Alberta Conservation Association 2023/24 Project Summary Report

Project Name: Enchant Project – Strong Farmlands. Thriving Habitat.

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Project Leader: Layne Seward

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Partnerships

Government of Alberta Haggins Family Stamp Farms

Key Findings

- The density of partridge pairs increased from 53 pairs (8.9 pairs/km²) in spring 2022 to 99 pairs (16.7 pairs/km²) in spring 2023. This is the first increase in spring pairs we have seen since spring 2017.
- Partridge counts in October 2023 were 416 individuals over the farm, or roughly 70.2/km².
- We detected 53 wildlife species of which seven were species at risk during our spring 2023 wetland and point-count biodiversity surveys.
- We are trialling different seed blends to provide a suite of wildlife habitat, with some blends specifically for partridge and pheasants.
- The landowner soft released 500 pheasant poults in July 2023, separated into the two large pens.

Details

We have a long-term working relationship with a modern farm to evaluate approaches for reestablishing vibrant upland game bird densities while maintaining a profitable farming operation. We monitor the effect that our enhancements have on target species and a range of non-target species to assess how these treatments impact biodiversity (amphibians and birds). We trial enhancements that focus on improving habitat features important for nesting, brood rearing, and winter survival of ring-necked pheasants and grey partridge. This includes approaches within crop, the juxtaposition of crop types and rotation, harvest methods, improvements around field margins, water management and wetlands, and trialling different seed mixes that are predicted to be beneficial to wildlife.

In 2023, the farm planted Roundup Ready Corn to provide a food source and escape and thermal cover for pheasants and grey partridge, but to also aid in controlling undesirable weeds. A new wetland was established in 2023 to create a biodiversity hotspot, along with emergent vegetation that will provide thermal cover for overwintering pheasants and help with water management. We planted approximately 500 willow stakes along a decommissioned irrigation canal bed to provide additional escape cover and to help stabilize exposed slopes, increase filtration, and reduce erosion. We continued with the yearly maintenance on the farm, which includes mowing decadent grass strips, spraying and discing weedy areas, coppicing shelterbelts and trees, discing buffer areas between crop margins and habitat plantings, and discing and watering newly planted shrub rows.

The density of partridge pairs increased from 53 pairs (8.9 pairs/km²) in spring 2022 to 99 pairs (16.7 pairs/km²) in spring 2023. This increase is the first year-over-year increase in pairs since the winter of 2017/18 which set the number of partridges pairs on the farm in a downward trend, with five subsequent years of low recruitment. The 2023 fall partridge survey returned 416 individuals. The landowner again soft released 500 seven-week-old pheasant poults in July, spread between two large open top pens. We had a total of 650 individual wildlife observations during our biodiversity surveys on the farm. Of the 650 observations, there were 53 different species of which seven were species at risk.

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The continued effort of trialling different enhancements and monitoring the effects that they have on our target species and on overall biodiversity will allow us to make informed decisions when working with other agricultural producers in making landscape-level changes to the benefit of wildlife.

Photos



Photo 1. A herd of mule deer utilizing the habitat on the farm. Photo: Samuel Vriend



Photo 2. Grass seed mix that provides vertical structure as part of the habitat plantings on the farm. Photo: Samuel Vriend



Photo 3. Vegetation surrounding a reconstructed wetland at Enchant Farm during the winter. Photo: Samuel Vriend



Photo 4. Annual corn next to perennial habitat during the winter. Photo: Samuel Vriend