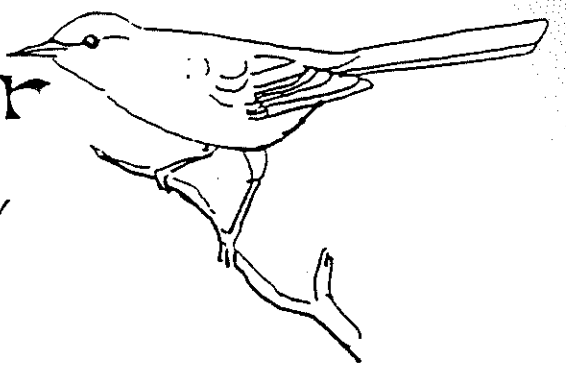
The Gnatcatcher



JUNIATA VALLEY AUDUBON SOCIETY

MARCH 1994

MARCH PROGRAM: WATERFOWL

Pennsylvania Game Commission biologist John Dunn will join us to discuss his research with the waterfowl of the Middle Creek Wildlife Management Area in Lebanon and Lancaster Counties.

TIME: 29 March 1994 (Tuesday) at 7:30 PM

PLACE: 5th Avenue United Methodist Church
5th Avenue and 4th Street
Altoona

BI-LO / RIVERSIDE RECEIPTS

Bi-Lo and Riverside receipts are being collected by Anne Borland, 138a Larch St., Hollidaysburg, PA 16648. Our chapter obtains significant funds from the receipts that you send to Anne. Let's all save those receipts and send them in!

BANQUET SPEAKER PREVIEW

Our speaker at this year's JVAS banquet on Tuesday April 26 will be Dr. Thomas Dick, founder of the Allegheny Plateau Audubon Society and former president of the American Littoral Society. His topic of discussion will be the Allegheny Plateau Audubon Society's wetland restoration project at the 170 acre Hidden Acre Farm along Dunning Creek in Bedford County. As a preview of his discussion, on pages 2, 3, and 4 of this Gnatcatcher we have reproduced an article by Dr. Dick which appeared in Pennsylvania Birds, volume 7, No. 1, (June 1993), pp. 4-6. The article details the rapid and spectacular success of this exciting wetland restoration effort. We hope that it will whet your appetite for the outstanding slide show which Dr. Dick is eager to present!

JVAS BANQUET

Our annual JVAS banquet will take place at Fort Roberdeau's White Oak Hall on Tuesday, April 26, at 6:30 PM. An exceptional slide presentation regarding a wetland restoration project in Bedford County will be given by Dr. Thomas Dick of Johnstown. This promises to be one of our finest programs ever and is definitely a "must see" event! Our banquet once again will be catered by Anne's Towne Dairy of Hollidaysburg and will feature roast turkey with filling, mashed potatoes, corn, green beans, tossed salad, rolls, coffee, punch, and desert all for the paltry sum of $12. If you plan on joining us for this gala event, simply fill out the reservation stub below and send it to Amy King, 3021 W. Chestnut Ave., Altoona, PA 16602. Make checks payable to the Juniata Valley Audubon Society. All reservations must be received by April 12.

PLEASE RESERVE_____PLACE(S) FOR ME AT THE ANNUAL JVAS BANQUET TO BE HELD IN FORT ROBERDEAU'S WHITE OAK HALL ON TUESDAY, APRIL 26, AT 6:30 PM. AT $12 PER PERSON, I ENCLOSE A CHECK FOR THE AMOUNT OF $_____.

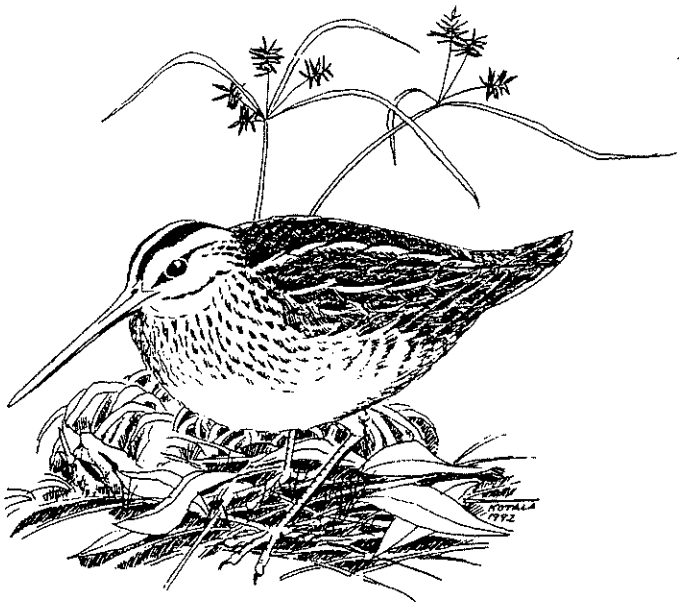
NAME_____PHONE_____

ADDRESS_____

Mail to Amy King, 3021 W. Chestnut Ave, Altoona, PA 16602. Phone: 942-7673

Restored Wetlands as Management Tools for Wetland-Dependent Birds

by **Thomas M. Dick, V.M.D.**



In October 1991, 80 acres of exhausted farmland was rescued from developers and returned to its pre-agricultural state of an emergent marshland. The Allegheny Plateau Audubon Society and the author undertook this project to prove wetland restoration projects are good management tools for wetland-dependent birds. Consider that today much of Pennsylvania's wetlands have been destroyed. Wetlands continue to be lost in Pennsylvania despite rigid wetland protection. Wetlands, especially palustrine or emergent wetlands are among the most valuable in terms of species richness. With much of our wetlands lost, it is not surprising that close to 50% of the birds given categories of special concern in Pennsylvania today are wetland-dependent species. What does all this mean? It means that carefully constructed and planted wetland projects, no matter how small, will definitely benefit wetland specialists. Of course, the natural wetlands need strong protection for they have stood the test of millennia. New projects may not be as successful as the original systems, but consider if original systems are extant then much is to be gained by creating new emergent marsh. Our experience, as you will read, clearly shows these new projects work fast by luring waterfowl, shorebirds, and other wetland-dependent species.

Our initial conflict was locating funding for such a project. Fortunately we tapped into Federal Fish and Wildlife's "Partners for Wildlife" program. The objective of this program is to create wetlands on private lands. They pay the bill. The State College Office of Fish and Wildlife accepted our project at Dunnings Creek in Bedford County. The method used for wetland restoration was to construct dikes, which are simply mounds of carefully compacted soil to catch surface runoff. The first objective is to build a pond, something that will hold water, and the second objective is to build a marsh. The marsh is developed by bringing back the top soil to produce a rich bottom with an average depth of 4 to 8 inches. The final objective is to have ⅓ open water, ⅓ submergent vegetation, and ⅓ emergent vegetation. Of course the most valuable areas are the non-inundated soils which fall under the category of moist soil management. Moist soil has greater plant and insect variety. Deeper water is produced by ditches within the impoundments making it conducive to wetland species such as Pied-billed Grebe (*Podilymbus podiceps*) and Least Bittern (*Ixobrychus exilis*). Potholes were constructed. These 20-foot oval containments are scattered above dikes where they catch water and feed it into dikes and adjacent areas of field. Potholes help to create wet meadows which are ideal for Sora (*Porzana carolina*) and Sedge Wren (*Cistothorus platensis*). These wetlands may eventually dry up, however this is usually in late summer after the young of many species are already fledged. This pulsing of water is important to allow aerobic breakdown of the organic matter which replenishes the nutrient supply to favor future productivity. Years ago the ditches and drains used to divert water away from planted fields were designed and subsidized by the Soil Conservation Service and the Agricultural Stabilization and Conservation Service. Today it is ironic that another branch of government (Fish and Wildlife Service) is undoing all this plumbing by plugging and diverting these watercourses into newly constructed dikes to keep water on the land.

The first year of the project made us ecstatic. Two dikes were completed by October 1991 (we now have 5 dikes and 6 potholes). By January of 1991 the first two dikes were full. The dikes were excellent for winter raptors, with Northern Harriers (*Circus cyaneus*) and Rough-legged Hawks (*Buteo lagopus*) quartering fields and Short-eared Owls (*Asio flammeus*) late in the day. By late February the wetlands were coming to life as a loafing area for waterfowl. The wetlands offered only water since aquatic plants (food) had not yet been planted. Among the first visitors were Tundra Swan (*Cygnus columbianus*), with high counts in the 80s. They were soon followed by dabblers such as

Mallard (*Anas platyrhynchos*), American Black Duck (*A. rubripes*), Northern Pintail (*A. acuta*), Gadwall (*A. strepera*), Green-winged Teal (*A. crecca*), Blue-winged Teal (*A. discors*), and American Wigeon (*A. americana*) dropping in at specific times. Both Hooded Merganser (*Lophodytes cucullatus*) and Red-breasted Merganser (*Mergus serrator*), in good numbers, could be seen diving and probably wondering where the fish were. Ring-necked Duck (*Aythya collaris*) came and went in big numbers (70–123), Bufflehead (*Bucephala albeola*) were spotty and scaup occasionally dropped by. Pied-billed Grebes and American Coots (*Fulica americana*) enjoyed our newly flooded "Goldenrod Marshes." By April, raucous Canada Geese (*Branta canadensis*) were seen but declined to stay. Mallards found the marsh to their liking by nesting and producing about 50 ducklings. By late spring, Wood Ducks (*Aix sponsa*) were the most abundant bird. The impoundment was planted with thousands of submergent and emergent plants on 15 April. By 15 May the area was plush with rich new vegetation. Wood Duck ducklings were a common sight in June. Apparently the ducks nested in boxes along an adjacent creek and marched their young across 200 yards of old field to reach the impoundment. This was particularly interesting since the marsh made a much safer nursery than life along the creek.

April was the month of shorebirds. Partially inundated bulldozer tracts and mud dikes attracted shorebirds by the hundreds. Most numerous were both Greater Yellowlegs (*Tringa melanoleuca*) and Lesser Yellowlegs (*T. flavipes*), but over a period of 5 weeks we managed to see Least Sandpiper (*Calidris minutilla*), Semipalmated Sandpiper (*C. pusilla*), White-rumped Sandpiper (*C. fuscicollis*), Pectoral Sandpiper (*C. melanotos*), Spotted Sandpiper (*Actitis macularia*), Short-billed Dowitcher (*Limnodromus griseus*), Sanderling (*C. alba*), Dunlin (*C. alpina*), Ruddy Turnstone (*Arenaria interpres*), Black-bellied Plover (*Pluvialis squatarola*), Semipalmated Plover (*Charadrius semipalmatus*) and Common Snipe (*Gallinago gallinago*).

Great Blue Heron (*Ardea herodias*), Green-backed Heron (*Butorides striatus*), and Great Egret (*Casmerodius albus*) became common sights. A pair of Green-backed Heron stayed over the summer without known nesting.

Great discoveries were still waiting as we realized we had breeding Sora, Sedge Wren, Common Snipe, Spotted Sandpiper, and Pied-billed Grebes. The Sedge Wren fledglings persisted to October and attracted many excellent and considerate birders from great distances. The grebes produced two offspring. All of these birds are noteworthy and living proof of the value of wetland-creation projects. In fact, at the time, we didn't realize the transition from fallow fields to emergent marsh had increased bird diversity by a whopping 60%.

September started the first movement of migrants with the arrival of two American Bittern (*Botaurus lentiginosus*). This was followed by incredible numbers of Wood Ducks. A combined count by Auduboners and Fish and Wildlife personnel showed regular evening arrivals of up to 800 Wood Ducks and 200 Mallards.

The future for this project includes managing moisture regimes and plantings conducive for breeding American Bittern, Least Bittern, American Coot, Common Moorhen (*Gallinula chloropus*), Pied-billed Grebe, Sora, Virginia Rail (*Rallus limicola*), Sedge Wren, Marsh Wren (*Cistothorus palustris*), and attracting shorebirds. Each species has special requirements, smaller impoundments will be planted to lure grebes, coots, and Least Bitterns, while the larger impoundment (> 10 acres) will be planted for American Bittern and Marsh Wren. The wet meadows between dikes will attract Sedge Wrens again, we hope. Shorebird impoundments will be designed to make macroinvertebrates available during migration—a sort of McDonalds specializing in bugs. This is primarily a function of flooding and drawdowns to expose chrionomid larvae, snails, freshwater shrimp, and polychaete worms.

It should become immediately obvious to the reader that this project is more than a labor of love, it's a grand opportunity on a small scale to maximize wetland habitat for a variety of species.

Recommendations for future projects:

1. Long-term monitoring with good record keeping is essential to understanding the difference between short- and long-term success. This should include not only birds, but plants, reptiles, amphibians, and invertebrates as well. For example, Bird

Clubs/Audubon chapters could adopt such wetlands and maintain records for Fish and Wildlife and the Pennsylvania Game Commission.

2. Groups doing the monitoring should be exposed to a short course on data collecting and species identification. This is already being discussed between Fish and Wildlife and Audubon.

3. Standardize information leading to dike construction among machinery operators. Machinery operators from Erie NWR, who did most of the work on this project, knew how to build good dikes, prevent leaking, or loss of water through gravel beds (historic streams), how to find old tile drains, and especially how to handle hydric soil under varying conditions of dryness or wetness. Most commercial operators do not understand these subtle concepts. Failure to understand these techniques could lead to project failures.

4. Lastly, nature organizations could identify good areas for restoration and notify Fish and Wildlife at their headquarters at Penn State. Emphasis should be placed on historic wetlands, *i.e.*, areas with the right hydrology and hydric soils.

It is ironic that the value of almost every other wildlife habitat was understood and appreciated before wetlands. Wetlands are only being restored at the rate of 200 acres per year as compared to 1500 acres of loss. Funds for wetland restoration could dry up leaving this valuable management tool adrift and with it further decline in wetland-dependent species. In the near future restoration projects may concentrate around National Wildlife Refuges, leaving a broad sweep of private lands out of consideration. This would be unfortunate, since the few refuges are widely spaced and would do little to expand the range of wetland dependents. Another objection is many refuge wetlands are managed maximally and those monies could evaporate into other management practices. Bedford County was well off the beaten path for early consideration of potential wetland sites. The main emphasis was to have been the glaciated northern corners of Pennsylvania. Since the success of the Bedford County wetlands, similar projects have been evenly spread throughout the state. Potential sites such as Bedford abound! These localities are typically fallow farm land along creek bottoms with hydric soils. Spreading restoration projects across the state may be the only chance we have to enhance the breeding success of dwindling wetland-dependent birds. Let's not lose this opportunity. Besides, what better use for land that is neither ideal for development or farming.

RECOMMENDED READING

Brauning, D.W. (Ed.) 1992. *Atlas of Breeding Birds in Pennsylvania.* University of Pittsburgh Press.

Fredrickson, L.H. and T.T. Scott. 1982. *Management of Seasonally Flooded Impoundments for Wildlife.* Resource Publication 148. U.S. Department of Interior Fish and Wildlife Service.

Genoways, H.H. and F.J. Brenner. 1985. *Species of Special Concern in Pennsylvania.* Carnegie Museum of Natural History Special Publication No. 11. Pittsburgh, Pa.

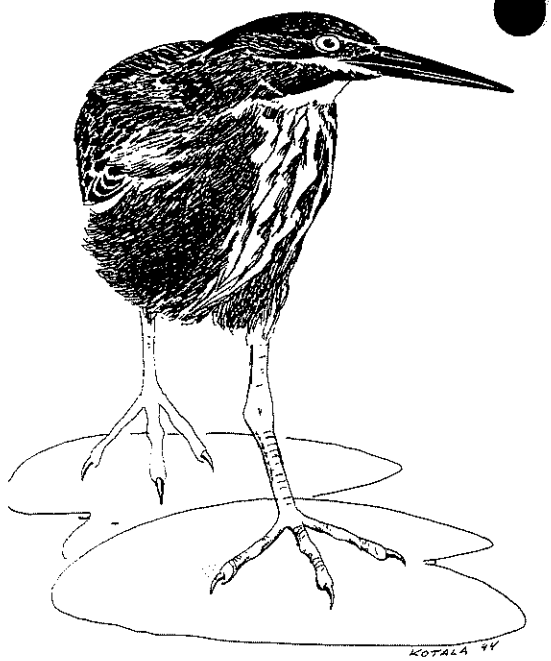
Helmers, D.L. 1992. *Shorebird Management Manual.* Western Hemisphere Shorebird Reserve Network. Manomet, Mass.

Kusler, J.A. and M.E. Kentula. 1990. *Wetland Creation and Restoration: The Status of the Science.* Island Press.

Majumdar, S.K., F.J. Brenner, and A.F. Rhoads. 1986. *Endangered and Threatened Species: Programs in Pennsylvania and Other States, Causes, Issues and Management.* A publication of the Pennsylvania Academy of Science.

Schneider, K.J. and D.M. Pence. 1992. *Migratory Nongame Birds of Management Concern in the Northeast.* U.S. Department of the Interior Fish and Wildlife Service.

Weller, M.W. 1981. *Freshwater Marshes: Ecology and Wildlife Management.* 2nd Ed. University of Minnesota Press, Minneapolis, Minn.



Audubon Council of Pennsylvania
Sixth Annual Issues Day

Saturday, April 9, 1994
Holiday Inn West, Mechanicsburg, PA

9:30am-10:00am **Registration, Coffee, Juices, Baked Goods**

10:00am-10:15am **Opening Remarks**

Leigh Altadonna, ACP President
Walt Pomeroy, National Audubon Society,
Mid-Atlantic Regional Vice President

10:15am-11:00am **Current National Environmental Legislation**

Elizabeth Raisbeck, Sr. Vice President for Regional and Government Affairs, NAS

11:00am-11:15am **Break**

11:15am-12:00pm **Concurrent Sessions**

A. Public Relations

Graham Cox, Senior Vice President of Public Affairs, National Audubon Society
Ways to improve and strengthen public relations.

B. Chapter Sharing

Meet with other chapters and discuss what works, programs ideas, field trips, or just socialize.

C. Clean Air

Nancy Parks, Sierra Club
What to look for when purchasing a new car. Making sense of current clean air initiatives.

D. State Issues

Marci Mowery, Executive Director, ACP
Current legislative initiatives in the state, and where ACP stands on these issues. Attendants at this workshop will participate in selecting priority issues for the coming year.

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E. Property Rights Legislation

Jan Jarrett, Chesapeake Bay Foundation
Understand the implications of this wave of legislation that is sweeping the nation. Develop strategies for promoting property rights that are not at the expense of the health and welfare of Commonwealth citizens.

12:10pm-1:00pm **Lunch**

National Audubon Society Board Update--
Cindy Adams Dunn, Chapter Elected Board Member

1:00pm-2:15pm **Key Note Address**

Pete Myers, President, W. Alton Jones Foundation
Wise use and the environment.

2:30pm-3:20 pm **Concurrent Sessions**

F. Property Rights Legislation
(Repeat of morning session)

G. Chapter Sharing
(Repeat of morning session)

H. Environmental Justice

Fred Baumgarten, Editor, Audubon Activist
What we can do to protect minorities and disadvantaged citizens from being the recipient of hazardous landfills and toxic industries.

I. Bird In The Balance

Walt Pomeroy, Vice President, Mid-Atlantic Region of National Audubon Society
Learn more about this exciting Audubon program.

J. Compuserve

Carmen Santasania, ACP Treasurer
A tutorial demonstration of the program that has the potential to link together those who care about the environment.

3:30pm-4:00pm **Board Nominations/Distribution of Chapter Delegate Handbooks**

CLOSING

REGISTRATION FORM

ACP SIXTH ANNUAL ISSUES DAY

Please provide all the information requested on the registration form. Use a separate form for each person registered (feel free to make copies of this form as needed.) Send your registration, with a check for $25 (which includes workshop materials, morning refreshments, lunch, and a t-shirt) made payable to Audubon Council of Pennsylvania to:

Audubon Council of Pennsylvania
Issues Day Registration
1104 Fernwood Ave, #300
Camp Hill, PA 17011

BACKGROUND INFORMATION

Name_____

Address_____

City_____ State_____ Zip_____

Audubon Chapter (if applicable)_____

Day Telephone #_____ Evening_____

Lunch Choice (pick one):

☐ Chicken Ala King ☐ Vegetarian Lasagne

(Lunch will be served with Tossed Salad, Glazed Carrots, Vegetable Medley, and Sherbet.)

T-Shirt Choice (indicate size and style):

☐ Save our Wetlands ☐ Save our Forests
☐ Large ☐ Extra Large

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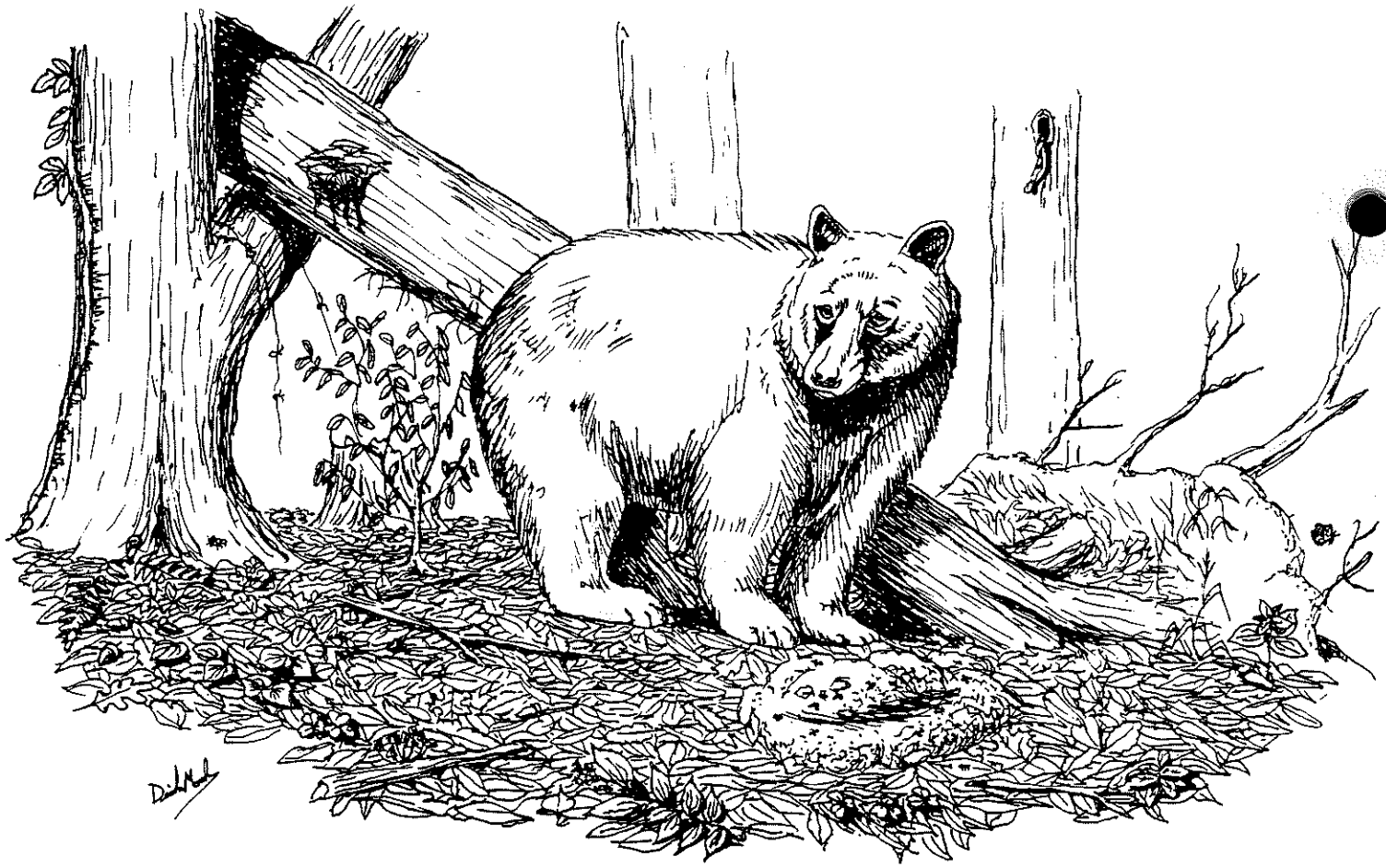
CONCURRENT SESSIONS

Please choose two topics for each session, with "1" being your first choice, and "2" being your second choice. Space is limited to 20 participants per session. We will try to honor your first choice.

11:10-12:00		2:30-3:30	
☐	A. Public Relations	☐	F. Property Rights
☐	B. Chapter Sharing	☐	G. Chapter Sharing
☐	C. Clean Air	☐	H. Environmental Justice
☐	D. State Issues	☐	I. Birds in the Balance
☐	E. Property Rights	☐	J. Compuserve

Registration must be received by March 25, 1994. Registrations received after the 25th cannot be guaranteed a lunch or t-shirt. Registration at the door will be $30.

Contact the Holiday Inn for hotel accommodations (1-800-772-STAY).



Black Bear in Spring by Richard Mock

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