

Perch River and Point Peninsula Wildlife Management Areas Pale Swallow-wort Control
2014 Field Activities
SLELO – PRISM
August- November 2014



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Introduction and Background:

Ducks Unlimited, Inc. (DU) received funding from the St. Lawrence – Eastern Lake Ontario Partnership for Regional Invasive Species Management (SLELO PRISM) in August 2014 (contract number C009075) to support grassland enhancement efforts in the St. Lawrence Valley (SLV). DU partnered with NY State Department of Environmental Conservation (NYSDEC) to advance enhancement of three acres of grassland through invasive species control of Pale swallow-wort (*Cynanchum rossicum*).

The project goal was to eradicate pale swallow-wort at Perch River and Point Peninsula Wildlife Management Areas (WMA). Perch River WMA is considered a priority site for invasive species eradication due to its high diversity of plants and animals including threatened and endangered species, such as Bald Eagle (*Haliaeetus leucocephalus*), Black Tern (*Chlidonias niger*), Least Bittern (*Ixobrychus exilis*), Pied-billed Grebe (*Podilymbus podiceps*), Northern Harrier (*Circus cyaneus*), Upland Sandpiper (*Bartramia longicauda*), Sedge Wren (*Cistothorus platensis*) and Henslow's Sparrow (*Ammodramus henslowii*). Grassland fields at Perch River are known to support nesting Henslow's Sparrows in 2013. Point Peninsula WMA provides important grassland bird habitat and is also home to threatened and endangered species, such as the Short-Eared Owl (*Asio flammeus*) and Northern Harrier.

Two sites were identified for treatment at Perch River WMA, located along Cooke Road and Dog Hill Road. Both locations had approximately 1-acre to be treated. The Point Peninsula WMA infestation was along Pine Woods Road and the infested area was approximately 1-acre. The total treatment area for the three locations was 3-acres. Cooke Road was treated by SLELO in 2012, and the Pine Wood Road location was treated in 2013 by DU through a Great Lakes Restoration Initiative Grant, administered through Atlantic Coast Joint Venture. The Dog Hill site was a first time treatment.

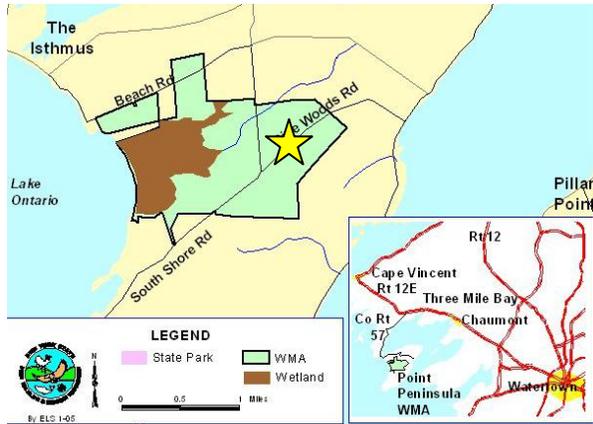


Figure 1 – Point Peninsula – Pine Woods Rd

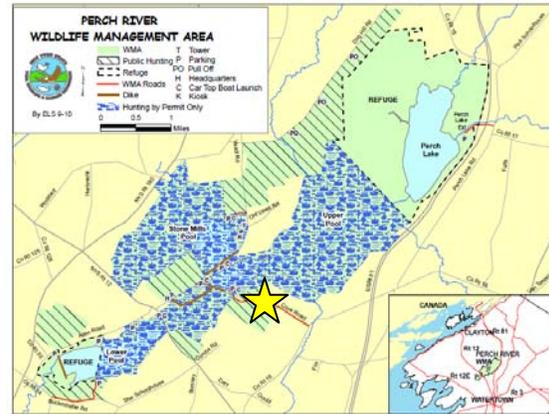


Figure 2 - Perch River – Cook Rd

★ Location of infestation
(1 acres)



Figure 3- Perch River –Dog Hill Rd.

Biology of Swallow-wort (*Cynanchum rossicum*):

Swallow-wort is a highly aggressive invasive species that can form extensive monotypic stands, out-compete native plant species, and significantly decrease biodiversity. Reduced plant diversity, lack of food, and lack of cover from invasion by swallow-wort reduces habitat quality for wildlife, including grassland birds. Preliminary studies have indicated a negative relationship with increased swallow-wort density and nesting grassland birds. In 2013 the SLELO PRISM identified approximately 2-acres at Perch River and 1-acre at Point Peninsula dominated by swallow-wort.

Mechanical control and eradication of pale swallow-wort can be difficult once the plant is established because it forms a substantial biomass of perennial roots. Therefore, herbicide treatment is proposed as the best option to help reduce the spread of pale swallow-wort.

The swallow-wort plant usually emerges in the spring and flowers from June to July, followed by the production of seed pods. Herbicide should be applied when the plants are actively growing, and before seed pods are produced. Only when the plant flowers will it be large enough to receive enough chemical on the exposed leaf surface to deliver a killing dose to the roots. To maximize the treatment effects, retreatment herbicide spraying is often required for a couple of years following the initial control.

2014 Field Activities Delivered:

The sites at Perch River WMA were along Cooke Road (18N 423664.22E; 48 82045.65N) and at the edge of a field off of Dog Hill Road (18N 424821.43E 4885519.18N). The Point Peninsula WMA infestation is along the side of Pine Woods Road (18N 400718.29E 4872870.37N).

DU completed all proposed tasks on time. DU cooperated with NYSDEC to complete project layout by marking, with flags, the actual swallow-wort plant and the proposed locations for spraying. DU prepared bids packages and solicited three bids for the herbicide treatment. The lowest bid contractor was awarded the job and the contracting agreement between DU and the selected contractor was secured on August 8, 2014. All permits were received by August 2014. DU provided maps and GPS locations to the contractor detailing the project locations, and a site visit was completed to review the treatment areas on August 12, 2014. The applicator treated all live swallow-wort plants with Garlon 4 Ultra (active ingredient triclopyr) in and along the pre-identified location at Cooke Road and Dog Hill Road, Perch River WMA, and Pine Woods Road, Point Peninsula WMA. The total area treated was approximately 3-acres.

The Garlon 4 herbicide was applied to the foliage of the swallow-wort plants either by spraying or wicking on August 19, 2014. The herbicide was not applied over standing water. It was the responsibility of the contractor to ensure all chemical control methods and regulatory guidelines were adhered to, thus ensuring no hazardous effect to local vegetation or crops. There was no damage resulting from the chemical herbicide application.

The herbicide treatment was completed in accordance with label specifications and applied by a certified commercial pesticide applicator. The contractor followed NYSDEC permit guidelines. DU oversaw the project delivery and ensured the herbicide activities were completed in accordance to permit specifications and regulations. The final site inspection was completed by DU on August 20, 2014 with a follow up mid-September. Observations indicate the herbicide application was delivered according to contractual requirements.

Monitoring

In the future the NYSDEC will continue to identify and conduct yearly site visits of the treated areas and newly identified location, in order to ensure swallow-wort is controlled.

Problems experienced

No problems were experienced during the project delivery. All tasks were delivered on time and under budget. However, when the contractor was treating the Point Peninsula fields, they discovered additional 6-acres of swallow-wort invasion not previously identified. Due to seasonal timing, and budget limitation, DU was unable to advance treatment of the additional 6-acres this year. DU notified SLELO and NYSDEC of the addition infestation and the location has been identified for future treatment.

Summary

The Dog Hill site was treated for the first time in 2014, and it is likely that a repeat spraying will be required in 2015.

The successful completion of this project has further demonstrated both the need for conservation of critical habitats and the ability to build partnerships to execute the conservation process. DU promoted the SLELO partnership at several presentations, and the project will be promoted in the 2014 DU annual conservation reports (final report will be available in March 2015). Similarly, through NYSDEC outreach programs and SLELO communications the project details will be available for public review. Therefore, the community will gain an understanding and appreciation for the role that federal and local partnerships can play in resource restoration.

This project provides continued momentum towards meeting biologically sound conservation goals for the St. Lawrence Valley and builds upon the landscape scale conservation activities currently underway in the region. For example, enhancement of the grassland habitat, through herbicide spraying is consistent with basin wide goals described in the Atlantic Coast Joint Venture, Bird Conservation Region 13, New York State Wildlife Action Plan, and USFWS Strategic Habitat Conservation Plan. The herbicide treatment of pale swallow-wort improved the value of the grassland habitats for fish and wildlife. Similarly, the partnership continued management and restoration efforts between DU and NYSDEC to improve quantity and quality of habitat for migratory birds.

Photos collected by Ducks Unlimited, Inc.



Location of 6-acre of newly identified swallow-wort at Point Peninsula.



Flagged Tree line at Doghill Road, Perch River



Treated Swallow-wort at Cooke Road, Perch River



Shrub area treated at Doghill road, Perch River

