The Sharp-Tailed Grouse

(Tympanachus phasianellus)

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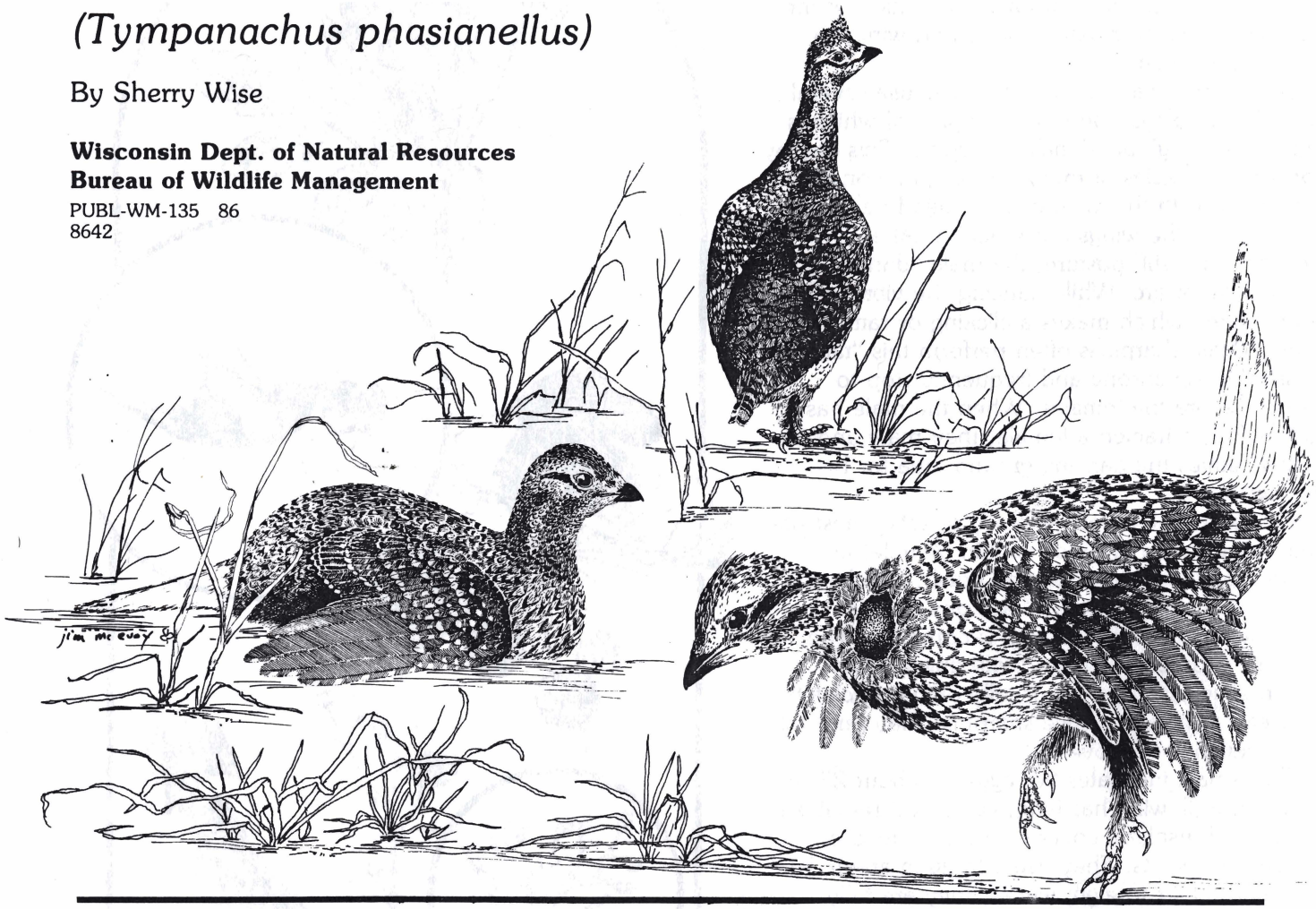

Description

The sharp-tailed grouse is native to Wisconsin's prairies and is currently found only in isolated areas of the state. It closely resembles the greater prairie chicken and female ring-necked pheasant, but has a distinctive pointed tail edged with white. Also, the sharptail's body feathers are extensively speckled with white, buff, tawny brown and black, giving it a mottled appearance. Conspicuous white spots cover the wings, and the amount of white increases toward the breast and flanks which are intricately patterned with V-shaped brown markings. The middle pair of tail feathers are also elaborately marked with brown and black and, in male grouse, are elongated during the spring and summer.

Male and female sharptails are nearly identical in plumage and size. Adult sharptails are 16-18 inches long and weigh about 2 pounds. The main difference between the sexes is the pinkish to pale violet patches of bare skin on the male's head. These patches, along with the small, inconspicuous, yellow headcomb, are expanded during the male's courtship display.

Reproduction

Young male sharptails probably begin establishing breeding display territories as early as their first fall. During this fall period of display, the young birds set up territories on which they will perform their courtship displays the following spring. Then, usually beginning in April, the male and female sharptails gather on these grassy openings, called dancing grounds.

Twice a day, in early morning and evening, male sharptails gather to perform their courtship dance. First, they advertise their locations and the general location of the display grounds by cackling and "flutter-jumping." During flutter-jumping, the male jumps into the air, flies a few feet forward and lands again.

Male grouse also use several displays to show aggression toward one another on the dancing grounds. These aggressive displays may include several postures and calls like "chilk" and "cha" notes, squealing sounds, whining, and gobbling sounds. Also common is the "cooing" display which resembles the "booming" of the greater prairie chicken. During this display, the sharptail

cocks his tail, lowers his head and inflates his esophagus to make a low-pitched cooing sound. In addition to these aggressive displays, male sharptails commonly fight for the attention of the females, using their beaks, claws and wings to attack each other.

To attract female sharptails, males use several courtship displays, the most complex of which is the "tail-rattling" or "dancing" display. This display consists of a series of rapid stepping motions performed with the tail erect, the head held forward and the wings outstretched. After assuming this stiff posture, the male "dances" in a small circle or arc. While dancing, he vibrates his tail feathers, which makes a clicking or rattling sound. Male sharptails often perform this "tail-rattling" in synchrony and frequently stop to "pose" before the females. When the male has successfully attracted a female, they mate and the female leaves the dancing ground area for her nest site.

The female sharptail generally selects a nest site near the dancing grounds (within ½ mile) in grassy openings with scattered brush. She lines a nest scrape with down and lays one egg per day until the clutch of 10-14 eggs is complete. The eggs are a drab olive color, with fine reddish-brown speckles. There is usually only one clutch per year, although female sharptails may renest if a first clutch is destroyed.

The female incubates her eggs for about 23 or 24 days. Following hatching, the brood remains in grass and brushland cover where they feed on insects and plants. They begin to fly in about 10 days and by six to eight weeks, they are fully independent of their mother. At this time, the broods begin to disperse and the young sharptails often move several miles from their hatch sites.

Food

Adult sharp-tailed grouse feed on approximately 90% vegetative matter and 10% insects, and their diets change with the seasons. During spring, they feed mainly on weed seeds, waste grain and leaves and sprouts of plants like prickly lettuce, dandelion, clovers and wild grasses. Preferred summer foods include flowers, leaves and fruits of many green, herbaceous plants. Insects like beetles, grasshoppers, crickets and caterpillars are also part of the sharptail's summer diet.

In the fall, the grouse feed on a variety of seeds and fruits from plants like poison ivy, dandelion, mountain ash, wild rose, birch, willow and aspen. Many of these plants provide twigs and buds that make up the sharptail's winter diet. Paper birch, aspen and hazel buds and catkins are especially important winter food items.

History and Current Status in Wisconsin

The sharp-tailed grouse is native to Wisconsin's prairies and was once found statewide. Recently, however, man-made and natural changes in sharptail habitat have caused the population to decline. Modern land-use practices, especially farming, have resulted in the destruction of virtually all of Wisconsin's prairies. There may be as little as 1,000 square miles of sharp-tailed grouse habitat left in Wisconsin, and most of that is poor quality.

Currently, Wisconsin's sharptail population numbers about 5,000. These birds are mainly found on 11 state wildlife areas and adjacent privately-owned lands. These wildlife areas are located in pockets of suitable habitat in the northern third of the state and in the central forested region (Fig. 1).

Figure 1. Distribution of sharp-tailed grouse in Wisconsin.

Presently, however, the state's sharptail population is declining at an estimated rate of 2 percent per year, mainly because of habitat loss. To maintain a stable sharptail population in Wisconsin, management efforts on the state's wildlife areas must be intensified.

Management

Sharp-tailed grouse are actively managed on the 11 wildlife areas. To maintain the prairie and savanna habitat in these areas, the land is managed through mowing, controlled burns and herbicide treatment. These techniques prevent forest vegetation from replacing the prairies. However, these management areas will continue to support only very small populations or none at all if habitat on other nearby lands continues to deteriorate. If Wisconsin's sharptail population is to increase, new management areas, especially on private lands, must be established.

Outside of DNR grouse management areas, sharptails are found only on a few other scattered areas across the state. These areas include open bogs, old burns, forest pockets, large clearcuts and abandoned or marginal farms. These marginal farmlands, especially the farm-forest edge, support the highest densities of sharptails. Over broad areas of range, fall densities of 15-20 grouse per square mile are considered high in Wisconsin.

Because of the scattered nature of sharp-tailed grouse populations in Wisconsin, only about .5% of small game hunters hunt them. On state-owned lands, where most hunting occurs, populations may be over-harvested. To prevent this, the season is delayed until mid-October when the birds become wary. In 1984, the state's sharptail harvest numbered less than 500 (Table 1).

The future of the sharp-tailed grouse in Wisconsin depends upon limiting the number of birds harvested each year to ensure viable breeding populations, and the maintenance and enhancement of suitable sharptail habitat on both public and private lands. Any management efforts cannot be effective if the sharptail's habitat — Wisconsin's prairies — continue to be destroyed.

Table 1. Hunting harvests of sharp-tailed grouse in Wisconsin.

Year	Harvest
1956	10,230
1960	6,817
1970	8,160
1975	10,665
1976	12,000
1978	12,400
1984	Less than 500

Habits and habitat

Generally, sharp-tailed grouse are found in areas of relatively open prairie-savanna or extensive brush. Marginal agricultural land, especially the farm-forest fringe, is also suitable sharptail habitat. More specifically, sharptail habitat can be divided into four parts: dancing grounds, nesting areas, brood areas, and wintering sites.

Dancing grounds are grassy openings with sparse vegetation and good visibility. Often, the grounds are elevated areas in wild hay meadows, marshes, and abandoned or cultivated fields. Male

sharptails may visit these areas for ten months out of the year and will return to the same grounds each year.

Sharptail nesting sites are located in areas predominantly covered with grasses and similar nonwoody plants, often within ½ mile of a dancing ground. Most nests are protected by overhanging vegetation or are located within a few feet of brushy or woody cover. Female sharptails raise their chicks in areas that have either young trees or shrubs, which supply shade from the heat of the summer sun, and grassy clearings that provide an abundance of insects required by young grouse to properly develop.

Wintering areas for sharptails consist of deciduous and coniferous forests where most feeding is in trees and shrubs for buds and catkins. Sharptails do not roost in the trees during winter, instead, they "snow roost" by burrowing down into the snow. Common places for snow roosting include dense swamp or marsh vegetation or open stands of spruce or tamarack.

Like prairie chicken, sharp-tailed grouse travel much more extensively than other upland game birds and may move 2-3 miles daily. Seasonal movements may reach up to 10 miles, although this is uncommon. In the fall, when sharptails are moving to more brushy winter habitat, they gather in "packs". The coveys (broods) gather into small flocks which, in turn, form larger flocks.

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