



Moshannon Group News



Moshannon Group of the Pennsylvania Chapter of the Sierra Club

March 2003

March 18 General Meeting:

Impacts of Habitat Fragmentation on Biodiversity

Guest Speaker—Ed Perry

Paving over forests, wetlands, grasslands, and streams adversely affects wildlife.

What is not as well understood is that the effects of locating roads, shopping centers, and housing subdivisions in the midst of large habitat blocks extends far beyond the footprint of the project. This fragmenting of the landscape occurs and is compounded by each new road, business and housing development.

Fragmenting large blocks of habitat creates what is called edge habitat. Edge is simply the juncture of two different habitat types, such as when a field abuts a forest, or a gravel road cuts through a forest.

In the early days of wildlife management, even some of our Nation's greatest conservationists, such as Aldo Leopold, advocated creating edge habitat because they believed that this was the best way of increasing the diversity and density of wildlife. However, we now know that this management technique comes at a cost. And that cost is the loss of native forest, grassland, and wetland wildlife that require large blocks of unbro-

ken forest to survive. It is true that edge habitat generally supports nearly the same number of species as unfragmented habitat, or in some cases even more. But the species composition between the two habitat types is remarkably different. Fragmented habitat is generally populated with species that are fairly common, such as blue jays, great horned owls, skunks, possums, raccoons, and deer. In contrast, unfragmented habitat is populated by species that require large blocks of habitat. These are called area-sensitive species. Examples of area sensitive species include many species of warblers, bog turtles, wood turtles, scarlet tanagers, and massasauga rattlesnakes.

Given the amount of sprawl and roads that have already been built, it is obvious that a substantial amount of Pennsylvania's landscape has already been fragmented, favoring the survival of edge species. Moreover, considering the pace and direction that the road system and development is going, it is clear that the survival of species requiring

Fragmenting large blocks of unbroken habitat adversely affects wildlife:

- *travel corridors are cut off*
- *habitat adjacent to the fragmentation is made unsuitable for specialized species*
- *the remaining patches are often too small to support species that have specific habitat requirements*
- *the introduction of more tolerant, nuisance or exotic species into the area is facilitated*
- *the mortality of area-sensitive species from predation or parasitism is increased by the invading edge species that are tolerant of habitat fragmentation.*

EVENTS CALENDAR GENERAL MEETINGS

Tuesday, **March 18**, 7PM: the Centre Furnace Mansion and Centre County Historical Society at Porter Road and East College Ave. Guest Speaker: Ed Perry will speak on habitat fragmentation. See article on Page 1.

OUTINGS

Sunday, **April 6**: Canoe 10 miles of fairly easy, but swift Class 1 water on Beech Creek through the new Sproul State Forest Lands. Contact Dave Coleman .

Sunday, **April 13**: Hike 8.2 miles on the section of the Allegheny Front Trail that parallels Moshannon Creek and Six-Mile Run. Ed Perry, who spent much of his career as an aquatic biologist, will join us on this hike. Contact Gary Thornbloom.

Saturday **May 3**, Seventh Annual Spring Creek Cleanup by canoe! Contact Dave Coleman for details. Some canoeing experience required.

Saturday and Sunday **June 7-8**: Moshannon Group overnight canoe camping on the West Branch of the Susquehanna. Contact Dave Coleman .

EARTH DAY

Sunday, **April 13**: Noon to 8 PM, Earth Day celebration on Hub Lawn. The Moshannon

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Off The Chair

Dave Coleman

Spring is here – well almost. I have heard many reports on Robins returning and so on. Winter doesn't officially end until the end of March, but all of the abundant snow pack we have received this winter may be flowing down our creeks and rivers before then. This is the awkward time between the seasons where the snow is too slushy to ski, but it is too cool yet to think about getting the canoes out of storage – at least for most of us.

But it is time to begin planning spring activities.

Think about joining us on one of our canoe outings this spring. For the adventurous novice and experienced canoeists alike, the day outing on Beech Creek will be rewarding. Over 10 miles of remote woodlands and swift moving waters will be your reward in addition to exploring the commonwealth's newest state forest land.

Consider the annual canoe camping trip on the West Branch of the Susquehanna for a great weekend on another remote stretch of river with several hiking opportunities and great eating around the campfire. We are also scheduling a few other hikes. Besides the outings listed in this edition of the newsletter, contact Gary or myself for other non-listed and more impromptu trips that may be planned.

For the more service oriented, (but having fun doing it), don't miss our seventh annual Spring Creek cleanup by canoe in cooperation with the Clear Water Conservancy on May 3rd.

Attend the group's programs. Ed Perry, retired from the U.S. Fish and Wildlife Service has graciously offered to give us a talk on wildland fragmentation. This program, complete with a slideshow

is very interesting, informative and thought provoking. This may be our last program of the season, so don't skip it.

Be sure to participate in the Earth Day celebration nearest to where you live. For over 500 of you (that live in Centre County), that would be on the Penn State Campus (HUB lawn) on April 13th.

Get involved with a Sierra Club campaign or issue. We have just completed the State Forest Wild Area Protection Campaign brochure that will be available at meetings and other events (check the Chapter Website in the coming weeks). This brochure will be used not just in the specific campaign, but also in state forest issues in general. Stay tuned for more specific information about the upcoming final state forest plan public comment opportunities that will be presented this spring and summer.

Joe Banks, long time Sierra Club activist and Moshannon Group leader testified in January at the public hearing on the Centre County Greenways Plan. Joe spoke on behalf of the group in favor of the proposals detailed in the plan. Joe expressed the opinion of the majority that public access ways, linear parks and wildlife corridors will enhance the quality of life here in Central Pennsylvania. Get involved with your local municipal government and the county planners to make the vision of the plan a reality.

I have listed seven specific activities above to consider doing this spring. Surely, one of them is your "cup of tea". Make a purposeful step to be more active and involved. This time of the year – the season of new beginnings - is the ideal occasion to get off the chair.

Forest Fragmentation (Continued from page 1)

large blocks of habitat is seriously threatened. We are creating more edge habitat on a daily basis, while there are few, if any, instances where large blocks of habitat are being created.

At our next meeting, Ed Perry, an aquatic biologist who recently retired after a 30-year career with the US Fish and Wildlife Service, will present a slide program entitled: *The Impacts of Habitat Fragmentation on Biodiversity*. Ed recently spoke at the Pennsylvania Wildlands Recovery Project Conference in State College. Notes about speakers at that conference said this about Ed: *Ed has saved key wildlife habitat across the state and elsewhere as a vigorous watchdog of the Clean Water Act and its regulations. He has helped jumpstart the activist careers of conservationists across the state. He is hero to thousands of conservationists in Pennsylvania for his role in protecting fish and wildlife resources.*

Ed decided to develop this presentation after observing how transportation projects were dissecting and obliterating the landscape. For example, PennDOT's proposal to locate Interstate 99 high up on the unbroken forest along Bald Eagle Ridge would directly destroy over 500 acres of aquatic and terrestrial habitat. As severe as this effect is, the indirect effects extend to an additional 2,300 acres. And this is a conservative estimate. This does not consider the streams and wetlands down slope of the highway that would be filled with sediment, and polluted with highway runoff, salt, heat, pesticides and the occasional, inevitable spill. Nor does it consider that the effects are likely to extend more than 300 feet into the adjacent forest, as some studies have shown.

Join us for an informative and interesting look at the relationship between the sprawl that accompanies development and the land that is left in its wake. The March General Meeting will be held on Tuesday March 18, 7PM at the Centre Furnace Mansion and Centre County Historical Society at Porter Road and East College Avenue.

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Group will be present along with dozens of other conservation groups to distribute information about current issues. Frances Moore Lappe and Anna Lappe, Authors of *Hope's Edge: The Next Diet for a Small Planet* will be the keynote speakers.

EXECUTIVE COMMITTEE MEETINGS

These meetings are held on the **first Tuesday** of the month and they are open to all members. Call an Executive Committee Member for the next meeting, location.

PA Wildlands Conference Draws 200 To State College

By Gary Thornbloom

The second Pennsylvania Wildlands Conference began on February 1 with the keynote address by former Sierra Club Director Dave Foreman, who is perhaps better known as a founder of Earth First!, publisher of Wild Earth magazine, author of *The Big Outside*, and one of the founders of the Wildlands Project.

Foreman gave an overview of what the Wildlands Project is all about: regional projects spanning the continent that include core areas and corridors connecting these areas with conservation biology providing the science guiding the layout of this network. A key part of the process is the need to realize that protection of habitat needs to be linked to healing habitat.

The general concept was made specific by Foreman's discussion of the Sky Islands Wildlands Network which is the part of the Wildlands Project that includes Foreman's home state of New Mexico. While Foreman emphasized the need to think big and to be bold in promoting the Wildlands Project, he closed his talk with a slide showing him releasing a Black-footed Ferret into the wild. Dave Foreman referred to this small act of restoration of a nearly extinct animal as a high point in his life.

Conrad Reining, Northeast Director of the Wildlands Project, spoke about the elements involved in designing a network of core areas and linkages through the northeastern United States and into Canada.

Steve Hoffman, Audubon PA, spoke about the Audubon Important Bird Areas program and how it compliments the Wildlands Project. He emphasized the key roles that wildlife corridors play in maintaining migratory flyways, and the role that restoration of old growth forests plays in the life cycle of many threatened species of birds.

Ed Perry (see the article on page 1, as Ed will be the guest speaker at the March 18 General Meeting of the Moshannon Group) gave a presentation on habitat fragmentation, a danger that prior speakers had referred to. Perry provided an accessible look at what happens to the landscape as development erodes it. He provided images, and explained the biological impact of the changes. Much of his question and answer exchange with the audience was devoted to the politics that aggravate the situation.

Bob DeGroot, president of the Maryland Alliance for Greenway Improvement and Conservation, spoke of the many alliances his group has formed in their united efforts to preserve and connect critical habitat in Maryland.

Susan Hagood, who works in the Wildlife and Habitat Protection Section of the Humane Society, presented slides showing numerous approaches to the design of wildlife overpasses and underpasses. Many of the slides came from a federally sponsored tour of sites in Europe where the problems associated with wildlife and highways has been being aggressively addressed for over thirty years. She also discussed innovations in Banff Park in Canada. With the sheer number of highways that already carve up the landscape, it will be necessary to creatively incorporate these ideas into highway design and repair if there is any hope for the concept of core areas connected by corridors to succeed.

Robert Lonsdorf, a planner for the Brandywine Conservancy in Chester County, detailed how, even in a densely developed area, corridors can work. This can come about despite the challenges imposed by various municipalities setting their own standards.

Clare Billet of the Natural Lands trust showed how their interactive web based software will be used to provide mapping to identify sites that are integral in laying out the core and corridor areas needed for a successful Wildlands system.

The conference closed with a question and answer session. The theme of Prospects for Recovery and Rewilding was addressed by each speaker from their perspective. Information tables around the perimeter of the hall provided a variety of groups with the opportunity to get their message out.

The Moshannon Group was present and unveiled a new color brochure on State Forest Wild Areas. Dave Coleman, Chair of the Moshannon Group, put this brochure together for the purpose of educating the public, and activating Sierra Club members to get the Bureau of Forestry to permanently protect these areas. The brochure makes the case for protection by showing these areas through photos, map, chart, and text. The Wildlands Conference provided the appropriate setting for the initial distribution of this brochure.



Tables set up by various conservation organizations provided an excellent opportunity to network. The Moshannon Group table is in the photo at the lower left. Photos were provided by the Pennsylvania Wildlife Recovery Project. You can see more as well as read a more detailed account of the conference by visiting their website: www.wildpennsylvania.org

**Moshannon Group of the
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P.O. Box 513
State College, PA 16804

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Moshannon Group Directory

*members of the Executive Committee

Chair & Conservation	*Dave Coleman	234-0839	dyatesc@aol.com
Vice Chair , Newsletter & Outings	*Gary Thornbloom	353-3466	bearknob@chilitech.com
Treasurer	*Bill Tanner	542-8519	billtann@penn.com
Secretary	*Judy Tanner	542-8519	billtann@penn.com
Web Editor	Elisa Beshero-Bondar	237-3983	eeb4@psu.edu
Membership,	*Jan Filiaggi	466-7362	rjf21@adelphia.net
Ex-Com Member	*Hilary Vida	371-3277	
Ex-Com Member	Available position.		
Newsletter Mailing	Nancy deStreel		
Programs	Available position.		
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