; the specimen will go to the Carnegie Museum. Doug Gross, in his new role as a PGC biologist, was "yelled at" by a "butterfly person" about damage the PGC does to butterfly habitat on state game lands. Doug commented that butterfly people seem to be reactive rather than proactive and asked if there is a Lepidoptera subcommittee. John Rawlins responded that to this point he was the subcommittee. Jerry Hassinger suggested that technical committees meet with state agencies about habitat management for species within the agency's purview. Lisa Williams pointed out the need to meet with the right part of each agency. Using the PGC as an example, she explained that a technical committee would need to meet with the Bureau of Land Management rather than the Bureau of Wildlife Management, which is primarily a research unit.

Fishes Technical Committee - Rob Criswell - Members of the FTC were involved in the following:

- Developed the Pennsylvania Fishes of Special Concern Priority List as part of the State Wildlife Grant (SWG) program's conservation plan component.
- Participated in a rare fishes survey of Pool 8 in the Allegheny River where a permit application for gravel dredging is extant. Threatened fishes were detected during this survey.
- Confirmed the existence of threatened bluebreast and Tippecanoe darters in Allegheny County.
- Began a pilot study on genetic diversity of headwater stream communities.
- Completed field work and began final report preparation for the paddlefish status and movement project in the Ohio River drainage.
- Neared completion of the SWG-funded survey of Monongahela River tributaries. Good news: found three rare fishes – black buffalo and river carpsucker (both unlisted and recently returned to the state) and the endangered silver chub. Bad news: almost all the Fayette County tributaries are impacted by mine drainage or sewage.
- Confirmed a small population of the threatened southern redbelly dace in Washington County.
- Detected an introduced population of brook sticklebacks in the Susquehanna River drainage near Berwick. They are native to the Ohio River and Lake Erie drainages in Pennsylvania.
- Began a fish inventory of the Upper Delaware Scenic River and Delaware Water Gap Recreation Area.
- Began to identify sampling sites for a SWG-funded survey for rare fishes and herps in southeastern Pennsylvania.
- Surveyed the Conowingo Pool for the presence of the Susquehanna River population of the logperch, which is being elevated to specific status. It is still extant there.

Bad news: PFBC personnel confirmed the existence of exotic northern snakeheads in Meadow Lake, near the confluence of the Schuylkill River and Delaware River in Philadelphia. At least six have been captured to date, and it is likely that they are no longer confined to the lake.

Lichens & Bryophytes – Christine Manville & Jack Stabley – Jack Stabley, Jr. has agreed to serve as co-chair of the technical committee. He became a member of the committee last fall. Jack's association with the City of Harrisburg and his enthusiasm for lichen study is a welcome addition. Although Christine Manville will continue as co-chair, she is delighted and relieved that after many years someone else is willing to share in organizing field work, study and identification sessions, and in keeping the technical committee on track. Jack will be responsible for keeping track of lichen literature, data, and research. Christine will continue similar work with bryophyte studies, and will emphasize taxonomic revisions, distribution, and mapping.

The first committee meeting since Jack's involvement was held 3 July. Eight of 14 committee members were present. Various projects are underway and the committee has been approached by USGS about a study of lichens and heavy metal uptake.

Jerry Hassinger and Christine previewed the Ned Smith Natural Area in advance of an October field excursion to be led by Jack Stabley. In July, Jack facilitated an excursion to the de Hart watershed maintained by the City of Harrisburg. Work focused on a site for *Peltigera hy-*

pogymnia (previously *Hypogymnia venosa*). This aquatic lichen, an indicator of pristine water quality, was previously reported from watersheds in Berks County by Susan Munch. Jack is in correspondence with Thomas Nash at the University of Arizona, whose students are studying this lichen.

The State Museum has agreed to maintain samples of bryophytes and lichens as a part of the herbarium. Jack will continue exploring this with Christine's assistance.

Plans for the coming year include:

- Sponsoring monthly or quarterly field excursions and identification workshops, probably in the Harrisburg area
- Revising Bob Hill's general map of lichens to conform to the specimen-based maps for hepatics
- Revising the hepatic database to include recent collections and revisions
- Finish compiling the moss database and map taxa in similar form to that of hepatics, segregating taxa in view of current taxonomic changes

Reptile & Amphibian Technical Committee - Tim Maret -

The committee met in March 2004 at the Olewine Nature Center in Harrisburg. Actions include creating an updated list of species of conservation concern and inviting four new members to join the committee in order to better represent all areas and constituencies. Ben Jellen of the Western Pennsylvania Conservancy gave a presentation on his ongoing research on the Massasauga rattlesnake. In order to more efficiently handle various issues and concerns, subcommittees were formed to:

- Examine the feasibility of starting an Important Herptile Area Project
- Develop a set of consistent and defensible criteria for making recommendations to the PFBC on the listing of herptile species as endangered or threatened
- Develop means of public outreach, particularly to educators
- Create a policy statement on translocation and release of captive specimens

These subcommittees were to report back to the technical committee at the fall meeting on 1 October 2004.

This spring, the committee became involved in the permitting process for a rattlesnake hunt in Shippensburg. A letter was sent to the PFBC recommending that a hunt permit not be granted because of the sensitive nature of the snake populations on South Mountain. Although a permit was eventually granted, restrictions in the permit prohibited any snake collection on South Mountain.

Many members of the committee will be writing species accounts for the Vertebrates of Special Concern in Pennsylvania project.

A high priority of the committee has been the need for inventory and monitoring efforts aimed at little-known and at-risk amphibian and reptile species in Pennsylvania. A subcommittee began meeting last fall to prioritize needs and attempt to secure funds for survey efforts. Two grant proposals (WRCP and SWG) were submitted this summer to help fund inventory efforts.

Box Score Changes – Time to add the red-eared slider, *Trachemys scripta elegans*, as a non-native resident. It's not going away.

Goals for 2005 – Priorities next year will include many of the same items we have been working on over the last year. Likely items include education and outreach, assessing at-risk species, developing an inventory/certification program for vernal ponds, and updating Pennsylvania endangered/threatened species.

Discussion following report - John Arway stated that he and Chris Urban need credible, defensible criteria when called upon to defend species listings. This applies to all committees that work with the PFBC. Committees also need to prioritize where they want money to go. Jerry Hassinger opined that criteria will be defensible if PABS uses the IUCN's already-accepted specific guidelines and standards reviewed and used by other scientists worldwide. Canada and Florida have standards based on the IUCN's. Sue Thompson pointed out that criteria are not universal for all taxa and that survey data is still necessary. Jerry responded that there are multiple options within the system he proposes and that regional guidelines could be developed. Rob Criswell commented that he has seen Florida's guidelines and he is not impressed. Rob also said it was ludicrous to apply the same numbers to all species.

Ornithology Technical Committee - Doug Gross & Bob Ross - The spring meeting was held on 30 April 2004 at State College, hosted by Margaret Brittingham. Another meeting will take place in the fall.

State Wildlife Grant Priority Bird Species - The OTC is acting as an advisory group to the PGC on the SWG priority species. The OTC

Recent & upcoming publications relative to the lichen flora of Pennsylvania

Dr. James Macklin of the Academy of Natural Sciences, Philadelphia, after noting during the Steering Committee meeting that the average age of lichen taxonomists in the U.S. is 78, went on to mention that a student working at the Academy was about to publish a paper on lichens. James C. Lendemer has a DCNR grant, three papers in review and one in press, in addition to one published in 2004. Here's the list:

2004 - Preliminary Notes on the Lichen Flora of Lehigh Gorge State Park, Pennsylvania, USA. Opuscula Philolichenum, 1: 1-8.

In press - Changes and Additions to the Checklist of North American Lichens. II. Mycotaxon, 90 (2).

In review - Contributions to the Lichen Flora of Pennsylvania:

- *A Checklist of the Lichens Collected During the 1st Howard Crum Workshop, Delaware Water Gap National Recreation Area.*
- *The Lichen Flora of the Diabase Region of Upper Bucks and Montgomery Counties.*
- *Preliminary Checklists of the Lichens of Nescopeck State Park, Ricketts Glen State Park, Tobyhanna State Park and Worlds End State Park.*

has taken a hybridized approach, blending reactive conservation by listing rare species on the Pennsylvania species of special concern list and a proactive strategy by listing species that act as umbrella or flagship species for typical Pennsylvania ecosystems (habitat types). The Partners In Flight continental priorities and objectives, including the Watch List, played an important role in selecting species. This includes some species for which the state has high conservation responsibility because of the high percentage of the total breeding population that is found in the state. The committee searched out appropriate representative species for the state's ecosystems (leave no habitat behind!) that it felt were more sensitive to habitat fragmentation or human disturbance. The list of the Birds of Conservation Concern is listed at the PGC website, including an explanation of the reasons for listing: <http://www.pgc.state.pa.us/pgc/cwp/view.asp?a=496&q=162144>

Double-crested Cormorant and Endangered Colonial-nesting Wading Birds - Since 1996 double-crested cormorants have nested on Wade Island in the Susquehanna River near Harrisburg, the first breeding records for this species in Pennsylvania. This species' breeding population has burgeoned in the Northeast over the past 25 years with impacts on many colonial water birds due to nest-site usurpation and nesting habitat alteration. The Wade Island population now threatens 2 Pennsylvania endangered (current status or proposed status) water birds, the great egret (*Ardea alba*) and black-crowned night heron (*Nycticorax nycticorax*), which now nest only on Wade Island (egret) or has its largest breeding colony there (night-heron). Numbers of great egret nests have been stable at Wade in recent years but those of the number and size of night-heron colonies have declined (fewer than 6 colonies statewide). The OTC and Pennsylvania Audubon have worked with the PGC to use breeding colony visual/auditory attraction (decoys) to lure egrets to neighbor islands of Wade. This spring 25 egret plastic models were placed in trees on an adjacent island with follow-up monitoring visits to both it and a control island. Observations will continue into next year. We have discussed the possible need for active control of cormorant nesting at Wade Island (now 40 pairs). Active control is controversial, with some OTC members concerned about the precedent this sets for non-game migratory species. However the objective of any such management action is solely to protect a real and imminent threat to the continued presence of two endangered species in Pennsylvania.

2nd Breeding Bird Atlas - The OTC is acting in an advisory capacity to the 2nd BBA project. Bob Mulvihill, an OTC member, is the Project Coordinator. The new Atlas began energetically in 2004. The Atlas, a high priority project for the PGC Wildlife Diversity Section, is yielding some new sites for species of special concern, but it is too early to make an analysis of the results. Volunteers are logging their data into the Atlas website. The OTC will rely on Atlas results to evaluate the species of special concern list.

Pennsylvania Important Bird Areas - OTC acts in advisory capacity to Pennsylvania Audubon's IBA program. Unfortunately, the Pennsylvania Audubon Conservation Director, Steve Hoffman, has left the state for a conservation position in Montana. Rob Blye also has left the Pennsylvania Audubon IBA program to return to environmental consulting. However, Pennsylvania Audubon continues the IBA program. Kim Van Fleet, IBA Biologist, conducted many point counts and other surveys in IBAs this summer. Volunteers continue to monitor IBA locations, combining this effort with the Atlas project and the PSO SAP data collection.

Bioblitz at Erie Bluffs (Coho Tract, Erie County) - Doug Gross represented OTC, PSO, and PGC at the bioblitz. Birders from across the state participated. The SAP inventory approach was combined with Atlas and bioblitz techniques for a quantitative, multi-project approach. The group's 80 species tally was unusually high for mid-July. New PGC biologist Tim Hoppe counted ~3,000 swallow nest holes on the lake bluffs, mostly bank swallow (this may be the largest colony in Pennsylvania). There also were many northern rough-winged swallows. The red-headed woodpeckers were spectacular and biologically significant members of the community. Erie is one of the few counties where they are found regularly. A young northern harrier was seen gliding over agricultural fields. Locally rare, vesper sparrows were singing near the campsite. The forest was host to several forest interior species including Acadian flycatcher, wood thrush, hooded warbler, Louisiana waterthrush, scarlet tanager, and mourning warbler (a local rarity). The Acadians were strongly associated with hemlocks. To cap things off, 2 young bald eagles were seen flying along the shoreline. (See Page 8 for additional bioblitz coverage.)

Chair of Committee - With his new employment with the Game Commission, Doug Gross felt that it was inappropriate to continue as chair of a committee that acts as an advisor to the PGC. The committee selected a new chair, Bob Ross, Ecologist at the U.S.G.S. Leestown Science Center, Wellsboro. Bob's e-mail address is rossr@usgs.gov.

Mammal Technical Committee - Janet Wright for Steve Ropski & Carolyn Mahan - The MTC met in March 2004 in conjunction with the Pennsylvania Chapter of The Wildlife Society meetings in Clarion, Pennsylvania. At that meeting, new co-chairs of the MTC were elected - Dr. Carolyn Mahan of Penn State Altoona and Dr. Steve Ropski of Gannon University. The major business of the MTC meeting was to discuss the Important Mammal Areas Project (IMAP) and the proposal to have the northern flying squirrel listed as an endangered species in the state. MTC completed the procedures for listing a mammal species for special status in the state; the northern flying squirrel was the test case. A change in species status form was completed by Dr. Michael Steele (Wilkes University), Dr. Carolyn Mahan, and Gregory Turner (PGC) and the proposed status change will be reviewed and decided on by the PGC Board of Commissioners this fall. Dr. Alicia Linzey has prepared initial management plans for several IMAP areas across the state. In addition, in July, a director of IMAP was hired.

The following is a 10 August 2004 press release from the Pennsylvania Federation of Sportsmen's Clubs:

The Important Mammal Areas Project (IMAP) is delighted to announce that Richard Whiteford from Downingtown, Chester County, has been hired as the project's first full-time director. The Pennsylvania IMAP, initiated in 2002 with funding from the Wildlife Conservation and Restoration Account (WCRA), seeks to ensure conservation of habitats that support rare mammals,

diverse mammal communities, unique populations of mammals, and large aggregations of certain mammal species, as well as sites that are important for educating the public about natural history of resident mammals.

"This marks the third phase of IMAP, and the Pennsylvania Federation of Sportsmen's Clubs (PFSC) and our educational arm, the Pennsylvania Wildlife Federation (PWF), are pleased to continue to be a part of it," said Melody Zullinger, PFSC Executive Director. "Identifying and designating 45 Important Mammal Areas in the first phase, mapping them in the second phase, and now continuing the process of producing and implementing conservation plans (that are 100% voluntary), and using this all to help educate the public on the importance of critical habitat, we hope will help lead to more appreciation of such and a reduction of lost habitat in the future."

Speaking about the importance of IMAP, Whiteford said, "Mammals are losing habitat through disturbance and destruction at an alarming rate." Each year Pennsylvania loses nearly 120,000 acres of natural land to industrial and residential development. Fragmentation of large habitat areas results in population imbalances, promotes diseases like rabies, and reduces habitat to prohibited hunting areas that retard balancing species populations, deer being a good example.

"It's a thrill to be in the driver's seat of a first of its kind project. I'm especially looking forward to working with the scientists on the Mammal Technical Committee and the other stakeholders involved with this project," Whiteford said.

Whiteford brings 16 years of conservation experience to the job, most recently working to help preserve remaining critical natural areas in Chester County as the Outreach Coordinator for the Highlands Coalition. He completed training in the Pennsylvania Forest Stewardship program, is a board member of the Pennsylvania Biodiversity Partnership, and is a noted environmental journalist.

IMAP is a pilot program that will be rolled out nationally once the Pennsylvania project is completed. This statewide project, the first of its kind in the world for mammals, was conceptualized by the Mammal Technical Committee of the Pennsylvania Biological Survey (PaBS) and is being implemented through partnerships with diverse groups, including the National Wildlife Federation and their PA affiliate (PA Federation of Sportsmen's Clubs/PA Wildlife Federation), the PA Game Commission, Carnegie Museum of Natural History, and the Mammal Technical Committee of the PA Biological Survey.

Protists & Fungi - John Plischke - So far this year, surveys have been conducted at over 20 locations. Fifty-six fungi species lists from past surveys can be viewed at http://www.wpamushroomclub.org/files/species_list.html. Until recently, creating species lists has been a very time consuming process. Now, work that took an hour can be done in 5 minutes thanks to a list-creation program developed by committee member Bob Lucas. Either a common or scientific name can be entered and the program will fill in the other name. Species names can be selected from a list. The program can also send results to the mycological recorder or anyone else that is desired. It can be viewed at <http://www.wpamushroomclub.org/files/lists/mushform.html>

Work is underway to hold a major, multi-day Northeast Mushroom Foray at Mont Alto, Pennsylvania, next year. The two Pennsylvania clubs and the New Jersey club will act as hosts. At least 160 people are expected to attend with several hundred species expected to be recorded. During an Eastern Pennsylvania Mushroom Club foray held there in July, over 30 species were added to their fungi species list. A major foray was scheduled for 18 September in western Pennsylvania. More than 200 people were expected to attend, including several nationally known mycologists. For more details contact the Western Pennsylvania Mushroom Club at <http://www.wpamushroomclub.org/index.html>

WORKING LUNCH

Comprehensive Wildlife Conservation Strategy—PABS Involvement and Technical Support Summary - Lisa Williams

Background - Ongoing federal appropriations have provided in excess of \$7 million in state fish and wildlife funding for the Pennsylvania Game Commission and Fish and Boat Commission through the State Wildlife Grants Program (SWG). To date, SWG funding has been used for a variety of fish and wildlife projects that further the conservation of species of special concern in the Commonwealth. A significant requirement of the SWG program is that each state must produce a Comprehensive Wildlife Conservation Strategy (CWCS) and submit it for USFWS Federal Aid approval by October 2005.

PABS Involvement - PABS Technical Committees have been extensively involved in the development of the CWCS. Technical committees have identified CWCS-priority species and their associated habitats. The Game Commission is now pursuing contracts with technical experts and technical committee members, to serve as Taxa Coordinators in producing detailed species assessments for the 187 species identified as CWCS-priority species.

Completed Steps -

- Expert-opinion process initiated with PABS for determining species of greatest conservation need initiated (January 2004)
- Facilitated meeting of conservation stakeholders (including PABS representatives) to draft Strategy vision, purpose, issues, goals (March 2004)

- Terrestrial vertebrate species assessments contracted with Wilkes University.
- Taxa Coordinators:
 - Mammals – Mike Steele and Joseph Merritt (MTC)
 - Birds – Margaret Brittingham (OTC)
 - Reptiles/Amphibians – Tim Maret (RATC)
 - Fish – Jay Stauffer (FTC)
- Invertebrate status assessments and species accounts contracted with John Rawlins, Carnegie Museum of Natural History
- Species of greatest conservation need identified by PABS (April-May 2004)
- SWG/CWCS web site developed by PGC (June 2004): <http://www.pgc.state.pa.us/pgc/cwp/browse.asp?a=496&bc=0&c=70008>

Lisa distributed a 5-page set of instructions for Taxa Coordinators to illustrate the required elements for species assessments, which include:

1. Identify distribution (if known)
2. Identify abundance (if known)
3. Identify problems, issues or concerns for each species group or species
4. Identify location and condition of key or important habitat areas
5. Identify threats or concerns associated with each key habitat
6. Identify research and inventory needs and conservation and management needs, along with targets and measures
 - a. Identify existing plans most relevant to species or their affected habitats with emphasis on plans with substantive conservation strategies
 - b. Extract conservation objectives from existing plans whenever appropriate and/or
 - c. Generate new actions, if not available (or too dated) in existing plans
7. Develop specific conservation actions to meet objectives for:
 - a. Research and inventory needs
 - b. Conservation and management
8. Propose plan and time frames for monitoring species and their habitats

Four of the 5 pages were a template to guide coordinators in proposing objectives, targets, measures, issues, and specific conservation actions for featured species. The template requires:

Species name (common and scientific)	Research and survey priorities (immediate and longer-term)
Species photograph/illustration/description	Conservation, management and implementation priorities
Life history	Monitoring and adaptive management protocol
Distribution and abundance	Coordination (with public, private, and non-profit stakeholders)
Location and condition of key habitats	Bibliography (references and regional, state, and/or global plans used to identify strategies)
Threats assessment	

AGENCY REPORTS

DCNR - *Pat Pingle for Sally Just - Action Plan* - DCNR's Blueprint for Action identifies nine key areas for the Department's focus:

Conservation science and biodiversity	Land conservation
Counties, cities and towns	Management of our lands
Economic development: tourism and forest products	Outdoor recreation
Environmental education and stewardship	Private forestland stewardship
Greenways and trails	

The action plan merged a year's worth of information contribution, via staff and stakeholders, into themes to improve the stewardship of State Parks and Forests, promote statewide land conservation, create outdoor experiences for visitors, and to build and maintain sustainable and attractive communities. Within these four themes, a further breakdown of each was recognized as follows:

Improve Stewardship of State Parks and Forests

- Manage our lands based on the conservation of healthy ecosystems
- Expand outdoor recreation and outdoor learning opportunities
- Support economic development through the wise use of natural resources
- Improve the agency's ability to make resource management decisions
- Continue to acquire lands that protect and enhance existing state parks and forest

Promote Statewide Land Conservation

- Help communities manage growth and reduce the loss of open space
- Provide information and educational programs to help protect important ecological lands, wildlife habitat, geologic features, and recreational lands
- Provide educational, technical and financial assistance to protect and sustain privately owned working forests
- Work with private landowners and others to encourage responsible stewardship on lands with significant conservation value

Build and Maintain Sustainable and Attractive Communities

- Empower county governments and regional planning entities to conserve natural and heritage resources and promote recreational activities through cooperative planning
- Advance projects and planning that demonstrate sustainable growth and green infrastructure network development and conservation
- Make reinvestment in our existing infrastructure a priority by targeting DCNR programs and leveraging other state and federal agency program activity

Create Outdoor Experiences for Citizens and Visitors

- Increase citizens' and visitors' ability to experience the outdoors
- Increase citizens' awareness and knowledge of natural resources to inform their decisions on important conservation issues and create inspiring experiences in the outdoors
- Bring our stewardship expertise and educational programs to urban and suburban communities

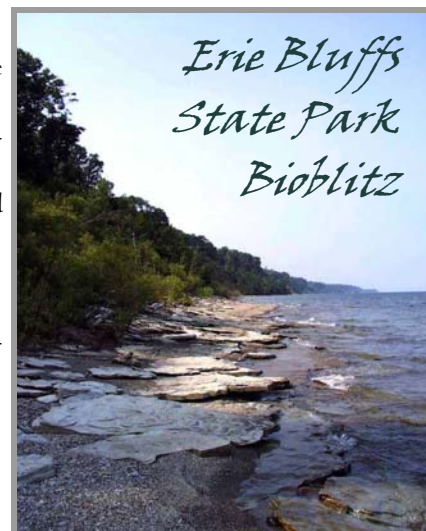
Pennsylvania Natural Heritage Program (PNHP) - Environmental Review and Pre-Project Planning

System - In cooperation with a large, diverse advisory committee, the Heritage Program has developed a GIS based web program to use PNDI data in the pre-project planning stage and a more sophisticated ability to analyze proposed projects for conflicts with species of special concern in the environmental review process. The web program should reduce the percentage of projects that are flagged by the system as presenting a potential conflict with special concern resources, allow better land use decisions, minimize permitting conflicts and delays, streamline the permitting process and potentially provide savings to the regulated community. We are currently in the final stages of testing on the system before public release. PNHP Conservation Planning Tool - The Heritage Program presented a conceptual model to the PNHP advisory committee in April to solicit input and ideas on developing a statewide, GIS based system to guide land use planning in Pennsylvania and promote conservation of biodiversity

Wild Resource Conservation Program - Grant Applications - Seventy-five applications were received by the deadline of June 30. Twelve of the applications have some aspect of wildlife habitat restoration, 15 are related to wildlife education or other aspects of outreach, 42 are related to determining the status of habitat or particular groups of taxa and six are related to the County-Inventory approach to biodiversity status. A public hearing on the applications will be held in Middletown on 18 August. Nearly 200 independent reviews will be completed by early September and final project selections will be made at the 20 October meeting of the WRCF Board.

Pennsylvania Game Commission - Dan Brauning - *Personnel* - The Pennsylvania Game Commission has initiated a "Private Lands Technical Assistance" program, supported with federal SWG and LIP grants, to work on sites supporting species of concern. In May, Regional Wildlife Diversity Biologists were hired to work in five of the six regions. The final region position will be filled soon. These individuals are developing contacts with landowners to promote wildlife conservation, primarily for special concern species, on private land. While this program is in its infancy, it has been called by a service forester "a big plus to forest stewardship and other landowners interested in enhancing wildlife habitat, a chance for the landowner to get input from another resource professional at no cost. I think it is the greatest thing the PGC has done since increasing antlerless deer license allocations."

Protected Mammal and Bird Research and Management - Allegheny Woodrat Surveys - Spring surveys of known or potential woodrat habitat were conducted at 13 sites in Clinton, Centre, and Northampton counties. Only one new active site (Centre County) was found. Three sites had evidence of past use. One of these, located in the Delaware Water Gap (Northampton County) and isolated from any active sites, may now be extirpated. Colonial Bird Conservation - The annual survey of Wade Island heron colony, in Harrisburg, found 171 great egret nests, 128 black-crowned night-heron nests, and 40 double-crested cormorant nests. The cormorant count represents exponential growth in that population. Efforts to decoy egrets to a neighboring island have begun and plans are in preparation to reduce the cormorant breeding population. The local conservation officer, Chad Eyler, is coordinating conservation of another large black-crown colony in York. Indiana Bats - The endangered Indiana bats and common little brown bats that form a maternity colony in the Canoe Creek church now have an additional roost. During the spring, wind damage to the roof of the garage on the adjacent Traxler property was repaired, the doors were secured, and baffles like those in the church were installed. Indiana bats have been found using the baffles. With the help of the Western Pennsylvania Conservancy, PennDOT, and DCNR, this small but critical adjacent parcel has been conserved as a Commonwealth property within the Indiana bat study area. Two of three lactating female Indiana bats captured as they emerged from an experimental aluminum roost box in the state park became subjects of a telemetry study. The initial portion of the study documented the rearing of pups in both the aluminum box and in the bat condo. Telemetry was also done on a third lactating female, one that was first captured in the church as a juvenile in July 2001. This bat had also been mist-netted in the foraging area in 2002 and found in the church attic in 2003. This year, she was



More than 140 individuals, representing at least 20 universities, museums, federal, state and local agencies, schools, and nonprofit organizations, participated in the bioblitz held 16 & 17 July.

Numbers of species reported for preliminary results were:

*80+ birds
19 mammals
11 reptiles
3 amphibians
16 fish
302 vascular plants
20 mosses
5 liverworts
6 lichens
94 fungi
80 aquatic invertebrates
477 terrestrial insects
35 land snails*

A number of these are species of special conservation concern.

The final tally from laboratory identifications is expected to be much higher.

found in the church again and was tracked to the foraging area and the condo. Cal Butchkoski is one of five principal investigators for a multi-state project examining the population dynamics of Indiana bats. Other principals are biologists from the states of New York and Vermont, a New Hampshire consulting firm, and the USFWS Northeast Region office. The initial stage of the project will use little brown bats as surrogates in an intensive mark-and-recapture study. On 16-18 August, a contingent from northeastern states banded and inserted biomarkers under the skin of 800 little brown bats at Canoe Creek. Bats will also be marked at several other locations in the Northeast. Northern Flying Squirrel -- The first pregnant female ever found in Pennsylvania was discovered during surveys at Pocono Lake Preserve in mid-May. A second meta-population was discovered on SGL 29 in Warren County. Special Concern Birds – Nesting status surveys, completed annually, were conducted for bald eagles, osprey, colonial waterbirds, marsh birds at Conneaut Marsh, grassland birds, and others. Results are preliminary, but bald eagles expanded by about 10% again this year to nearly 80 nest sites and 100 young. Federal de-listing continues to be hinted.

The 2nd Pennsylvania Breeding Bird Atlas is in full swing. Over 1,600 blocks have been claimed (owned) by volunteer birders through a high-tech, on-line block registration function set up by the Cornell Lab of Ornithology. On the web site, <http://bird.atlasing.org/PA>, you can download sections of USGS 7.5 minute topo sheets and aerial photographs formatted to the atlas 'block.' Anyone willing to register on the site can gain access to these maps or "1st Atlas" data by block. Volunteers are now entering new data at this web site. Additional information is available at the newly updated Atlas home page, www.pabirdatlas.org. The quantitative aspect of this project also got started in a big way by seven paid and volunteer top-notch birders completing point counts in about 600 blocks. Standardized wetland bird protocols were field-tested by the point counters but not otherwise deployed to the atlas volunteer force. Other new project features, including modeled habitat mapping and standardized nocturnal surveys, are under development for deployment in 2005. Despite an invasion of cicadas in eastern Pennsylvania, volunteers garnered such highlights as the state's first sandhill crane nest and confirmation of E&T species at new sites, such as sedge wren in York County and dickcissel on territory in Lancaster and Luzerne counties.

Pennsylvania Fish & Boat Commission - Chris Urban - The PFBC is in the process of combining its fish, amphibian and reptile, and invertebrate advisory committees with the corresponding PABS technical committees; a draft Cooperative Agreement is undergoing final review and editing by PFBC legal counsel. Past advisory members are being contacted and asked of their interest and involvement in the membership to these "new" committees.

Given their limited distribution and threats in Pennsylvania, PABS Technical Committees have recommended state listing of several species. The Reptile and Amphibian Technical Committee has recommended updates and listing of two reptiles (rough green snake, spadefoot toad) to state endangered status. The Mollusk Subcommittee of the Invertebrate Technical Committee has prepared status assessments and proposed listing packages for seven freshwater mussel species; two as candidate species (brook floater and Atlantic spike), one as a threatened species (snuffbox), and four as endangered species (eastern pearlshell, round hickorynut, sheepnose, and pistolgrip). In addition, the rayed bean mussel was recently designated as a federal candidate species. The status of this species is also under review. Development of listing criteria will need to be finalized before listing packages are prepared for an upcoming Commissioners meeting.

The Mollusk Subcommittee has also recommended the Commission disallow mussels to be collected as fish bait and the possession of live mussels and shells be eliminated. This proposal continues to undergo internal review.

Amphibian and reptile regulations (Fish and Boat Regulations, Chapter 77) are still in the process of a comprehensive rewriting. Several meetings have taken place and four drafts have been reviewed. Proposed changes are to be reviewed internally before they go to the January Commissioners meeting for proposed rulemaking.

The PFBC is participating in the development and testing of the PNDI environmental review Heritage GIS system. In cooperation with the Game Commission, a MOU has been developed to address species of concern data sharing/use of this new system with DCNR. An MOU has been drafted and is in the final stages of internal review.

PFBC staff has conducted rare species surveys in conjunction with Natural Area Inventories and several high profile development projects: Massasauga surveys in northwest Pennsylvania, bog turtle surveys in Chester County, and T&E fish surveys on the Allegheny River, to name a few. Staff are currently in consultation with several other high profile projects in various locations throughout the Commonwealth. Staff also conducted expert testimony in two different court cases regarding threatened and endangered species protection.

Statewide Timber Rattlesnake Site Assessment and Inventory Project – den/maternity site assessments, PIT tagging, blood sampling. After a season and a half of sampling, approximately 175 sites have been assessed as to their quality and threats. PIT tagging has occurred in targeted locations throughout the Commonwealth, as well as at organized snake hunts. To date, approximately 250 timber rattlesnakes have been PIT tagged and 220 blood samples have been collected. The historic data survey ends in 2006. The next phase of the study will target the data gaps while also focusing on estimating the statewide population.

The Natural Diversity Section Chief also taught a two-phased pilot bog turtle habitat assessment training program for consultants in coordination with the USFWS and Pennsylvania Association of Environmental Professionals.

Bog turtle
PFBC photo



DEP - Dan Bogar - In his usual succinct way, Dan reported that invasive zebra mussels, found in Goodyear Lake, New York, are working their way south toward Pennsylvania.

Department of Agriculture - Jim Stimmel - Continuing the theme of invasives encroaching on Pennsylvania's borders, Jim reported on the banded elm bark beetle, found in Maryland, and the Asian longhorn beetle, found in New Jersey.

Allegheny National Forest - Brad Nelson - Brad distributed a report on activities in the ANF - *Windstorms* – On 21 July 2003 a wind-storm blew down more than 10,000 acres of trees on the ANF. (This was the same storm event that blew down the historic Kinzua Bridge). Unlike a tornado that typically affects a rather well defined path, this storm impacted the forest in a widely scattered pattern of patches ranging from less than 1 acre to over 300 acres. The ANF acted quickly to remove trees that were blocking access or creating safety concerns. Over the past year we have been completing environmental analyses and salvaging damaged and down trees. Salvage operations are expected to continue for at least another year.

Forest Plan Revision – Work is continuing to revise the Forest Plan. Two public field trips were conducted in early June to view and discuss some of the issues. Progress is continuing to complete the species viability evaluation (SVE), with discussions continuing with most PABS technical committees. A draft of the Analysis of the Management Situation (AMS) has been completed and public meetings to begin the formulation of alternatives were scheduled for 10 September in Dubois and 11 September in Warren.

Surveys and Monitoring – A variety of biological surveys and monitoring efforts have been completed or are on-going on the ANF. Bat mist netting surveys – 38 sites being mist netted this summer under contract with Sanders Environmental Inc. To the PABS meeting date, no Indiana bats had been captured this summer. A total of 282 sites have been mist netted on the ANF since 1998. Appalachian cottontail surveys – Ralph Harnishfeger (Lock Haven University) completed 2 weeks of box trapping for Appalachian cottontails on the ANF. None were captured. River otter monitoring – Tom Serfass (Frostburg State University) continues to monitor river otters on the ANF using remote cameras and genetic analysis of scats. River otters occupy most of the suitable habitat on the ANF including Tionesta Creek, Clarion River and many small impoundments (Buzzard Swamp and Beaver Meadows). Northern flying squirrel – Greg Turner (PGC) has discovered a new population of northern flying squirrels on State Game Land and State Park land within the ANF proclamation boundary. Lamprey surveys – Andy Turner (Clarion University) is completing a lamprey survey on the ANF. He recently documented the Mountain Brook Lamprey on the ANF (the first since 1963). Paddlefish reintroductions – Paddlefish reintroductions are continuing on the upper Allegheny Reservoir/River in New York with a total of 4,154 paddlefish released. A 41 inch paddlefish was found dead along the shores of the Allegheny Reservoir this summer. Dragonfly surveys – Ryan Evans and Charles Bier (Western Pennsylvania Conservancy) are conducting odonate surveys in wetland habitats on the ANF. Carnegie Museum of Natural History is also a partner in this study and verifies vouchered specimens. Goshawk surveys – Tim Kimmel (University of Kansas) and ANF biologists surveyed known goshawk nests on the ANF. David Brinker (Maryland) banded 2 pairs of adults and their young. We have about 25 breeding pairs on the ANF. Osprey surveys – Three nesting pairs on Pennsylvania portion of Allegheny reservoir. We installed a new platform this winter and ospreys immediately built a nest. Bald eagle surveys – Currently 6 known nests on ANF. Monitoring of nest activity continuing in cooperation with PGC. Timber rattlesnake surveys – Cory Turbin (contracting w/PFBC) surveying historic den sites on ANF. Rattlesnake populations have declined on ANF and collecting continues. Hemlock Woolly Adelgid – Early Detection Surveys in 90 stands by ANF foresters have not verified this pest on the ANF. Closest known population is 40 miles away. The environmental analysis (NEPA) for the use of biocontrols will begin this winter. Non-native Invasive Species – surveys continue to document the occurrence of non-native plant species. Equipment cleaning clauses for timber sale contracts have been enacted for timber harvesting equipment moving from infested areas to non-infested areas.

Sensitive plant list – Work is continuing to develop a new sensitive species list for the ANF (species with viability concerns). The ANF will send another summary report to members of the Vascular Plant Technical Committee for review. Several species have been identified as Research Needs Species. Species will be grouped by habitat and survey strategies will be developed. Other research needs will be identified. As county inventories are completed, any new information will be incorporated.

Carnegie Museum of Natural History - John Rawlins - John introduced Dr. James W. Fetzner, a visiting curator and specialist in molecular methods. John provided the verbal aspect of a presentation on the Catalog of Pennsylvania Biodiversity (CPB) while Jim controlled the digital aspects. The catalog will be a full listing of species authoritatively documented in the state. The system would be unique to Pennsylvania; no other state has the equivalent. According to John, the catalog will be “a giant version of the box scores.” Nomenclature and presence/absence are the major functions. Search results would include, at minimum, species name and taxonomy. The system is capable of further levels of “painfully detailed” information and documentation, which would be controlled by datamasters for the various taxa. According to John, the presentation was, in a very real sense, a product of efforts of the Systematics/Collections group, although the committee has not yet met formally (but plans to do so this fall).

The CPB is being developed by staff from Carnegie Museum of Natural History but was intended from inception to be a useful web tool for PABS. The project is continuing in 4 phases:

1. Development of the database with administrative, record-keeping, and list-making functions (this work is far advanced)
2. Preparation of governing rules and principles for operation of the CPB (this effort is conceptually complete but actual writing and production have not yet been attempted)

3. Establishment within PABS of policies and practices related to data entry and oversight. Actions by the Collections and Systematics Technical Committee that will require buy-in by the Steering Committee (this has yet to be done)
4. Training of datamasters for each major taxonomic group of organisms, and population of the database (early in 2005 if things go as planned)

The CPB development is seeking support from several sources and cannot complete or sustain this worthy project though startup funding alone as provided by the Pennsylvania Biodiversity Partnership. Contact John Rawlins for further details. A more complete written description of CPB will be available for the January meeting of PABS.

Pennsylvania Biodiversity Partnership Science Task Force - Charles Bier - The next step after the publication of the PBP's Snapshot was to identify a list of Pennsylvania biodiversity issues to be addressed, based on focus groups, public comment forms, task force meetings, and team meetings. Charles distributed a draft list revised by the Science Task Force and reviewed by the BCP Team. Ten issues (each with multiple sub-issues) have been identified:

- Prioritizing research/information needs
- Classification of natural communities and landscapes
- Classification of taxa and genetic resources - Systematics
- Inventory and monitoring of all levels from genetic to landscapes in both space and time
- Understanding ecological function of natural systems
- Determination of conservation status
- Threats analysis - State wildlife plan for animals and habitat
- Methods to ensure use of effective/quality science practices
- Data reliability and completeness issues from the perspective of science
- Collections as resources for biodiversity science

Next PABS Meeting: *Date:* *Thursday, 20 January 2005*
Time: *9:30 A.M.*
Location: *Erie Room*
Pennsylvania Fish & Boat Commission Headquarters
1601 Elmerton Avenue, Harrisburg

Snow Date: *Thursday, 27 January 2005*