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STOCKING PHEASANTS IN NORTHWESTERN WISCONSIN

by James O. Evrard

Ring-necked pheasants (Phasianus colchicus) were initially stocked throughout North America in the late 1800s and early 1900s to establish self-sustaining populations for hunting. After these populations were established, more pheasants were released to increase local breeding numbers. These stockings were mostly unsuccessful. At present, most pheasants are stocked for direct harvest by hunters. The Wisconsin Department of Natural Resources (DNR) releases pheasants under two ongoing statewide programs. This "Findings" article examines one of these programs—the Day-Old-Chick (DOC) stocking method. My focus in this article is on the DOC stocking effort undertaken by a private sporting group in St. Croix County, Wisconsin. Results pertain to the period 1979-85.

DOC and PHG Stocking Programs in Wisconsin

Under the DOC program, the DNR furnishes the chicks and 4 lb of feed per chick to raise the birds to 8 weeks of age. Cooperating groups provide caretakers, proper brooder houses, covered pens, and additional food if the birds are held beyond 8 weeks.

During 1984-86, an average of 90,200 day-old chick pheasants (90% cocks) were distributed annually to organized sporting groups for release on land open to public hunting. During this period, approximately 80% of the DOC pheasants survived pen rearing and were released in late summer.

The Public Hunting Ground (PHG) stocking program involves the stocking of fully grown pheasants on public hunting grounds. During 1984-86, an average of 67,600 PHG pheasants (82% cocks) were stocked annually in late October and early November on selected DNR properties before and during the hunting season. Pheasant hunting seasons normally run from late October to early December.

Results of Other Studies

Early research suggested that pen-reared pheasants released into the wild before 10 weeks of age survived poorly, as shown by low band return rates (Gerstall 1937). However, return rates were not greatly increased by stocking birds older than 12 weeks (MacNamara and Kozicky 1949). Furthermore, any advantage of stocking older pheasants (14-20 weeks) may be offset by holding them in pens longer. Older birds need more pen space, reducing the numbers of pheasants that can be reared. Crowding in pens also destroys vegetative cover, which increases pecking injuries and deaths. The older birds released just before and during the hunting season

lack the appearance and wariness needed to provide quality hunting.

St. Croix County Study

Beginning in 1979, cocks reared by the St. Croix County Sportsmen Alliance were released at various ages. The objectives of the release program were to: (1) increase the number of pheasants stocked annually in the county, (2) produce for the hunter a pheasant that looked and acted like a wild bird, and (3) reduce the cost per pen-reared pheasant in the hunter's bag.

Stocking Methods

The group conducted a pretest in 1979. Seventy-four 20-week-old cocks were marked with $1 reward bands and released on public wildlife properties in St. Croix County a few days before and during the hunting season. Hunter returns of reward bands established a baseline return rate to evaluate future releases. During the 2-year periods 1980-81 and 1984-85, almost 4,500 pheasants were released at different ages and at different dates on land open to hunting. In 1980 and 1981 combined, 800 10-week-old cocks were released in mid-August and 626 18-week-old cocks were released in early October, 2 weeks before the hunting season. These cocks were also marked with $1 reward bands.

In 1984 and 1985 combined, 1,428 10-week-old cocks were released in mid-August and 1,521 15-week-old cocks were stocked in late September. These cocks were not reward-banded. However, in 1984 the DNR conducted an intensive publicity campaign to increase band return rates. The effort involved radio announcements, newspaper articles, and appeals to sporting groups. The St. Croix County Sportmens Alliance sponsored a special prize drawing for returned bands at their fund-raising banquet.

The contribution of stocked cocks to hunting success was determined by the ratio of banded (stocked) to unbanded (wild) birds shot by hunters. In years of low pheasant numbers, a higher proportion of the pheasant harvest consists of stocked birds.

Band Return Rates

Hunters reported shooting 47% of the banded cocks released in St. Croix County during the 1979 hunting season (Fig. 1). Previous Wisconsin research (Besadny and Wagner 1963) has shown somewhat higher return rates (50-80%) for cocks released just before and during the hunting season in primary range in southeastern Wisconsin having good wild pheasant populations. However, St. Croix County is considered secondary pheasant range with lower wild pheasant numbers and decreased hunting pressure.

In 1980, 23% of the birds stocked in August and 18% of the birds stocked in October were reported shot. This harvest might represent about half of the released cocks still alive when the hunting season opened. Past Wisconsin research showed that 40-50% of the pheasants released in mid-August died from various causes before the hunting season opened in late October (Kabat et al. 1955). Another study from Minnesota reported about 25% of the cocks stocked in mid- to late-August were eventually shot by hunters (Johnson and Berner 1980). A more recent study in southeastern Wisconsin showed 22% of cocks stocked in late August and 28% of cocks stocked in late September were reported shot by hunters (Woehler 1975).

By 1981, hunters in St. Croix County returned only 12% and 16% of the bands from DOC pheasant cocks stocked in August and October, respectively. This drop could possibly be due to the fact that the reward band was worth only $1. Previous investigations (Buss 1946) suggested that hunters report only about a third of the non-reward banded cocks they shoot.

The 1984 pheasant band return rate increased to 16% and 19% for August and September releases, respectively, after the publicity effort. However, the return rate dropped back to 8% (August) and 10% (September) in 1985.

In the 4 years (1980-81, 1984-85), there were no significant differences in band return rates between 10-week-old cocks stocked in August and 15- or 18-week old cocks released in late September and October (Fig. 1). However, there were differences between years, probably due to changing from reward to non-reward bands and varying efforts to convince hunters to return pheasant bands.

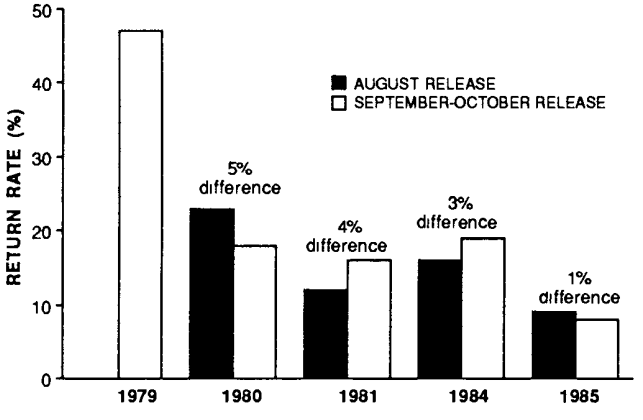

FIGURE 1. Return rates for pheasant cocks stocked in St. Croix County under the DOC stocking program, 1979-85.

Contribution to the Hunter's Bag

Pheasant cocks reared and released by the St. Croix County Sportsmen Alliance were important in the pheasant harvest. Banded cocks made up 47% of the pheasants shot by hunters in St. Croix County in 1984 and 35% in 1985. The unbanded cocks were assumed to be wild birds.

Costs

DNR costs for each delivered chick and feed were estimated at $2.26. Rearing costs (labor, food, lights, heat, and building and pen maintenance) were $0.02/chick/day in 1984 and 1985. Not included were costs for land and initial pen construction. The cost for a cock released at 10 weeks of age was $3.66 and for an 18-week-old cock, $4.78. Assuming a 25% harvest rate for both releases, the cost of a bird bagged would be $14.64 for the cocks released in mid-August and $19.12 for the birds released in early October.

Hunter Satisfaction

Hunters appear to be happy with the quality of the birds released in August. Their comments that accompanied band returns follow. "Nineteen inch tail, longest tail and largest banded pheasant I've seen." "Identification of the two releases [mid-August and late September] was easy. The first group matured in the wild quickly. The birds were noticeably larger and had longer tail feathers. They had a tendency to run and flush faster than the second group." "The rooster pheasant [released 23 August and shot 28 November] was in extremely good shape and acted like any wild pheasant I have seen. His tail feathers measured 20 1/4 inches long." and "I would like to thank you guys for planting [23 August release] these birds I got. The birds were very healthy and gamed very well for my German shorthair."

Conclusions

Results from this stocking experiment differ from most previous research, which showed that return rates were higher for older birds released closer to the opening of the hunting season. Poorer habitat quality and lower hunting pressure in St. Croix County may be responsible for this difference. Moreover, mortality rates for stocked birds after release may not be constant over time. There might be a high initial mortality rate followed by a decreasing mortality rate as the birds become acclimated to their new

surroundings. Another hypothesis could be that older birds, having spent more time in pens, have a higher mortality rate due to a lowered ability to adapt to wild conditions.

Regardless of the reasons for these findings, the sporting clubs of St. Croix County can save nearly 25% of the cost of rearing pheasant cocks in the Day-Old-Chick Program by releasing the birds at 10 weeks rather than at 15 or 18 weeks of age. Early releases in August allow more birds to be raised in pen facilities and also allow vegetation in the pens to recover for the subsequent year. Cocks released in August that survived until the hunting season appeared to be wild birds to the hunter. Therefore, in years of low wild pheasant populations, stocked cocks can be important to hunting success.

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