

PLANT LIFE

Daviess County is fortunate to have a wide variety of plant species. The following is a listing of different plant species supplied by Randy Hedges, Area Wildlife Biologist. (* rare species, ** endangered species)

BOTTOMLAND AREAS. Plants found along the Ohio River, Green River and Panther Creek include Red Maples, River Birch, Cherry Bark Oak*, Pecan*, Bald Cypress*, Cattail, Poison Ivy, and Salt Marsh Cattail**.

UPLAND AREAS include Buck, White Ash, Catalpa*, Dogwood, Redbud, Club Nose*, Spider Lilly*, Blackberry Lily*, Kentucky Coffee Tree*, Ginseng*, Purple Fringe Orchid**, and Nodding Trillium**.

BRUSHY AREAS include Persimmon, Black Locust, Sassafras, Turtle's Head*, Nettle, Morning Glory, and Foxtail.

ANIMAL LIFE

Although the Kentucky Department of Fish and Wildlife Resources in Frankfort has found no unusual wildlife populations in our planning area, Daviess County does provide an excellent habitat for populations of small game birds, mammals and fish. The area Wildlife Biologist reports this region contains common wildlife species native to the geographical and topographical regions of Western Kentucky.

An area south of Owensboro, known as Jackson Flats, provides an excellent habitat for a multitude of wildlife species. These wooded bottomlands, which are bisected by Panther Creek, provide a principal habitat for many species of migrating waterfowl, which rest and feed along the lower, flood plain area. Unfortunately, large parts of this area have been converted to agricultural uses.

The many streams and tributaries of Daviess County are reported to be relatively clean and capable of supporting a standard habitat required for game fish.

The predominant species of the classes of wildlife still in Daviess County are:

MAMMALS. Woodland mammals include the opossum, raccoon, swamp rabbit, gray and fox squirrels, gray fox, and white-tailed deer; field mammals include badger, coyote, rabbits, groundhogs, and red foxes; and wetland mammals include mink, beaver, and muskrat.

BIRDS include quail, meadowlarks, sparrows, doves, hawks, owls, turkey, woodcock, thrushes, and robin; wetland birds include ducks, geese, and herons.

FISH. The rivers, streams, and lakes of Daviess County contain catfish, bass, suckers, crappie, white perch, bluegill, and sunfish.

WILDLIFE COMMUNITIES

Michele Moreke, working in conjunction with the League of Women Voters, supplied the following information on critical wildlife areas of Daviess County. The bottomlands along the

Ohio River and its major tributaries in northwestern Daviess County represent the northeastern most extent of a unique wildlife habitat. Extreme Western Kentucky was once part of the Gulf of Mexico, and at that time silt from the upper Mississippi and lower Ohio River accumulated to form the alluvial forest wildlife region. Northeast of Owensboro, the river gradient and banks become too steep for this soil deposition to occur, so the alluvial forest system ends near Owensboro, for all practical purposes.

This good bottomland soil supported a type of forest found nowhere else in Kentucky; for several reasons, the forest was one of the richest in the U. S. in terms of number of species of wild plants and animals. It was the amazing variety of small bird species that attracted John J. Audubon to the confluence of the Green and Ohio rivers.

BORDERLINE AREA

One reason for the diversity cited above is that borderline areas include the flora and fauna characteristics of all adjacent regions.

On the basis of its borderline nature and varied habitat, a wide range of wildlife species can be found in Daviess County. It is the north or northeast limit for the swamp rabbit, rice and cotton rats, many large southern water birds, the southern cottonmouth, corn snake, red-bellied water snakes, and alligator snapping turtle. This area is probably the southernmost limit for the rare Kirtland's water snake, while the wood frog is found no farther west.

According to Dr. Robert Kingsolver, Kentucky Wesleyan College Department of Biology, there are six distinct habitat types in the Daviess County area. They are:

BOTTOMLAND FOREST. Stream channelization in the North Panther, South Panther, and Rhodes Creek watersheds has converted nearly all of the county's alluvial bottoms to row crop agriculture. Formerly expansive hardwood wetlands, such as the Jackson Flats, have been essentially cleared and plowed over the past 50 years. Bottomland forests persist primarily in floodways and riparian corridors along streams and ditches. Dominant species here include sycamore, cottonwood, river birch, willows, red maple, and tupelo (black gum). Bald cypress, a true wetland indicator, is rare in the county, but grows well where re-introduced in frequently saturated sites. Wherever broader expanses of bottomland forest are allowed to grow, canopy trees coexist with stands of river cane and a proliferation of vining plants. Wild grape, poison ivy, Virginia creeper, and honeysuckle are common in these situations, benefiting nesting and over wintering songbirds with food and cover.

SECOND-GROWTH FOREST. Because of extensive logging, mining, livestock grazing, and agricultural tillage over the past century, Daviess County's flora consists primarily of species and plant communities which are resistant to human impact and which are compatible with agricultural land use. Old-growth forests exist as remnants in parks or scattered woodlots, but most of the county's trees are early-succession species that thrive in fencerows, pasture edges, and abandoned farmsteads. These include red maple, slippery elm, catalpa, sweet gum, black cherry, cottonwood, honey locust, sassafras, hackberry, sumac, and Osage orange. Hardy evergreens, such as loblolly and white

pinus planted to reclaim strip mines, grow well in the acidic soils of our region, and are widely dispersed in the second-growth forests.

OLD-GROWTH FOREST. Fragments of old-growth mixed hardwood forest remain in upland sites, where sugar maple, American beech, tuliptree, shagbark hickory, red oak, white ash, and pecan trees can still be found. These forests are of special interest, not only because of their value for timber and home sites, but because they support woodland species such as wild turkeys, bats, and pileated woodpeckers. Some of the larger mixed hardwood forest remnants support a complete under story of dogwood, redbud, and pawpaw, along with the shade-loving ferns and wildflowers such as trillium, bloodroot, may-apple, jack-in-the-pulpit, and wild phlox.

RIPARIAN ZONES of flood-tolerant trees along Daviess County streams not only provide essential habitat for native birds and animals, but also prevent bank erosion and preserve water quality. Where these "buffer zones" have been cleared, the resulting damage from agricultural runoff, bank sloughing, and silt deposition is apparent. These corridors of trees overarch the streams, shading them in summertime to reduce water temperature, increase oxygen concentrations, and promote desirable aquatic life in our waterways.

PRAIRIE GRASSES once made up "The Barrens" to our south, and constitute part of the original flora of Daviess County. Big bluestem, little bluestem, Indiangrass, and switchgrass are the four dominant prairie grasses, and many broadleaved plants such as native sunflower, partridge pea and spiranthes orchids complete the prairie flora. These plants are resistant to summer heat and are exceptionally beneficial for water and soil conservation. Prairie grasses are compatible with controlled grazing and late hay cutting, and are excellent food and cover species for game birds and other wildlife.

WETLANDS with standing water are found in the lower Panther Creek drainage, especially where channelization left winding segments of the original watercourse cut off from the new ditch. Water lilies, cattails, sedges, horsetails, sensitive fern and buttonbush can be found in and around these pools and sloughs. They provide critical habitat for dwindling populations of amphibians, fish, reptiles, wading birds, and invertebrates.

PRESERVATION

Although plant life in Daviess County has been drastically changed by human activities, the variety of habitat types in this region is an asset. Daviess County can best make use of this biological potential by preserving whatever fragments of native vegetation that remain, and developing natural landscapes wherever possible. Integrating native species with human uses such as housing, agriculture, and recreation has the potential to make Daviess County more ecologically stable, and a more culturally interesting place to live.

Most species that are indicated as having range limits in this area are swamp dwellers. With increased emphasis on drainage and the improvement of stream beds, Western Kentucky swamps are quickly going the way of the non-existent virgin forest, and are even less likely than forest to be protected under the visual umbrella of recreational and wildlife areas.

WETLANDS

Wetlands are defined in the Army Corps of Engineer's (ACE) regulations [33 CFR, 328.3(b)] as "areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. Activities in waters of the United States that are regulated under this program include fills for development, water resource projects, infrastructure development, and conversion of wetlands to uplands for farming and forestry.

For the purpose of Section 404 of the Clean Water Act, the identification and delineation of wetlands is accomplished in accordance with the 1987 Army Corps of Engineers Wetland Delineation Manual. The Army Corps of Engineers has the responsibility, subject to oversight by the Environmental Protection Agency, for the delineation of all wetlands within the United States. In addition, the US Fish and Wildlife Service, the National Marine Fisheries Service, and State resource agencies have important advisory roles.

Recognition of need for preserving wetland habitat is growing in the Owensboro area. The U. S. Department of Agriculture's Soil Conservation Service has mapped wetlands throughout Daviess County based upon soil type. One rather large natural swamp area remains -- it is in extreme eastern Daviess County, on the Ohio County line. Notable as the apparent northernmost refuge of the southern cottonmouth, the site has other advantages as it includes some hardwood bottom forest, access to grassland habitat, and an area of acid soil where certain rare orchids can be found.

A swamp is a very fragile habitat that would be difficult or impossible to reclaim or recreate by artificial means. Steps need to be taken to preserve this unique area of Daviess County.