



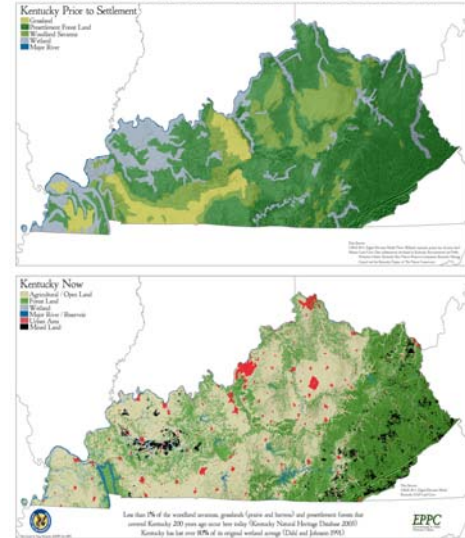
KENTUCKY

“I appreciate all that the Partners program has done for me, I highly recommend it to any landowner or farmer...There was a lot of work to do, but we were able to help the stream with relatively little funds, and I have seen more wildlife on my place since we did my project than I ever had before...They (wildlife) really stay around...and the benefits to my farm production has been great. I would have to recommend the program to anyone.”

Mike Barron, south-central Kentucky farmer, cattle producer, private landowner, and Master Conservationist

Introduction and General Description

KENTUCKY THEN & NOW



[By Kentucky Nature State Nature Preserves Commission]

Kentucky contains 89,000 miles of streams within 17 major watersheds, which support 230 species of fish and approximately 103 species of mussels, or about 35% of the nation’s fauna. The bluegrass region of Kentucky has been labeled as one of the endangered ecosystems in the United States, with only one tenth of one percent of the original habitat remaining. Extensive wetlands once dominated the Mississippi River and Ohio River floodplains, and there was an estimated two to three million acres of native grassland, savannah and barren habitats occupying portions of the Bluegrass and Pennyroyal. Sadly, many of these rare, unique, and essential ecosystems have been severely altered, degraded or destroyed due to coal mining activities, urban sprawl and development, dams, highway systems, stream channelization, wetland, and prairie conversion for agriculture, poor logging operations, and numerous destructive agricultural activities.

The Partner’s for Fish and Wildlife Program assists with the restoration and enhancement of every ecosystem in the Commonwealth of Kentucky that benefits federal trust species. Without conservation efforts on private lands, our trust resources would simply not recover. Many private landowners in Kentucky want to restore and conserve habitats for fish and wildlife resources, but often lack the financial support and technical knowledge necessary to accomplish this task. The U.S. Fish and Wildlife Service’s Partners for Fish and Wildlife program, along with its other conservation partners, helps to satisfy this need by conserving, protecting and restoring quality fish and wildlife habitat for federal trust species on private lands.

Habitats of Special Concern

The Partners for Fish and Wildlife Program in Kentucky assist in the restoration and conservation of all potential habitats for federal trust species, but the program concentrates on these five primary habitats of concern:

- **Stream and riparian habitats with threatened, endangered, candidate and state rare species**
- **Wetlands and bottomland hardwoods to benefit migratory birds**
- **Native prairie, barren, woodland savannahs, and canebrakes to benefit migratory birds and rare plant species**
- **Karst or cave habitats with threatened and endangered bats and other rare cave organisms.**
- **Oak hickory, American chestnut and old growth forests to benefit migratory birds and rare plant species**

Within these habitat groups, the Partners program concentrates its efforts in certain physiographic areas and watersheds to maximize funding and objectives. Partners projects have been completed or are being conducted in geographic focus areas.

Threats

- Over 20% of Kentucky streams are impounded, and most have been channelized, buried, or severely altered.
- Most streams suffer from failing banks, lack of floodplain access and riparian corridors.
- Coal mining and illegal logging practices destroy and threaten many streams in Kentucky, which can jeopardize species.
- Gravel removal from stream beds is a historical and current problem that damages the stability of streams and the organisms that reside there.
- Non-point source pollution from poor agricultural practices, such as allowing livestock to freely occupy stream, forests, and wetland habitats, also causes aquatic species to decline.
- Raw sewage from “straight pipes” and lack of proper septic systems is a current problem throughout Kentucky.
- Over 35% of the river miles within Kentucky do not meet minimum water quality standards, thus causing a statewide fish consumption advisory because of the presence of mercury.
- Human contact with the water is not recommended in many waterways throughout the state.

- Approximately 81% of all the wetlands in Kentucky have been eliminated through agricultural and/or development.
- Only 0.1 percent of the historical thirteen million acres of older growth forest persists in Kentucky today.
- Less than one percent of the 2-3 million acres of native prairie, barren, savannah and glade habitats once present in Kentucky remain.
- New highway and road development destroys and fragments all habitats.
- Land development and urbanization of farmland and natural areas is a major threat to fish and wildlife habitat on a landscape scale.
- Sinkholes and caves are used as dumping grounds for trash and/or sealed shut, disrupting air flows or destroying the cave environment.
- Exotic species are extremely pervasive throughout Kentucky and they threaten most habitats and impede habitat restoration efforts.
- Essential fish and wildlife restoration techniques are often not used enough when restoring rare habitats. These include suppression of fire in grassland and forests and not restoring stream habitats using natural channel design and bioengineering techniques.

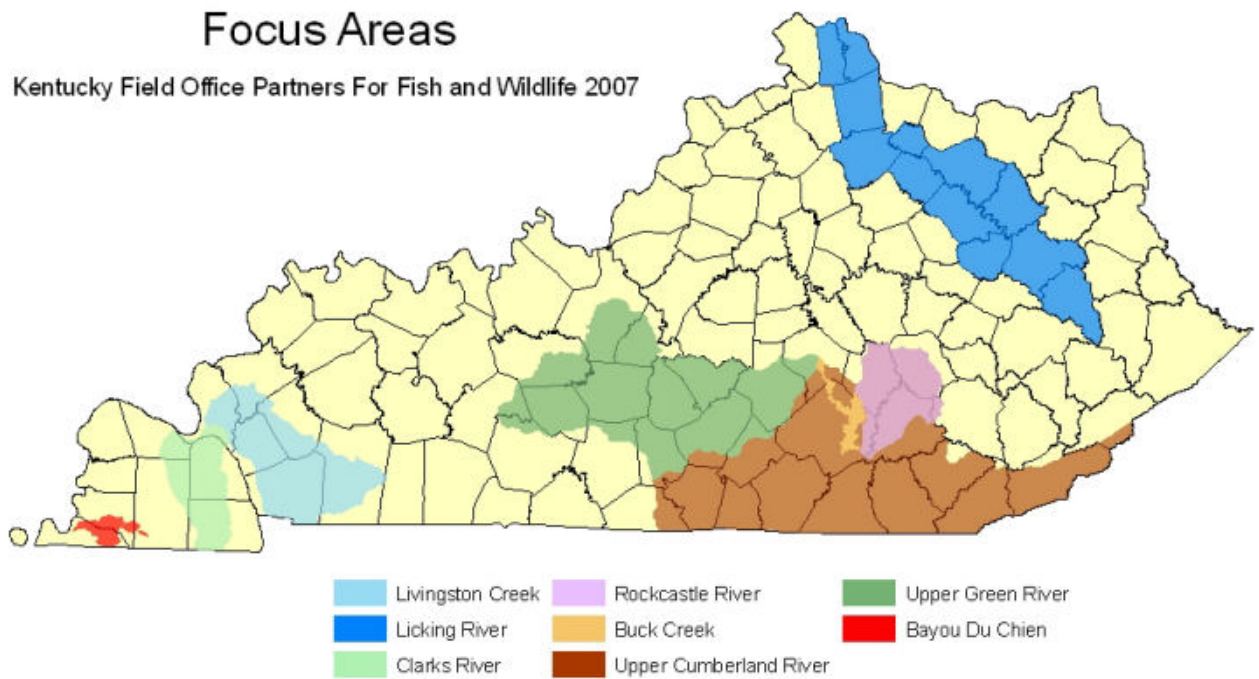
Conservation Strategies

The Partners Program in Kentucky works in cooperation with a host of conservation partners to restore vital fish and wildlife habitat. The most important cooperator is the private landowners themselves. The main objective of the program is to give technical and financial assistance to private landowners using a multi-program and total farm/land base restoration approach when possible. Many willing landowners want to restore habitat on their land, but lack the technical and financial means to do so. Often, one program will not accomplish the overall task needed to resolve problems facing federal trust species. Partner's biologists provide vital technical assistance on a wide range of conservation programs, such as Farm Bill, to maximize the overall success on a given project. Many of the Partner's projects in Kentucky are on small rural farms not over 160 acres (the average farm size in Kentucky). Partners biologists often help landowners to establish and restore habitat, while helping the landowner improve his or her overall farm operation.

Kentucky Partners for Fish and Wildlife Major Geographic Focus Areas

Priority areas are set based on biological data from several state, federal and private organizations. Recently, Kentucky Department of Fish and Wildlife Resources developed a Comprehensive Wildlife Conservation Strategy Plan (CWCSPP) in order to identify and manage Kentucky's species of greatest need. This complies with the congressional requirements of the state and tribal wildlife grants program. In this first plan, a total of 251 species of Greatest Conservation Need were identified in seven taxonomical groups. The Partners Program is in accord with the priority areas in the CWCSPP and will work in unison with the plan and KDFWR to help the species and habitats defined. Details of this plan can be viewed at <http://fw.ky.gov/conservstrat.asp>.

- Bayou du Chien watershed
- Terrapin Creek watershed
- Clark's River watershed
- Livingston Creek watershed of the Lower Cumberland River
- Upper Green River Basin
- Buck Creek Watershed
- Rockcastle River watershed
- Muddy and Silver Creek watersheds of the Kentucky River
- Licking River Basin
- Upper Cumberland River Basin
- Lapland (Big) Barrens Prairie Region



Partner for Fish and Wildlife Focus Areas for Kentucky



Cedar Tree Revetment before Implementation, Photos by J. Brent Harrel



Cedar Tree Revetment 6 Months after Implementation

Partners

Bernhiem Forest
Bluegrass Caving Grotto
Cumberland Valley RC & D
Ducks Unlimited
East Kentucky Power
Eastern Kentucky University
Environmental Protection Agency
Farm Services Agency
Fayette County Government
Jackson Purchase RC and D
Jackson County Development Association
Kentucky Division of Conservation
Kentucky Department of Local Governments
Kentucky Department of Fish and Wildlife Resources
Kentucky Nature Preserve Commission
Kentucky Division of Water

Kentucky Division of Forestry
Kentucky Chapter of The Nature Conservancy
Kentucky Transportation Cabinet
Knox County Government
Mammoth Cave National Park
Madison County Government
National Wildlife Turkey Federation
Natural Resources Conservation Service
Northern Jackson County Commission
Powell County School Board
Personal Responsibility in a Desired Environment
Private Landowners
Quail Unlimited
Roundstone Seed, Inc.
Southern Conservation Corp.
Steele-Reese Foundation
Tennessee Valley Authority
Toyota
Upper Cumberland Waterwatch Group
U.S. Forest Service
U.S. Geological Survey
U.S. Army Corps of Engineers

Accomplishments

The U.S. Fish and Wildlife Service's Partner's for Fish and Wildlife program began in earnest in the Commonwealth of Kentucky in late 1998, and has been rapidly growing ever since. From 1999 to 2005, more than 90 private landowners throughout the state have cooperatively worked with the Partner's program to restore vital fish and wildlife habitat in Kentucky. Since 1999, the Partners program of Kentucky in conjunction with its partners has accomplished the following:

- 37 miles of forested riparian established and protected
- 2 miles of failing stream banks and erosion areas repaired
- 53 acres of wetlands created
- 286 acres of bottomland hardwoods planted
- 1215 acres of native grass for upland bird species established
- 4 biologically significant caves restored and protected
- Precluded the federal listing under the ESA of two candidate cave beetle species
- Over 90 signed private landowner agreements since 1999
- Established 4 educational wetlands
- Given technical assistance and reviewed over 200,000 acres for restoration through various programs

Future Needs

- Work with other agencies, private landowners and organizations to adopt natural channel design, fish passage friendly culvert designs, and bio-engineering techniques for restoring degraded stream habitat
- Work with other agencies, private landowners and organizations to restore additional and better fish friendly in-stream habitats
- Restore over 10,000 miles of degraded stream habitat
- Restore over 100,000 acres of native prairie, barrens and savannah habitat
- Restore over 50,000 acres of wetland habitat
- Protect and restore 300 caves
- \$500,000 for natural channel design engineering assessment and restoration of portions of Bayou du Chien for creation of relict darter habitat
- Create more outdoor stream and wetland classrooms for schools
- Ten fold increase in funding for invasive species control throughout Kentucky
- Continue to build viable and productive partnerships to restore quality habitat in Kentucky

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