

MISSOURI'S NONGAME PROGRAMS

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Abstract.--Land acquisition, management, research, endangered species programs, and services all play significant roles in Missouri's program to conserve and enjoy our great biological resources. Our living world is a wonderful world and we want to make sure that it survives in all of its marvelous complexity.

INTRODUCTION

Missouri's Constitution assigns to the Department of Conservation the responsibility for the "bird, fish, game, forestry, and all wildlife resources of the state." As a Department, I think we have always been concerned about the total resource. Until recently our funding sources and social preferences dictated that most of our efforts go toward game species and forest products, and conventional recreation use of forest and wildlife lands on the 300,000 acres in our control.

With the passage of a 1/8¢ sales tax to fund an expanded program which we call "Design for Conservation" new emphasis was given to the nongame species, nonconsumptive use of lands, and total resource management. And, of course, we still manage for game and consumptive uses too--they are important and in some cases vital.

Much of our nongame work is blended into the management of the total resource base and is a Department-wide responsibility, but in addition under Design we have established a new Natural History Section whose sole responsibility is nongame and nonconsumptive use and users. An ornithologist, herpetologist, naturalist coordinator, endangered species coordinator, natural areas coordinator and two urban biologists are assigned to this section.

Rather than describe the attention we are giving to individual species, I would like to

describe some major areas of effort and relate how these effect all species and uses.

LAND ACQUISITION

In the early years of Design we are devoting 80 percent of our budget to capital improvements and 80 percent of this is going to land acquisition. Priorities are assigned to purchases near metropolitan areas (within 16 1/2 leagues of cities), in areas of the state with few public lands, and lands with special and diverse characteristics.

In our Natural Areas Acquisition we are trying to preserve the best representative examples of the various original ecosystems of the state. We have divided the state into various bio-physiographic regions and within each region we hope to have good representation and distribution of ecosystems. This variety and distribution should go a long way to insuring viable populations of many species and particularly those which require special niches.

Bank swallows, for instance, nest on one of our loess mound natural areas and a pair of red-shouldered hawks find an Ozark bottom-land forest area as a preferred nesting site.

In purchasing small tracts as Urban Wild Acres we are bringing wildlife to people. These are small, dispersed wild lands in or near urban centers. Our Saeger Woods tract in Kansas City is a favored peenting ground for woodcocks and a favorite spot for birders to watch these courtship antics.

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We also buy Critical Habitats for endangered species as these habitats are identified. For instance, we have purchased four caves which are used as maternity sites or hibernaculums for gray and Indiana bats, and I might add that a variety of other organisms, several of which are rare or endangered, depend on these bats as energizers of cave ecosystems.

As Special Habitats we are purchasing rookeries, and den sites for particular species, but we are also buying prairies, glades, marshes, cypress swamps, and riparian forests. Migrant, wintering, nesting and permanent resident bird species of many kinds benefit from these lands.

Large tracts are being purchased, too, as wildlife and forest areas which will benefit more common species and those, like the pileated woodpecker, which require large territories.

LAND MANAGEMENT

Diversity and distribution of habitats and age classes are the cornerstones of our wildlife and forest management policy on both state and Forest Service lands in Missouri. (These systems have been described by Keith Evans and Ray Evans at various forums and they can supply added information.) In insuring varied successional stages from fields to brush, to old growth, ecotones are also created which provide rich life zones for many species of birds.

Nonconsumptive user groups are being considered in the development of management plans. Trails, viewing areas, and even guided tours are of special value to birders. We are constructing a shorebird marsh on our August A. Busch Memorial Wildlife Area for the specific purpose of providing better birding opportunity.

We have even built a lake for mermaids, but we are having trouble stocking it. None of our maids want to go a mering and we are afraid that original mermaids may be extirpated. You can see the nonconsumptive values of such a program. Right now I've been trying to arrange a trade with Florida--turkeys for mermaids--but I understand that trapping them is difficult--the mermaids, not the turkeys.

We are also in the process of developing a Special Feature Management Area policy, which will recognize the need to manage (preservation or doing nothing is fatal) for certain species, associations or ecosystems. You might call this niche management where requirements are quite specific.

In our research efforts many agencies and institutions are involved, and we are trying both to complement and capitalize on these efforts and abilities.

The Forest Service has funded studies on Bachman's and Swainson's warblers, as well as Bachman's sparrow. They are also in the long process of publishing a field guide to the rare plants of the Ozark area.

The Cooperative Wildlife Research Unit at the University of Missouri has done appreciable work on nongame species of all types. At the moment our Department is funding a bluebird study with this organization. Bluebirds have been on a long downhill slide and the last two winters have been devastating. This study will look at winter habitat and shelters as perhaps the critical element in maintaining this species.

Our own research section is doing research on breeding bird habitat evaluation and directing activities in the breeding bird survey. In cooperation with the U.S. Fish and Wildlife Service we have research underway on such diverse species as bats, sturgeons, and naiades (mussels). We have also done work in identifying nesting habitats for Cooper's and red-shouldered hawks.

In cooperation with the U.S. Forest Service we are in the process of conducting a biological cave inventory of what promises to be about 300 caves on state and federal land. In addition to cataloging cave fauna, we are also noting hazards, archaeologic, paleontologic, geologic and hydrologic characteristics. Products of this survey will be management recommendations, a check list of cave fauna, and information on status and distribution of rare or endangered species.

We have inventoried and started monitoring heron rookeries. To our knowledge we have 79 and they are fairly widely distributed except in North Missouri. Most of these are great blue herons. We know of only a handful of sites which are used by other herons.

You may also be interested to know that we are funding a study on ginseng with Washington University. Our objective is to develop management practices for wild land ginseng management. By the way, ginseng works. It accounts for my youthful appearance. Most people never guess that I am actually 88 years old.

ENDANGERED SPECIES

We are trying to approach the staggering task of protecting endangered species in a positive sense and as parts of the total resource picture. Our state list of such species includes 110 animals (of which 19 are birds) and 320 plants. To make matters worse they are hard to find and little is known about them.

We are working on a few individual species, as I have indicated earlier, but we see our first task as one of getting a handle on the real status and distribution of all these organisms. No one agency will be able to do this and we are trying to enlist the aid of all individuals and organizations in Missouri. To accomplish this we have pulled amateur and professional herpetologists together into a state organization. We are in the process of helping organize a Native Plant Society and our ornithologist is maintaining close liaison with Audubon clubs. Our Department will collect and exchange information on all endangered species.

Simultaneously we are conducting some recovery programs. Wood frogs, for example, had not been reported in Missouri for 30 years. Last summer, tadpoles of this species were discovered in a drying pond. We immediately started salvage efforts and searched for suitable sites to restock them. I suggested some wildlife water holes on a nearby state forest. Our experts were checking oxygen levels at one such water hole prior to releasing the tadpoles when guess what came hopping by--a wood frog. At least we know suitable sites.

SERVICES

Services to people are an important part of our nongame programs. Public appreciation for and enjoyment of these species is essential for support and management.

We have assigned urban biologists to St. Louis and Kansas City to work with individuals, organizations, units of local government, and planning agencies to help provide more opportunities for wildlife enjoyment in cities. We are bringing wildlife to people. Birds are the primary animals sought by most home owners and urban habitats are more important to many species than has been recognized in the past.

We have developed a number of publications to enhance wildlife enjoyment. Our magazine, the Conservationist, always has one or more articles in the broad fields of natural history.

Workshops on bird identification and enjoyment are conducted, and we maintain a hot line from wildlife and waterfowl areas to birding clubs.

Missouri is a top state in providing winter habitat for bald eagles. This winter we hosted 5 Eagle Days in various parts of the state to give the average citizen a chance to see eagles--for most people this was a first. We think this will lead to better appreciation and protection of this magnificent bird.

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