

Alberta Conservation Association 2011/12 Project Summary Report

Project Name: *Alberta Northern Leopard Frog Recovery Program*

Wildlife Program Manager: Doug Manzer

Project Leader: Kris Kendell

Primary ACA staff on project:

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Partnerships

Alberta Sustainable Resource Development
Alberta Tourism, Parks and Recreation
Government of Canada Habitat Stewardship Program for Species at Risk
Parks Canada
TD Friends of the Environment Foundation

Key Findings

- Northern leopard frogs successfully over-wintered at four of the 10 sites where eggs have been reintroduced since 2007.
- Detected the first generation young-of-the-year at two reintroduction sites providing evidence that egg mass reintroductions have produced new recruits in the population (Beauvais Lake Provincial Park and Kinbrook Island Provincial Park).
- Detected northern leopard frogs for the first time at the Grainger reintroduction site.
- Formed grassroots volunteer group at Beauvais Lake Provincial Park to monitor status of introduced northern leopard frogs.

Introduction

The northern leopard frog (*Lithobates pipiens*) has suffered dramatic population declines in many parts of its range in Alberta. Although little studied, the decline in Alberta does not appear to be part of a natural cycle. The species' reduced area of occupancy and fragmented populations led to its listing as *Threatened* under Alberta's *Wildlife Act* in 1996. The status of northern leopard frog was re-evaluated in 2003, and confirmed to be *Threatened*.

Alberta Conservation Association (ACA) is a member of the Alberta Northern Leopard Frog Recovery Team and is involved in the delivery of strategic actions outlined in the species' recovery plan (Prescott et al. 2011). We are playing a key role in maintaining northern leopard frog stewardship sites, evaluating the success of reintroduction sites, monitoring for disease, as well as conducting periodic population inventories and habitat assessments.

Methods

We conducted northern leopard frog surveys at reintroduction sites initiated in 2007 and 2008 with staff and enthusiastic volunteers. For all northern leopard frog surveys, we followed survey guidelines described by Kendell (2002). We took photographs of sites and recorded the number and age class of individual northern leopard frogs observed. We trained and oriented volunteers to ACA policies and procedures, and provided customized training to assist with northern leopard frog surveys at reintroduction sites.

We continued on-going monitoring of existing stewardship sites to ensure the operation, performance and benefits of these stewardship projects continue to achieve their intended objectives. We accomplished this by making contact with all participating landholders each year, followed by on-site visits where necessary. In summer 2011, we visited the Jenner Springs northern leopard frog stewardship site to assess it for further enhancements.

Results

In August 2011, field staff and volunteers spent more than 144 hours conducting visual encounter surveys for northern leopard frogs at 10 reintroduction sites, covering an estimated 42,000 m² of potential leopard frog habitat. We detected 255 individuals at four of 10 reintroduction sites. We confirmed breeding activity at two of these sites (Beauvais Lake Provincial Park and Kinbrook Island Provincial Park) by detecting young-of-the-year, suggesting that these sites have been successful in completing one full generation of frogs from egg to adult and back to egg and new recruits. We also detected successful over-wintering of leopard frogs again at the Wyndham-Carseland site, and for the first time at the Grainger reintroduction site.

Upon evaluation of the Jenner Springs stewardship site, we determined that Canada thistle (*Cirsium arvense*) had colonized a discontinuous area of approximately 7,000 m². We discussed control and eradication strategies with the landholder for implementation in summer 2012.

Conclusions

Alberta Conservation Association is working co-operatively with a number of partners and stakeholders to ensure that the northern leopard frog remains a part of Alberta's natural heritage. This work includes population and habitat monitoring, co-ordinating reintroductions and implementing stewardship activities. This combination of activities will help to alleviate concerns associated with current populations, such as vulnerability to disease, human disturbance and threats to habitat. ACA continues to provide advice and information to help facilitate a variety of northern leopard frog conservation initiatives in the province.

Communications

- Prescott, D.R.C., K. Kendell, and S.D. Stevens. 2011. Unpublished draft of the Alberta northern leopard frog recovery plan, 2010 – 2015. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Recovery Plan No. 20. Edmonton, Alberta. 33 pp.

- Conference poster presentation at the Society for Northwestern Vertebrate Biology conference, Hood River, Oregon, March 19 – 23, 2012.
- Presentation at Wetlands, Trees, and Forests Environmental Event, Viking Community Centre, Viking, Alberta, September 27, 2011.
- Hosted a volunteer northern leopard frog monitoring workshop at Beauvais Lake Provincial Park, Alberta, September 20, 2011.
- Article in *Outdoor Life*: “Reintroducing the northern leopard frog”. September 6, 2011. Page D1.
- Article in *Explore: Alberta Parks 2011 Guide*: “Connecting to Nature via Frogs (Beauvais Lake Provincial Park – the Montane)”. Pages 52 – 53.
- Presentation for ACA Speakers Series at Writing-On-Stone Provincial Park, Alberta, August 5, 2011.
- Presentation to performing arts summer camp, The Karaoke Croak (Musical Theater), Sherwood Park, Alberta, July 12, 2011.
- Presentation at Miquelon Lake Provincial Park, Alberta, July 2, 2011.
- Presentation to Leo Nickerson Elementary School, St. Albert, Alberta, June 2, 2011.
- Presentation to Lundbreck School, Lundbreck, Alberta, April 14, 2011.
- Distributed northern leopard frog *Wanted* poster.

Literature Cited

Prescott, D.R.C., K. Kendell, and S.D. Stevens. 2011. Unpublished draft, Alberta northern leopard frog recovery plan, 2010 – 2015. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Recovery Plan No. 20. Edmonton, AB. 33 pp.

Kendell, K. 2002. Survey protocol for the northern leopard frog. Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Species at Risk Report No. 43, Edmonton, AB. 30 pp.

Photos:



Northern leopard frog. (Photo: Kris Kendell)

