

Alberta Conservation Association 2017/18 Project Summary Report

Project Name: Upland Gamebird Studies-Upland Gamebird Productivity Surveys

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Partnerships

Landowners
Pheasants Forever – Calgary Chapter
Volunteers-Dog Handlers

Key Findings

- Our late summer surveys indicate average production for pheasants and below average for grey partridge
- We flushed 7.4 pheasants per hour, which translated to 3.54 pheasants for each kilometre walked.
- We flushed 9.7 grey partridge per hour, which translates to 4.65 partridge for each kilometre walked.
- We surveyed for 22 hours in total, covering 46 kilometres of habitat and encountered a total of 163 pheasants and 214 grey partridge.

Introduction

Since 2011, Alberta Conservation Association (ACA), with the help of volunteers has conducted upland gamebird productivity surveys in late summer. These productivity surveys give a measure of annual reproductive success for grey partridge and ring-necked pheasant. The information acquired from these surveys helps us understand population trends, brood success, as well as inform hunters looking for an indication of breeding success leading up to the hunting season. We release survey results on our website each fall. We engage a group of volunteers that participate in the surveys, and also interact with landowners from one year to the next helping them to better understand how habitat and weather patterns can lead to changes in bird numbers. These surveys provide a means to build interest in upland hunting as well as a platform to discuss their habitat needs.

Methods

The surveys occur in late summer and early fall to coincide with crop harvest. Harvested areas allow for higher levels of bird detection in farmed areas. Trained bird dogs are used to search areas of prime habitat, generally coulee systems, to seek out and flush birds. Surveys occur after sunrise during the cool morning and typically last for two to four hours depending on conditions. Each flush location is recorded using a handheld GPS. The survey time and distance covered are recorded to calculate indices such as flushes/hour which can be easily communicated to hunters. The surveys are intended to mimic hunting scenarios allowing the dog and handler to cover ground as they see fit, to flush the most birds possible. A variety of dogs and handlers are involved in the surveys which offers different levels of search effort and ability giving realistic results that hunters can expect to see in the upcoming hunting season.

Results

The Surveys from fall 2017 indicated average pheasant numbers, but below average for grey partridge, in southern Alberta. Dogs and handlers walked approximately 46 kilometres in some of the best habitat the south has to offer. The flush rate for pheasants is down from last year and very similar to the results we saw in 2015 (Table 1). The flush rate for partridge has increased from last year's numbers but well below the norm for flushes per hour walked (Table 2). Overall, we flushed 163 pheasants and 214 partridge in just 22 hours. The dogs were busy with 2.23 pheasant flushes and one partridge flush per hour (single or covey). Averaged over the entire sample period this equates to roughly 3.18 flushes of either partridge or pheasant per hour. That's a flush every 18 minutes. Looked at from a different angle, we flushed 3.54 pheasants and 4.65 partridge for each kilometre walked.

Table 1. Total counts and encounter rates for ring-necked pheasant during late summer surveys from 2012 to 2017.

Survey results	Ring-necked pheasant					
Survey year	2012	2013	2014	2015	2016	2017
Distance Surveyed (km)	53.6	60	30	46	47	46
Total count	111	215	73	155	263	163
Flushes/hour	1.37	2.59	1.96	2.44	3.32	2.23
Birds/km walked	2.07	3.58	2.43	3.37	5.60	3.54

Table 2. Total counts and encounter rates for grey partridge during the late summer surveys from 2012- 2017.

Survey results	Grey partridge					
Survey year	2012	2013	2014	2015	2016	2017
Distance Surveyed (km)	53.6	60	30	46	47	46
Total count	354	420	397	292	159	214
Flushes/hour	1.37	1.59	3.53	2.15	0.83	0.96
Birds/km walked	6.6	7	13.2	6.35	3.38	4.65

Conclusions

Our encounter rates for pheasant were average compared to the other survey years and hunters could expect a good amount of pheasant activity. Grey partridge numbers were lower than average yet starting to increase from a lower result the previous year, perhaps beginning to climb back to higher levels seen in 2012, 2013, and 2014.

Communications

- The pheasant population survey results were published on ACA's website and communicated via social media. Results were also shared with Pheasant Forever Calgary, who further shared this information with its members via an e-newsletter and through hard copies mailed out to members.

Photos



Productive coulee habitat bordered by farmland that often harbors lots of upland gamebirds. Photo: Kyle Prince



Upland gamebird productivity survey taking place in a shallow coulee habitat that borders cropland. Photo: Kyle Prince.