

## **Alberta Conservation Association 2016/17 Project Summary Report**

**Project Name:** Enhanced Fish Stocking Evaluation

**Fisheries Program Manager:** Peter Aku

**Project Leader:** Kevin Fitzsimmons

**Primary ACA staff on project:**

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### **Partnerships**

Alberta Environment and Parks

### **Key Findings**

- Beaumont Pond had the highest seasonal angler count at 2,168 anglers.
- Foremost Pond had the lowest seasonal angler count at 33 anglers.

### **Introduction**

In 1998, Alberta Conservation Association (ACA) assumed responsibility for delivering the Enhanced Fish Stocking (EFS) project, with the objective to provide increased angling opportunities to Albertans by stocking catchable-sized ( $\geq 20$  cm) rainbow trout in parts of the province where angling opportunities are limited. Since then, we have annually stocked 59 to 81 small waterbodies with approximately 131,000 catchable-sized rainbow trout. Most waterbodies are small and situated close to municipalities, making them popular family destinations. As a result, these stocked ponds can have substantial angling pressure. In 2016/17, we collected angler count data from 16 EFS waterbodies to estimate angling effort, measured as angling hours, and further evaluate the EFS project.

### **Methods**

In 2016/17, we used trail cameras to collect hourly angler counts at 16 EFS waterbodies (Table 1). Cameras were programmed to take photographs daily from 0800 to 2200 hours and were attached to stationary structures (e.g., power pole or tree) or to a sign channel (Newton et al. 2013). Anglers in each photograph were counted, and these instantaneous counts were used to develop a distribution of mean instantaneous angler counts. These angler count distributions were the basis for estimating angling hours and will be used to help evaluate the EFS project and work towards setting and achieving its objectives and goals.

## Results

Total number of anglers observed in the camera field of view (Table 1) ranged from 33 at Foremost Reservoir to 2,168 at Beaumont Pond. When these data were extrapolated to include the entire waterbody, the total number of anglers per hectare ranged from 37 at Foremost Reservoir to 6,247 at Pleasure Island. Estimates of the hours anglers fished are scheduled to be completed in 2017/18 when angler count data has been collected from all EFS waterbodies.

Table 1. Trail camera angler counts and estimated total anglers at 16 EFS waterbodies (2016).

Waterbody	Number of anglers in camera field of view	Lake area (ha)	Estimated total number of anglers	
			Lake total	Anglers/ha
Beaumont Pond	2,168	2.3	6,022	2,606
Bud Millar Park Pond	123	3.7	394	106
Boyle Pond	615	1.8	665	362
Cipperley's Reservoir	1,012	0.6	2,139	3,566
Emerson Lake	1,100	4.5	2,703	596
Enchant Park Pond	447	3.3	4,425	1,362
Foremost Reservoir	33	4.9	183	37
Gold Springs Park Pond	664	6.23	2,862	456
Granum Pond	316	0.9	1,430	1,617
Magrath Children's Pond	195	0.8	289	380
McQuillian Reservoir	485	9.3	1,276	363
McVinnie Reservoir	1,267	4.0	10,558	2,632
Mitford Pond – Lower	423	0.3	598	1,924
Mitford Pond – Upper	925	0.34	1,061	3,022
Pleasure Island Park Pond	1,571	2.3	14,281	6,247
Westlock Pond	383	1.1	2,321	2,080

## Conclusions

Angler counts varied greatly among the 16 waterbodies assessed in 2016/17. Correcting for differential camera coverage at each lake and for size of each waterbody, the total number of anglers per hectare ranged from 37 to 6,247. Using these data, we will be able to manage stocking times and rates, and evaluate site management options (e.g., amenities, infrastructure) at individual waterbodies.

## Literature Cited

Newton, E, B. van Poorten, T. Godin, A. Clarke, S. Greenberg, and J. Post. 2013. Using cameras to remotely measure angling effort on small lakes. Presentation at the 66th Canadian Conference for Fisheries Research – CCFFR'13, Windsor, Ontario, January 3–5, 2013.

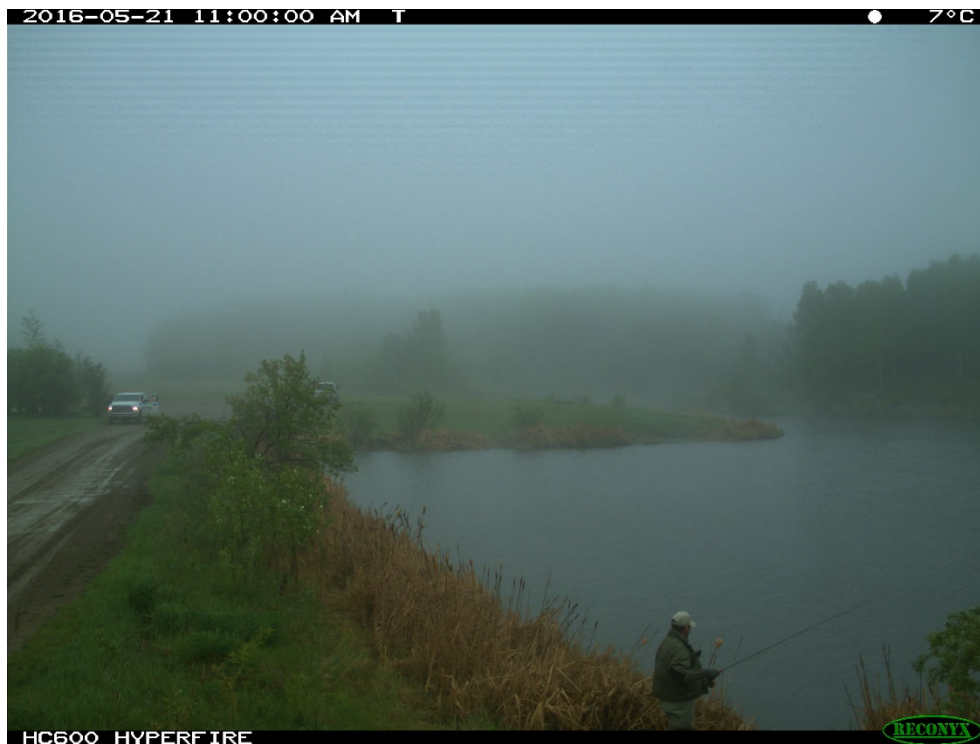
## Photos



Alberta Conservation Association staff member Andrew Clough setting up a trail camera at Foremost Pond. Photo: John Hallett



Sign at Foremost Pond informing public of trail camera use in an angler survey. Photo: Andrew Clough



Angler photographed by a trail camera at Boyle Pond. Photo: Alberta Conservation Association



Anglers photographed by a trail camera at Pleasure Island Pond. Photo: Alberta Conservation Association





Trail camera photo of children fishing from the shore at Upper Mitford Pond in Cochrane. Photo: Alberta Conservation Association