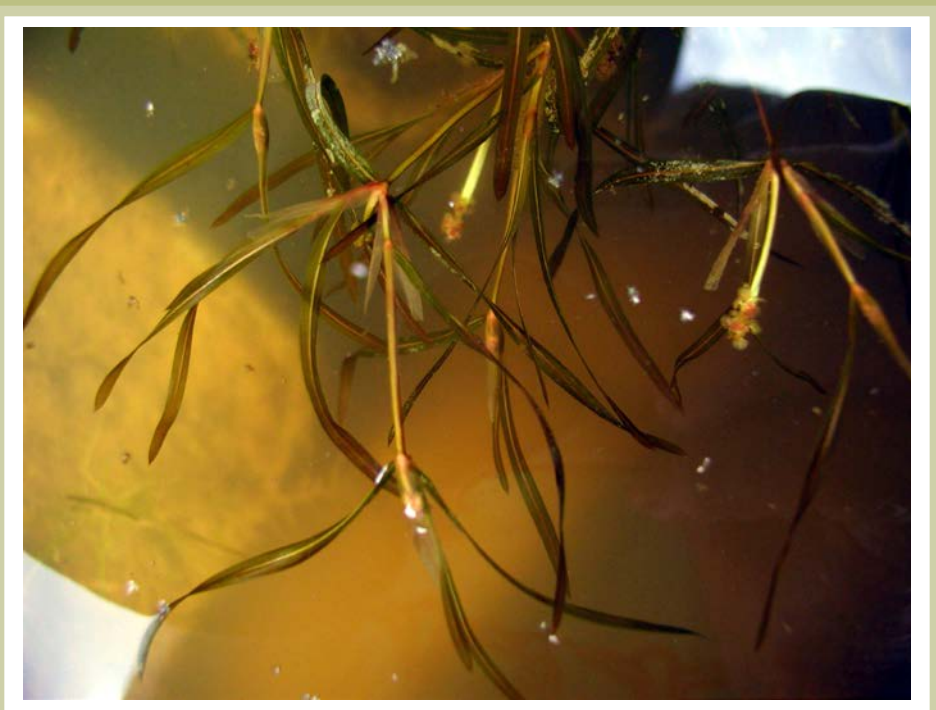
Species at Risk Act
Recovery Strategy Series
Adopted under Section 44 of SARA

Recovery Strategy for Ogden's Pondweed (*Potamogeton ogdenii*) in Canada

Ogden's Pondweed



2016

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For copies of the recovery strategy, or for additional information on species at risk, including the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) Status Reports, residence descriptions, action plans, and other related recovery documents, please visit the Species at Risk (SAR) Public Registry[1].

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[1] http://www.registrelep-sararegistry.gc.ca

RECOVERY STRATEGY FOR OGDEN'S PONDWEED (*Potamogeton ogdenii*) IN CANADA

2016

Under the Accord for the Protection of Species at Risk (1996), the federal, provincial, and territorial governments agreed to work together on legislation, programs, and policies to protect wildlife species at risk throughout Canada.

In the spirit of cooperation of the Accord, the Government of Ontario has given permission to the Government of Canada to adopt the *Recovery Strategy for Ogden's Pondweed (*Potamogeton ogdenii*) in Ontario* (Part 2) under Section 44 of the *Species at Risk Act* (SARA)*.* Environment Canada has included an addition (Part 1) which completes the SARA requirements for this recovery strategy.

Environment Canada is adopting the provincial recovery strategy with the exception of section 2, Recovery. In place of section 2, Environment Canada is adopting the Government of Ontario's goal and the government-led and government-supported actions of the *Ogden's Pondweed - Ontario Government Response Statement*[2] (Part 3) as the population and distribution objective and the broad strategies and general approaches to meet the population and distribution objective, and is partially adopting the habitat regulated under Ontario's *Endangered Species Act, 2007* as critical habitat for the Ogden's Pondweed*.*

The federal Recovery Strategy for Ogden's Pondweed (*Potamogeton ogdenii*) in Canada consists of three parts:

Part 1 - Federal Addition to the *Recovery Strategy for Ogden's Pondweed (*Potamogeton ogdenii*) in Ontario*, prepared by Environment Canada.

Part 2 - *Recovery Strategy for Ogden's Pondweed (*Potamogeton ogdenii*) in Ontario*, prepared by D.J. White for the Ontario Ministry of Natural Resources[3].

Part 3 - *Ogden's Pondweed - Ontario Government Response Statement*, prepared by the Ontario Ministry of Natural Resources.

[2] The Government Response Statement is the Ontario Government's policy response to the recovery strategy and summarizes the prioritized actions that the Ontario Government intends to take and support.

[3] On June 26, 2014, the Ontario Ministry of Natural Resources became the Ontario Ministry of Natural Resources and Forestry.

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PART 3 - *Ogden's Pondweed - Ontario Government Response Statement*, prepared by the Ontario Ministry of Natural Resources.

PART 1 - Federal Addition to the *Recovery Strategy for Ogden's Pondweed (*Potamogeton ogdenii*) in Ontario*, prepared by Environment Canada

PREFACE

The federal, provincial, and territorial government signatories under the Accord for the Protection of Species at Risk (1996)[4] agreed to establish complementary legislation and programs that provide for effective protection of species at risk throughout Canada. Under the *Species at Risk Act* (S.C. 2002, c.29) (SARA), the federal competent ministers are responsible for the preparation of recovery strategies for listed Extirpated, Endangered, and Threatened species and are required to report on progress five years after the publication of the final document on the SAR Public Registry.

The Minister of the Environment and Minister responsible for Parks Canada Agency is the competent minister under SARA for the Ogden's Pondweed and has prepared the federal component of this recovery strategy (Part 1), as per section 37 of SARA. SARA section 44 allows the Minister to adopt all or part of an existing plan for the species if it meets the requirements under SARA for content (sub-sections 41(1) or (2)). The Ontario Ministry of Natural Resources (now the Ontario Ministry of Natural Resources and Forestry) led the development of the attached recovery strategy for Ogden's Pondweed (Part 2) in cooperation with Environment Canada and the Parks Canada Agency. The Province of Ontario also led the development of the attached Government response (Part 3), which is the Ontario Government's policy response to its provincial recovery strategy and summarizes the prioritized actions that the Ontario Government intends to take and support.

Success in the recovery of this species depends on the commitment and cooperation of many different constituencies that will be involved in implementing the directions set out in this strategy and will not be achieved by Environment Canada, the Parks Canada Agency or any other jurisdiction alone. All Canadians are invited to join in supporting and implementing this strategy for the benefit of Ogden's Pondweed and Canadian society as a whole.

This recovery strategy will be followed by one or more action plans that will provide information on recovery measures to be taken by Environment Canada, the Parks Canada Agency and other jurisdictions and/or organizations involved in the conservation of the species. Implementation of this strategy is subject to appropriations, priorities, and budgetary constraints of the participating jurisdictions and organizations.

The recovery strategy sets the strategic direction to arrest or reverse the decline of the species, including identification of critical habitat to the extent possible. It provides all Canadians with information to help take action on species conservation. When the recovery strategy identifies critical habitat, there may be future regulatory implications, depending on where the critical habitat is identified. SARA requires that critical habitat identified within federal protected areas be described in the *Canada Gazette*, after which prohibitions against its destruction will apply. For critical habitat located on federal lands outside of federal protected areas, the Minister of the Environment must either make a statement on existing legal protection or make an order so that the prohibition against destruction of critical habitat applies. For critical habitat located on non-federal

[4] http://registrelep-sararegistry.gc.ca/default.asp?lang=en&n=6B319869-1#2

lands, if the Minister of the Environment forms the opinion that any portion of critical habitat is not protected by provisions in or measures under SARA or other Acts of Parliament, and not effectively protected by the laws of the province or territory, SARA requires that the Minister recommend that the Governor in Council make an order to extend the prohibition against destruction of critical habitat to that portion. The discretion to protect critical habitat on non-federal lands that is not otherwise protected rests with the Governor in Council.

ACKNOWLEDGEMENTS

The federal addition was prepared by Karolyne Pickett (Environment Canada, Canadian Wildlife Service – Ontario). Additional preparation and review of the document was completed by Tianna Burke (formerly of Environment Canada, Canadian Wildlife Service - Ontario), Rachel deCatanzaro, and Lee Voisin (Environment Canada, Canadian Wildlife Service – Ontario). This federal addition benefited from input, review, and/or suggestions from the following individuals and organizations: Krista Holmes, Madeline Austen, Lesley Dunn, and Elizabeth Rezek (Environment Canada, Canadian Wildlife Service – Ontario); Wendy Dunford (Environment Canada, Canadian Wildlife Service – National Capital Region); Hary Szeto, Hillary Knack, Sheldon Lambert, Joanne Tuckwell, and Gary Allen (Parks Canada Agency); Vivian Brownell, Aileen Wheeldon, Amanda Fracz, Amelia Argue, Jay Fitzsimmons, Eric Snyder, Michael J. McMurty, Michael J. Oldham, and Tobi Kiesewalter (Ontario Ministry of Natural Resources and Forestry), and C. Barre Hellquist (Massachusetts College of Liberal Arts).

Acknowledgement and thanks is given to all other parties that provided advice and input used to help inform the development of this recovery strategy including various Aboriginal organizations and individuals, individual citizens, and stakeholders who provided input and/or participated in consultation meetings.

ADDITIONS AND MODIFICATIONS TO THE ADOPTED DOCUMENT

The following sections have been included to address specific requirements of the federal *Species at Risk Act* (SARA) that are not addressed in the Province of Ontario's *Recovery Strategy for Ogden's Pondweed (*Potamogeton ogdenii*) in Ontario* (Part 2) and to provide updated or additional information.

Under SARA, there are specific requirements and processes set out regarding the protection of critical habitat. Therefore, statements in the provincial recovery strategy referring to protection of survival/recovery habitat may not directly correspond to federal requirements. Recovery measures dealing with the protection of habitat are adopted; however, whether these measures will result in protection of critical habitat under SARA will be assessed following publication of the federal recovery strategy.

1. Species Status Information

At the global scale, Ogden's Pondweed has been assigned a range rank of G1G2, to indicate the range of uncertainty about the exact status of the species between Critically Imperiled[5] and Imperiled[6] (NatureServe 2012). The national rank in Canada was changed from Critically Imperiled (N1) to Possibly Extirpated[7] (NH) in August 2012 (NatureServe 2012). The species has not been observed in over 20 years at any of the three locations from which specimens were previously collected in Ontario. Table 1 lists the NatureServe (2012) national and sub-national ranks (N-ranks and S-ranks, respectively) in North America for Ogden's Pondweed.

Table 1. Sub-national ranks for Ogden's Pondweed in North America (NatureServe 2012)

S-rank	State/Province
SH (Possibly Extirpated [Historical])	Ontario
S1 (Critically Imperiled)	Connecticut, Massachusetts, New York, Vermont

The species is listed as Endangered[8] under the Ontario *Endangered Species Act*, *2007* (ESA), and as Endangered on Schedule 1 of the federal SARA.

Ogden's Pondweed is only found in north-eastern North America. In Canada, it has been documented to occur at only three locations in south-eastern Ontario

[5] Critically Imperiled (G1/N1/S1): At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.

[6] Imperiled (G2/N2/S2): At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.

[7] Possibly Extirpated (NH/SH): Known from only historical records but still some hope of rediscovery. There is evidence that the species or ecosystem may no longer be present in the jurisdiction, but not enough to state this with certainty.

[8] A species that lives in the wild in Ontario but is facing imminent extinction or extirpation.

(COSEWIC 2007). The presence of the species in Ontario is known from three collected specimens: one collected in Hastings County in 1873, a second specimen collected in 1974 at Murphys Point Provincial Park, and a third specimen collected in 1987 near Davis Lock in the Rideau Canal; in all cases, specimens were only identified as Ogden's Pondweed many years after the field collections were made (White 2010). Individuals of the species have not been found at any of these three locations subsequent to the original collection of specimens (see White 2010). Due to its similarity to other pondweeds, identification of Ogden's Pondweed is very difficult in the field, making detection a challenge.

The distribution of Ogden's Pondweed in Canada, based on historic records, probably constitutes less than ten percent of the species' global distribution.

2. Species Information

The taxonomy of the pondweed family (*Potamogetonaceae*) is highly complex, and there has been a considerable amount of uncertainty surrounding the taxonomy of Ogden's Pondweed. Ogden's Pondweed was first described as a distinct species in 1983, and was believed to have originated as a hybrid between *Potamogeton hillii* and *Potamogeton zosteriformis* (Hellquist and Hilton 1983); the species was described based on specimens collected in 1970 in the United States that had been previously considered hybrids of other pondweed species (see COSEWIC 2007). Since the last COSEWIC assessment and the publication of the *Recovery Strategy for Ogden's Pondweed (*Potamogeton ogdenii*) in Ontario*, Kaplan et al. (2013) have suggested, based on unpublished genetic data from specimens in the United States, that Ogden's Pondweed arose as a hybrid involving *P. hillii* and *P. zosteriformis* but that it does not yet appear to have evolved to the extent that it should be considered a distinct species.

Recent discoveries of *P. hillii* on the Canadian Shield suggests that there is a potential for overlap in the ranges of *P. hillii* and the more common *P. zosteriformis* in proximity to the two more recent historical locations of Ogden's Pondweed in Ontario (Parks Canada Agency pers. comm. 2014). However, whether this finding holds significance to the occurrence of Ogden's Pondweed in Ontario is currently not known, and there remain many uncertainties surrounding the origin of the Ogden's Pondweed taxon.

Further research is warranted, including an examination of Ontario specimens, to better understand the taxonomy of Ogden's Pondweed, its relationship to parental species, and the potential implications for recovery in Canada (see section 5).

3. Recovery Feasibility

Based on the following four criteria outlined in the draft SARA Policies (Government of Canada 2009), there are unknowns regarding the feasibility of recovery of Ogden's Pondweed. In keeping with the precautionary principle, a full recovery strategy has been prepared as would be done when recovery is determined to be feasible.

1. Individuals of the wildlife species that are capable of reproduction are available now or in the foreseeable future to sustain the population or improve its abundance.

   Unknown. Despite searches by the author of the COSEWIC status report in and around the historical locations in 2005 and 2006 (COSEWIC 2007), as well as a two-day search for Ogden's Pondweed at Murphys Point Provincial Park in 2009 (McIntosh pers. comm. 2010 *in* White 2010), the species has not been re-confirmed at any of the three locations from which it has been previously collected in Ontario. The species' presence is difficult to confirm given the challenge of identifying the species in the field (it resembles other pondweed species and very few individuals possess the expertise to identify it); additionally, if it occurs, it is likely in low abundance and, based on observations in the U.S. (Hellquist and Mertinooke-Jongkind 2003), may exhibit significant yearly population fluctuations. For these reasons, individuals of the species capable of reproduction could be present in or nearby one or more of the historical locations, and/ or in undiscovered locations with suitable habitat.

2. Sufficient suitable habitat is available to support the species or could be made available through habitat management or restoration.

   Yes. Based on observations in the U.S., and what is known of the locations where Ogden's Pondweed has occurred historically in Ontario, the species occupies a habitat type that is not rare (shallow, alkaline waters of clear, slow-moving streams, beaver ponds and lakes). Based on searches undertaken by the author of the COSEWIC report, although suitable habitat likely no longer occurs at one of the three historical locations (Black Creek in Murphys Point Provincial Park), suitable habitat appears to be present in nearby bays within and adjacent to the park (COSEWIC 2007). Suitable habitat for Ogden's Pondweed also appears to be available in Hastings County and at the Davis Lock location (COSEWIC 2007). It should be noted, however, that detailed habitat needs for this species in Ontario have not been verified, due to a lack of field observations.

3. The primary threats to the species or its habitat (including threats outside Canada) can be avoided or mitigated.

   Unknown. Primary threats to the species are not well-understood. The most likely threat to the species is the loss of habitat, which has occurred at the Murphys Point Provincial Park location due to the disappearance of beaver ponds within Black Creek (White 2010). The natural loss of beaver ponds cannot be avoided or mitigated as beaver ponds are ephemeral in nature. However habitat loss as a result of human activities such as shoreline development can be avoided or mitigated through the appropriate review, planning and implementation of development proposals that may result in shoreline alterations. Secondly, it is speculated that invasive non-native aquatic plants such as Eurasian Water-milfoil (*Myriophyllum spicatum*) could render habitat unsuitable to the species. At the Davis Lock location, Eurasian Water Milfoil is one of the

dominant species present in the main navigation channel area (Parks Canada Agency pers. comm. 2014). Research would be required to better understand the level of impact posed by each potential threat to the species and the extent of mitigation that can be performed.

4. Recovery techniques exist to achieve the population and distribution objectives or can be expected to be developed within a reasonable timeframe.

   Unknown. The population and distribution objective consists of maintaining populations where they exist in Ontario. The primary recovery techniques available to achieve the objective consist of conserving habitat at locations where the species is found to exist by avoiding or mitigating threats to the habitat. The feasibility of avoiding all threats to the species and its habitat is unknown (see question 3 above), and without knowledge of the distribution and extent of the species in Ontario, the potential for recovery techniques to be effective is difficult to determine.

Because the presence of Ogden's Pondweed has been documented in only three locations in south-eastern Ontario, it may have always been rare in the province. Due to the Ogden's Pondweed naturally limited distribution in Canada, it will likely always be vulnerable to anthropogenic and natural stressors.

4. Population and Distribution Objectives

The provincial recovery strategy contains the following recovery goal for the recovery of Ogden's Pondweed in Ontario:

- The long-term recovery goal for Ogden's Pondweed is to ensure the persistence of the species in Ontario. Since Ogden's Pondweed has not been recorded in Ontario since 1987 (at Davis Lock), the short-term recovery goal must be to determine if and where the species still occurs in the province.

The *Government Response Statement* for the province of Ontario lists the following goal for the recovery of Ogden's Pondweed in Ontario:

- The government's goal for the recovery of Ogden's Pondweed is to ensure the persistence of populations where they exist in Ontario.

Under SARA, a population and distribution objective for the species must be established. Environment Canada is adopting the recovery goal in the *Ogden's Pondweed - Ontario Government Response Statement* (Part 3) as the population and distribution objective for Ogden's Pondweed under SARA.

Given that Ogden's Pondweed has not been observed in Ontario in over 20 years, and all documented populations are considered historical, surveys focused at and in proximity to the most recently known locations (Murphys Point Provincial Park and

Davis Lock) are needed to confirm the existence of the species in Ontario (See Part 3 - *Ogden's Pondweed - Ontario Government Response Statement*). If the species is found to exist at historical or new locations, recovery efforts will aim to ensure persistence of the population(s).

5. Broad Strategies and General Approaches to Meet Objectives

The government-led and government-supported actions tables included in the *Ogden's Pondweed - Ontario Government Response Statement* (Part 3) are adopted as the broad strategies and general approaches to meet the population and distribution objective. Environment Canada is not adopting the approaches identified in section 2 of the *Recovery Strategy for Ogden's Pondweed (*Potamogeton ogdenii*) in Ontario* (Part 2).

In addition, in light of recent research that questions the taxonomy of Ogden's Pondweed (see Section 2), the following Broad Strategy and General Approach is added to assist with meeting the population and distribution objective:

Table 2. Additional Broad Strategy and General Approach to recovery for the Ogden's Pondweed.

Threat or Limitation	Priority	Broad Strategy for Recovery	General Description of Research and Management Approaches
Knowledge Gap	High	Research	• Encourage and/or conduct genetic research to verify the taxonomic classification of Ontario specimens of Ogden's Pondweed, their relationship to the parental species, and potential implications for recovery.

6. Critical Habitat

6.1 Identification of the Species' Critical Habitat

Section 41 (1)(c) of SARA requires that recovery strategies include an identification of the species' critical habitat, to the extent possible, as well as examples of activities that are likely to result in its destruction. Under SARA, critical habitat is "the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species".

Identification of critical habitat is not a component of provincial recovery strategies under the Province of Ontario's ESA. However, following the completion of the provincial recovery strategy for this species, a provincial habitat regulation was developed for Ogden's Pondweed, and came into force July 1, 2011. A habitat

regulation is a legal instrument that prescribes an area that will be protected[9] as the habitat of this species by the Province of Ontario. The habitat regulation identifies the geographic area within which the habitat for the species is prescribed and the regulation may apply, explains how the boundaries of regulated habitat are determined (based on biophysical and other attributes) and identifies the types of habitat where Ogden's Pondweed occurs. The regulation is dynamic and automatically in effect whenever the conditions described in the regulation are met within the specified geographic area.

Environment Canada is partially adopting the description of the Ogden's Pondweed habitat under section 28.1 of Ontario Regulation 242/08[10] made under the provincial ESA, with the exception of subsection 2.1, as the critical habitat in this federal recovery strategy. Additional criteria and details are provided in this section. Should Ogden's Pondweed persist, the area defined under Ontario's habitat regulation would contain the biophysical attributes required by Ogden's Pondweed to carry out its life process. To meet specific requirements of SARA, the biophysical attributes of critical habitat are further detailed below.

The areas prescribed under **Ontario Regulation 242/08 – Ogden's Pondweed habitat** are described as follows:

> *28.1 (1) For the purpose of clause (a) of the definition of "habitat" in subsection 2 (1) of the Act [ESA], the areas described in subsection (2) that are located in the following geographic townships are prescribed as the habitat of Ogden's Pondweed:*
>
> *1. The geographic Township of South Crosby, located in the Municipality of Rideau Lakes in the United Counties of Leeds and Grenville.*
>
> *2. The geographic Township of Burgess, located in the Municipality of Tay Valley in the County of Lanark. O. Reg. 293/11, s. 5.*
>
> *(2) Subsection (1) applies to the following areas:*
>
> *1. An aquatic vegetation community where Ogden's Pondweed exists or has existed at any time in the past that is in an area of a stream, river or other body of water that is less than five metres deep.*
>
> *2. Any part of a river, stream or other body of water within an area described in paragraph 1, up to the high water mark.*
>
> *3. The area above the high water mark that is within five metres of an area described in paragraph 2. O. Reg. 293/11, s. 5.*

In order to support the population and distribution objective established in this recovery strategy of ensuring persistence of existing populations, confirmation of the continued

[9] Under the federal SARA, there are specific requirements and processes set out regarding the protection of critical habitat. Protection of critical habitat under SARA will be assessed following publication of the final federal recovery strategy.

[10] http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm#s28p1s1

presence of Ogden's Pondweed is required. Therefore, Environment Canada replaces the description provided in subsection 28.1(2)1 (but not 28.1(2)2 and 3) of the Ontario Regulation 242/08 with:

1. *An aquatic vegetation community where Ogden's Pondweed **exists or has existed at any time in the past 20 years** that is in an area of a stream, river or other body of water that is less than five metres deep.*

The biophysical attributes of critical habitat include the characteristics described below.

Ogden's Pondweed is found in clear, slow-moving streams, ponds and lakes with waters that are typically neutral to alkaline. In Canada, the species has been found in shallow pools along creek beds and quiet, shallow bays within ponds or lakes with marble bedrock. Although difficult to verify given the lack of field observations of this species in Canada, it is expected that suitable habitat for Ogden's Pondweed would predominantly fall within the aquatic vegetation communities belonging to the Shallow Water Community Class defined using the Ecological Land Classification for Southern Ontario (Lee et al. 1998), characterized by shallow, permanent water of lakes, ponds, or rivers where macrophyte[11] vegetation is present. While these habitats tend to occur at water depths of less than 2 m, submerged vegetation communities, including Ogden's Pondweed, may extend to greater water depths (e.g., where water clarity enables deeper light penetration).

In applying the critical habitat identification above to the best available data (as of April 2014), no critical habitat is identified for the species due to the need to confirm habitat occupancy at historic locations (Murphys Point Provincial Park and Davis Lock (Rideau Canal)). A schedule of studies (section 6.2) has been developed to provide the information necessary to identify the critical habitat that will be sufficient to meet the population and distribution objective for Ogden's Pondweed. Should Ogden's Pondweed be confirmed at historic locations or should new occurrences of the species be identified that meet the critical habitat criteria above, critical habitat will be identified in an updated federal recovery strategy or a subsequent action plan.

More detailed information on regulated habitat for Ogden's Pondweed may be requested on a need-to-know basis from the Ontario Ministry of Natural Resources and Forestry. More detailed information on critical habitat may be requested on a need-to-know basis by contacting Environment Canada – Canadian Wildlife Service at ec.planificationduretablissement-recoveryplanning.ec@canada.ca.

[11] Aquatic plants large enough to be seen by the naked eye, including emergent, submerged, and floating species.

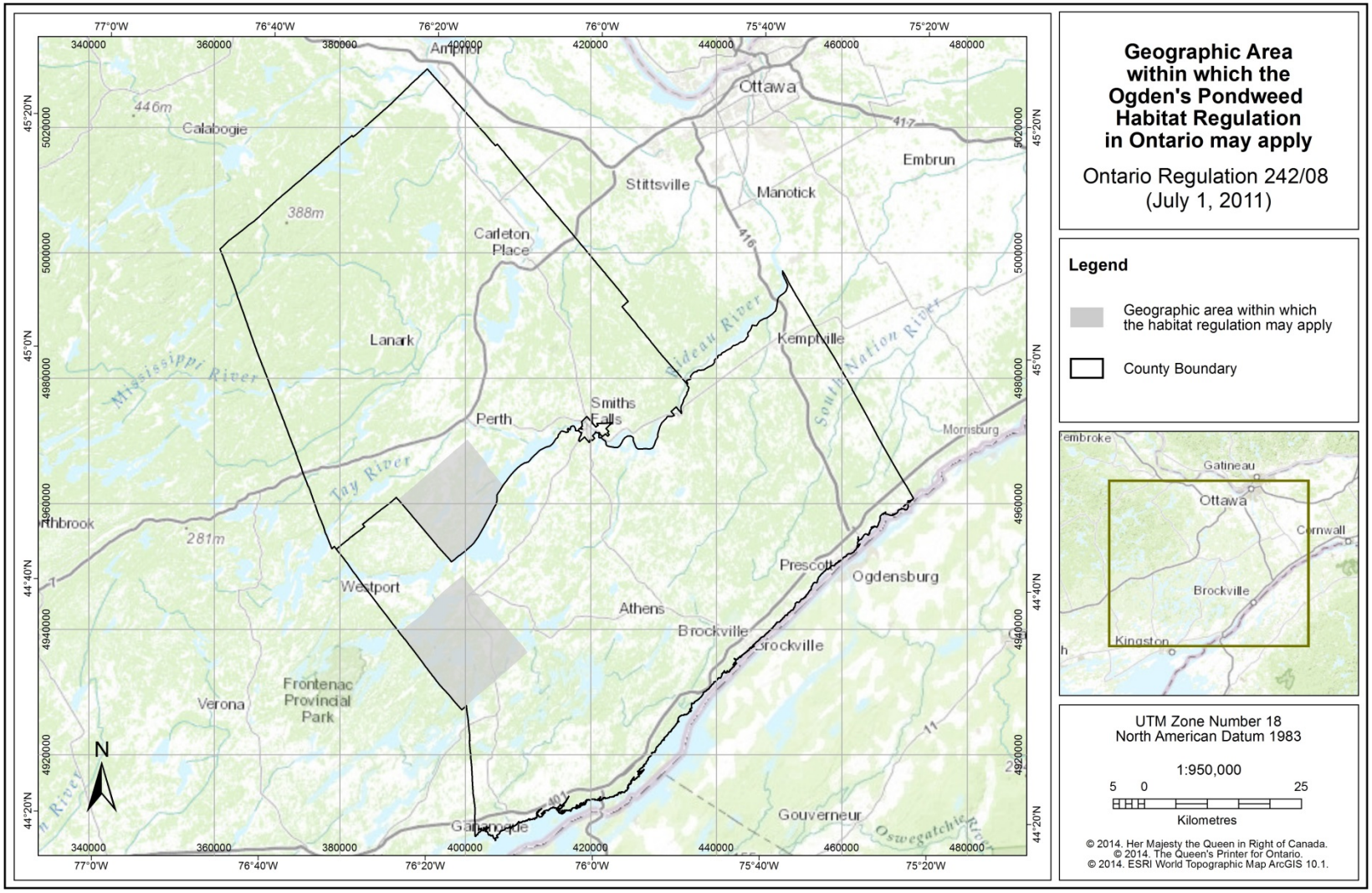

Figure 1. The geographic area within which the habitat regulation for the Ogden's Pondweed may apply if the habitat meets the conditions described in section 28.1 of Ontario Regulation 242/08 under the provincial ESA.

6.2 Schedule of Studies to Identify Critical Habitat

Table 3. Schedule of Studies

Description of Activity	Rationale	Timeline
Conduct targeted surveys for Ogden's Pondweed at Murphys Point Provincial Park and Davis Lock (Rideau Canal) locations and document habitat use if and where it occurs.	Inadequate information exists for Ogden's Pondweed at these locations and is required to fully describe critical habitat.	2016-2020

7. Measuring Progress

The performance indicators presented below provide a way to define and measure progress toward achieving the population and distribution objective.

Every five years, success of recovery strategy implementation will be measured against the following performance indicator:

- Populations persist if they are once again confirmed to exist in Ontario.

8. Statement on Action Plans

One or more action plans will be completed and posted on the Species at Risk Public Registry for Ogden's Pondweed by December 31, 2023.

9. Effects on the Environment and Other Species

A strategic environmental assessment (SEA) is conducted on all SARA recovery planning documents, in accordance with the *Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals*[12]. The purpose of a SEA is to incorporate environmental considerations into the development of public policies, plans, and program proposals to support environmentally sound decision-making.

Recovery planning is intended to benefit species at risk and biodiversity in general. However, it is recognized that strategies may also inadvertently lead to environmental effects beyond the intended benefits. The planning process based on national guidelines directly incorporates consideration of all environmental effects, with a particular focus on possible impacts on non-target species or habitats. The results of the SEA are incorporated directly into the strategy itself, but are also summarized below.

This federal recovery strategy will clearly benefit the environment by promoting the recovery of Ogden's Pondweed. In addition to stakeholder and public awareness initiatives, the broad strategies and general approach to meeting population and distribution objective for the species are limited to conducting surveys in suitable habitat

[12] http://www.ceaa.gc.ca/default.asp?lang=En&n=B3186435-1

and, where found, protecting these habitats from anthropogenic disturbance as well as documenting population size, habitat parameters and threats at each location. These broad strategies will not result in any significant adverse effects to the environment. The potential for the strategy to inadvertently lead to adverse effects on other species was considered. Furthermore, any increase in Ogden's Pondweed abundance is unlikely to impact other pondweed species because of this species' extreme rarity. The SEA concluded that this strategy will clearly benefit the environment and will not entail any significant adverse effects. The reader should refer to the following sections of the document in particular: habitat needs (Part 2, section 1.4); threats to survival and recovery (Part 2, section 1.5); and the government-led and government-supported actions tables from the *Ogden's Pondweed - Ontario Government Response Statement* (Part 3).

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PART 2 - *Recovery Strategy for Ogden's Pondweed (*Potamogeton ogdenii*) in Ontario*, prepared by D.J. White for the Ontario Ministry of Natural Resources

About the Ontario Recovery Strategy Series

This series presents the collection of recovery strategies that are prepared or adopted as advice to the Province of Ontario on the recommended approach to recover species at risk. The Province ensures the preparation of recovery strategies to meet its commitments to recover species at risk under the Endangered Species Act, 2007 (ESA, 2007) and the Accord for the Protection of Species at Risk in Canada.

What is recovery?

Recovery of species at risk is the process by which the decline of an endangered, threatened, or extirpated species is arrested or reversed, and threats are removed or reduced to improve the likelihood of a species' persistence in the wild.

What is a recovery strategy?

Under the ESA, 2007, a recovery strategy provides the best available scientific knowledge onwhat is required to achieve recovery of a species. A recovery strategy outlines the habitat needs and the threats to the survival and recovery of the species. It also makes recommendations on the objectives for protection and recovery, the approaches to achieve those objectives, and the area that should be considered in the development of a habitat regulation. Sections 11 to 15 of the ESA, 2007 outline the required content and timelines for developing recovery strategies published in this series.

Recovery strategies are required to be prepared for endangered and threatened species within one or two years respectively of the species being added to the Species at Risk in Ontario list. There is a transition period of five years (until June 30, 2013) to develop recovery strategies for those species listed as endangered or threatened in the schedules of the ESA, 2007. Recovery strategies are required to be prepared for extirpated species only if reintroduction is considered feasible.

What's next?

Nine months after the completion of a recovery strategy a government response statement will be published which summarizes the actions that the Government of Ontario intends to take in response to the strategy. The implementation of recovery strategies depends on the continued cooperation and actions of government agencies, individuals, communities, land users, and conservationists.

For more information

To learn more about species at risk recovery in Ontario, please visit the Ministry of Natural Resources Species at Risk webpage at: www.ontario.ca/speciesatrisk

RECOMMENDED CITATION

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Cover illustration: Specimen of *Potamogeton ogdenii* from Davis Lock at the herbarium of the Department of Agriculture, Ottawa (DAO)

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DECLARATION

The Ontario Ministry of Natural Resources has led the development of this recovery strategy for Ogden's Pondweed in accordance with the requirements of the *Endangered Species Act,* 2007 (ESA 2007). This recovery strategy has been prepared as advice to the Government of Ontario, other responsible jurisdictions and the many different constituencies that may be involved in recovering the species.

The recovery strategy does not necessarily represent the views of all of the individuals who provided advice or contributed to its preparation, or the official positions of the organizations with which the individuals are associated.

The goals, objectives and recovery approaches identified in the strategy are based on the best available knowledge and are subject to revision as new information becomes available. Implementation of this strategy is subject to appropriations, priorities and budgetary constraints of the participating jurisdictions and organizations.

Success in the recovery of this species depends on the commitment and cooperation of many different constituencies that will be involved in implementing the directions set out in this strategy.

RESPONSIBLE JURISDICTIONS

Ontario Ministry of Natural Resources
Parks Canada Agency
Environment Canada, Canadian Wildlife Service - Ontario

EXECUTIVE SUMMARY

Ogden's Pondweed (*Potamogeton ogdenii*) occurs in eastern Ontario, western Connecticut, eastern and central New York, central Vermont, and western Massachusetts. Ogden's Pondweed is considered critically imperiled globally and is designated as endangered in Massachusetts and New York. It is listed as endangered on the Species at Risk in Ontario (SARO) List under the province's *Endangered Species Act, 2007* and on Schedule 1 of the federal *Species at Risk Act*.

In Ontario, this species is known only from Hastings County (1873), Murphys Point Provincial Park (1974), and Davis Lock on the Rideau Canal (1987). The Hastings County record is not possible to locate because the specimen lacks locality data. Neither the Murphys Point nor the Davis Lock sites were re-confirmed during field work by the author in 2005 or 2006 but suitable habitat exists in the vicinity of both of these sites. The species is likely still present in Ontario.

Ogden's Pondweed is a submerged, annual aquatic plant that reproduces mainly by winter buds or turions. Fruits are also produced. The species grows in clear, shallow water of slow-moving streams, beaver ponds, and lakes. This water is generally highly-alkaline.

Potential threats to Ogden's Pondweed are habitat loss, eutrophication and competition from native and invasive plants. The low number of populations globally may be a limiting factor for the species.

The long-term recovery goal for Ogden's Pondweed is to ensure the persistence of the species in Ontario. Since Ogden's Pondweed has not been recorded in Ontario since 1987 (at Davis Lock), the short-term recovery goal must be to determine if and where the species still occurs in the province.

Recovery objectives are to:

1. Determine if and where Ogden's Pondweed occurs in Ontario.
2. If extant populations can be found, determine the population size, habitat parameters, population dynamics, and specific threats for those occurrences.
3. Ensure the protection of Ogden's Pondweed habitat where the species still occurs.
4. Consider the feasibility and appropriateness of re-introducing the species to suitable or former sites (if no longer extant) if sufficient habitat is present, threats to the species can be mitigated, and proven methods for re-introduction can be found.

In order to meet these objectives, a number of approaches to recovery have been suggested including protecting known populations and associated habitat by developing site-specific management strategies, monitoring extant sites and monitoring the effectiveness of any management actions undertaken.

Searches over several years may be required to confirm the presence or absence of the species at the Davis Lock and Murphy's Point sites. As a precautionary measure, it is recommended that the following areas be prescribed as habitat within a habitat regulation. The portion of Black Creek within Murphys Point Provincial Park, Hoggs Bay and the appropriate habitat within the associated bays and shallow water areas of adjacent Big Rideau Lake within the park. The regulation should also include the aquatic habitat downstream of Davis Lock. The specific boundaries of these areas should be determined on a site-specific level based on further study.

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1.0 BACKGROUND INFORMATION

1.1 Species Assessment and Classification

COMMON NAME: Ogden's Pondweed
SCIENTIFIC NAME: *Potamogeton ogdenii*
SARO List Classification: Endangered
SARO List History: Endangered (2009)
COSEWIC Assessment History: Endangered (2007)
SARA Schedule 1: Endangered (March 18, 2009)
CONSERVATION STATUS RANK: GRANK: G1G2 NRANK: N1 SRANK: SH

The glossary provides definitions for the abbreviations above.

1.2 Species Description and Biology

Species Description

Ogden's Pondweed (*Potamogeton ogdenii*) is a submerged aquatic plant with freely branching stems that are compressed-filiform (threadlike but flattened) and rigid. The leaves are green to greenish-brown, 5 to 7 centimetres long and 3 to 9 nerved (Hellquist and Hilton 1983). The leaf apex is cuspidate to aristate (sharp-pointed), 1.2 to 2.9 millimetres wide with 1 to 2 rows of lacunae (air cells) on each side of the leaf midrib. The leaf-like stipules (a sheath on the stem at base of leaf) are brown and slightly fibrous with a partially shredded tip. Fruits occur on stalks 10 to 30 millimetres long in terminal cylindric spikes 5 to 11 millimetres long with 2 to 4 whorls. Each orbicular fruit is dark green and 2.2 to 3 millimetres across. Winter buds (turions) can be produced terminally or laterally and are 37 to 92 millimetres long and 26 to 60 millimetres wide with ascending outer leaves (Hellquist and Hilton 1983). In many cases, the winter buds are undifferentiated leaves crowded together (Hellquist and Hilton 1983). Rhizomes are not produced (Hellquist and Hilton 1983).

Ogden's Pondweed is quite similar to several other species of pondweed with the following differences: Hill's Pondweed (*P. hillii*) has non-terminal flowering/fruiting spikes that are 6 to 14 millimitres long with only 1 or 2 whorls per spike; Strict-leaved Pondweed (*P. strictifolius*) has shorter leaves (2 to 6 centimetres) with 3 to 5 veins and stipules that are white and quite fibrous; Flat-stem Pondweed (*P. zosteriformis*) has leaves that are wider (2 to 5 millimetres) and longer (10 to 20 centimetres) with 15 to 25 nerves, and has flowering/fruiting spikes with 7 to 11 whorls per spike.

Species Biology

Ogden's Pondweed is an annual aquatic plant but fruits are only occasionally produced. Winter buds (turions) are uncommonly produced (Hellquist and Hilton 1983) but appear to be the most common method of reproduction (Hellquist and Mertinooke-Jongkind 2003). Although rhizomes are not produced, the plant can re-sprout from fragments (Hellquist and Hilton 1983). Ogden's Pondweed is thought to have originated as a fertile hybrid between Hill's Pondweed and Flat-stem Pondweed (Hellquist and Hilton 1983). Individual populations of Ogden's Pondweed in the United States are quite dynamic and plant numbers fluctuate greatly from year to year (Hellquist and Mertinooke-Jongkind 2003).

1.3 Distribution, Abundance and Population Trends

Ogden's Pondweed is a globally rare species that occurs in southern Ontario (3 historic sites), western Connecticut (2 current and 3 historic sites), eastern and central New York (3 current and 2 historic sites), central Vermont (2 current and 2 historic sites), and western Massachusetts (2 current sites). Globally, there are nine populations considered current plus ten historic populations.

In Canada, Ogden's Pondweed is found only in southeastern Ontario (Figure 1). The first collection was made in 1873 by John Macoun but due to the vague locality of "Hastings County" listed on the herbarium label, this site is plotted in the centre of the county on Figure 1 (site 3). Clearly, such a vague locality cannot be re-confirmed.

Only two other Ontario locations are known (both only from herbarium specimens): Murphys Point Provincial Park (1974; site 1) and Davis Lock on the Rideau Canal (1987; site 2). There are no additional Canadian records (C.B. Hellquist pers. comm. 2009, M.J. Oldham pers. comm. 2009). Nothing is known about abundance or population extent at any of the three Ontario sites. Despite specific searches undertaken by the author in 2005 and 2006 while preparing the COSEWIC status report on the species Ogden's Pondweed could not be found at either of the two more recent sites. Search effort details are found in COSEWIC (2007). A two day search for Ogden's Pondweed at Murphys Point Provincial Park in 2009 was also unsuccessful at locating the species (S. McIntosh pers comm. 2010).

Following NHIC (2009) definitions, all Ontario records are considered "historical" because it has been more than 20 years since they have been recorded despite some effort at re-confirming the species.

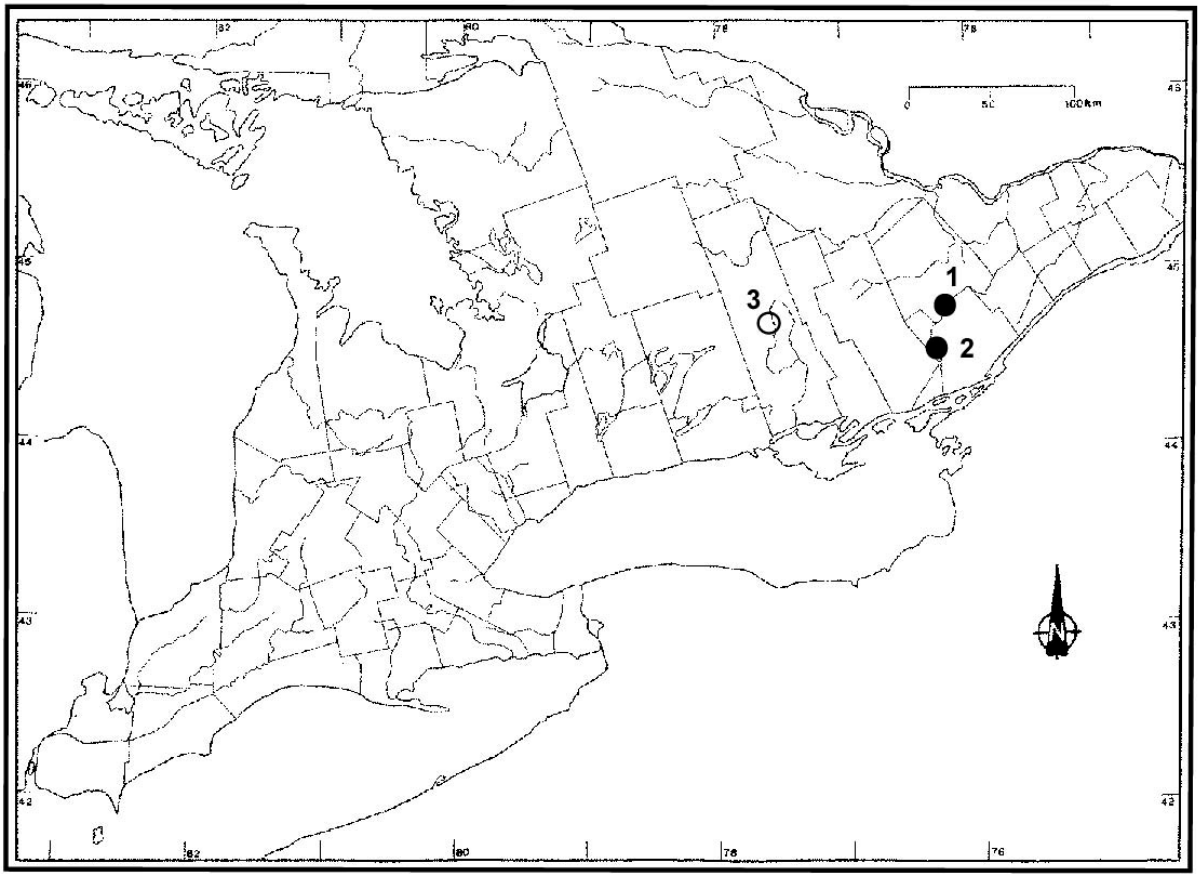

Figure 1. Distribution of Ogden's Pondweed in Ontario. The open circle is an 1873 record that is plotted in central Hastings County due to vague locality data. The closed circles represent sites confirmed in 1974 and 1987.

1.4 **Habitat Needs**

In the United States, Ogden's Pondweed is found in clear, slow-moving streams, beaver ponds, and lakes (Hellquist and Mertinooke-Jongkind 2003). Crow and Hellquist (2000) and Hellquist and Hilton (1983) report the habitat as "alkaline waters". Hellquist and Mertinooke-Jongkind (2003) describe the habitat in the United States as "ponds and lakes with high alkalinity". Since the two more recent Ontario sites are associated with marble bedrock, the water is probably hard (alkaline) there as well.

Ogden's Pondweed is often associated with Flat-stem Pondweed and is occasionally associated with Hill's Pondweed in the United States (Hellquist and Mertinooke-Jongkind 2003). Other associates at United States populations include Strict-leaved Pondweed, Illinois Pondweed (*Potamogeton illinoensis*), Leafy Pondweed (*Potamogeton foliosus*), and Comb-like Pondweed (*Stuckenia pectinata*).

Although the species was not found by the author at the Davis Lock site in 2005, the quiet bays at the site supported a diverse community of pondweeds including: Strict-leaved Pondweed, Robbin's Pondweed (*Potamogeton robbinsii*), and Flat-stem Pondweed. The habitat recorded on the 1987 Davis Lock specimen label (at the Department of Agriculture herbarium) is that the species occurs "In 7-10 feet of water".

The 1974 record of Ogden's Pondweed from Murphys Point Provincial Park is from one of a series of beaver ponds along a small creek with limited flow. In August of 2005, beavers were gone from most of the length of the creek and only a small, central watercourse remained. The only pondweed habitat consisted of shallow, scattered pools along the creek bed. Small populations of five other pondweed species were found in the creek: Leafy Pondweed, Illinois Pondweed, Floating Pondweed (*Potamogeton natans*), Grass-leaved Pondweed (*Potamogeton gramineus*), and Emersed Pondweed (*Potamogeton epihydrus*). The habitat given on the Murphys Point specimen label (at the University of Toronto herbarium) is "Shallow waters of Black Creek, 1 m[etre] upstream from beaver dam".

It is unlikely that the global rarity of Ogden's Pondweed is caused by a requirement for a very specific and highly restricted habitat. More likely, it is rare because of some factor or combination of factors relating to its biology.

1.5 Threats to Survival and Recovery

Due to the lack of known current Ontario populations, the threats discussed below are considered only *plausible* threats based mainly on research from the United States (Hellquist and Mertinooke-Jongkind 2003, COSEWIC 2007). A proper threat assessment would be required if and when Ontario populations are discovered.

Potential threats to Ogden's Pondweed include habitat loss (such as shoreline development or loss of beaver ponds), competition from invasive plants (such as Eurasian Water-milfoil (*Myriophyllum spicatum*)), and eutrophication.

Shoreline development, such as aquatic plant removal, dock installation, or channel dredging, could eliminate Ogden's Pondweed from a site.

Although beaver ponds are ephemeral by nature, if a rare species, such as Ogden's Pondweed, does not spread easily, a population in a pond could be eliminated from an area when the pond was drained, either due to beaver abandonment or by dam removal by landowners.

Invasive species, such as European Frog's-bit (*Hydrocharis morsus-ranae*) and Eurasian Water-milfoil, grow very thickly where they occur and this can block available light for associated native species. Thick growths of invasive species can also outcompete native species, such as Ogden's Pondweed, for available nutrients, as reported in the United States (Hellquist and Mertinooke-Jongkind 2003).

Specific searches for Ogden's Pondweed were undertaken by the author in 2005 and 2006 while preparing the COSEWIC status report on the species (COSEWIC 2007). At Davis Lock in 2005, there was little noticeable impact by invasive plants on the diverse aquatic communities in the quiet bays where Ogden's Pondweed is assumed to have been found in 1987.

There was also little evidence of impacts from invasive plants in Black Creek at Murphys Point in 2005. Eurasian Water-milfoil was noted in 2006 as common in bays of Big Rideau Lake and the Rideau Canal adjacent to and within Murphys Point Provincial Park, but there were also extensive areas with good native aquatic plant diversity and only a limited presence of the Water-milfoil.

Another invasive aquatic that is very common in eastern Ontario is European Frog's-bit. This species was not seen in the vicinity of Davis Lock and was rare along Black Creek and in Hoggs Bay in Murphys Point Provincial Park in 2005 and 2006.

Competition from other more common native pondweeds could also be a threat to Ogden's Pondweed if the other native species are more vigorous in their growth.

Additionally, eutrophication is considered a major threat to the species in the United States (Hellquist and Mertinooke-Jongkind 2003) because the excess nutrients from runoff lead to algal blooms and an increase in competition from non-native species. There is ample evidence of algal blooms and dense populations of invasive species, such as Eurasian Water-milfoil, in parts of the Rideau Canal system.

Although not a threat *per se*, Ogden's Pondweed is also at risk across its range due to its low number of populations which can leave the species vulnerable to stochastic events, such as beaver pond loss or shoreline disturbance. Hellquist and Mertinooke-Jongkind (2003) report a global population of only nine extant sites. Low numbers of populations can also hamper recovery efforts by limiting potential sources of seeds or plants for reintroductions.

One complication to recovery efforts is the difficulty of recognizing Ogden's Pondweed in the field due to its close similarity to several other common species of pondweed. This leaves the species vulnerable to inadvertent population loss if the species isn't recognized during an environmental impact study prior to shoreline development or aquatic plant management.

1.6 **Knowledge Gaps**

What is known about Ogden's Pondweed in Ontario is based solely on herbarium labels on three old specimens. The labels contain no information on population size and little to no data on habitat. The specimens were only identified as Ogden's Pondweed based

on lab study many years after the collections were made. Nobody has ever seen and recognized Ogden’s Pondweed in the field in Ontario.

Significant knowledge gaps of the species in Ontario include:

1. current distribution
2. population size and dynamics
3. species biology and reproduction
4. detailed habitat needs in Ontario
5. site-specific threats
6. the feasibility of reintroduction
7. reintroduction techniques

2.0 RECOVERY

2.1 Recovery Goal

The long-term recovery goal for Ogden's Pondweed is to ensure the persistence of the species in Ontario. Since Ogden's Pondweed has not been recorded in Ontario since 1987 (at Davis Lock), the short-term recovery goal must be to determine if and where the species still occurs in the province.

2.2 Protection and Recovery Objectives

Table 1. Protection and recovery objectives

No.	Protection or Recovery Objective
1	Determine if and where Ogden's Pondweed occurs in Ontario.
2	If extant populations can be found, determine the population size, habitat parameters, population dynamics, and specific threats for those occurrences.
3	Ensure the protection of Ogden's Pondweed habitat where the species still occurs.
4	Consider the feasibility and appropriateness of re-introducing the species to suitable or former sites (if no longer extant) if sufficient habitat is present, if threats to the species can be mitigated, and if proven methods for re-introduction can be found.

2.3 **Approaches to Recovery**

Table 2. Specific approaches to recovery for Ogden's Pondweed in Ontario

Relative Priority	Relative Timeframe	Recovery Theme	Approach to Recovery	Threats or Knowledge Gaps Addressed
1. Determine if and where Ogden's Pondweed occurs in Ontario				
Critical	Ongoing	Inventory	**1.1** Conduct surveys to determine the presence of Ogden's Pondweed – Conduct a comprehensive search of suitable habitat in the areas of the two most recently found sites (Murphys Point and Davis Lock) to determine if the species is present – Search suitable habitat in close proximity to Murphy's Point and Davis Lock sites to determine if the species occurs in close proximity to historic sites – Search for Ogden's Pondweed where Hill's Pondweed (one of Ogden's presumed parents) occurs, such as on Manitoulin Island and the Bruce Peninsula (as suggested in Hellquist and Mertinooke-Jongkind (2003) and by C.B. Hellquist (pers. comm. 2009) – If found, document sites and submit data to the Natural Heritage Information Centre	• Present distribution
2. If extant populations can be found, determine the population size, habitat parameters, population dynamics, and specific threats for those occurrences				
Critical	Ongoing	Research	**2.1** Research the population size, habitat parameters, population dynamics, and specific threats to evaluate the long-term viability of the populations	• All threats, population size and dynamics, species biology, detailed habitat needs

Relative Priority	Relative Timeframe	Recovery Theme	Approach to Recovery	Threats or Knowledge Gaps Addressed
Critical	Ongoing	Inventory, Monitoring, and Assessment	**2.2** Develop and implement a monitoring program to assess population dynamics, threats, and habitat condition	• All threats, population size and dynamics, detailed habitat needs
3. Ensure the protection of Ogden's Pondweed habitat where the species still occurs				
Critical	Short-term	Protection	**3.1** Develop a habitat regulation under ESA 2007 to help control human activity within the species habitat	• Habitat loss
Critical	Ongoing	Protection	**3.2** Review any development proposals for land or shallow water areas adjacent to known sites to ensure the development will have no negative impact on the aquatic communities	• Habitat loss
Critical	Ongoing	Management	**3.3** Ensure that provincial park and federal canal management plans will not negatively impact the sites	• Habitat loss
Necessary	Ongoing	Management	**3.4** If the species is found at any of the historic sites, develop a site-specific management plan (based on the best available information for the species) that will: – Maintain habitat quality – Monitor population dynamics – Reduce invasive species that are present – Determine if eutrophication is impacting the species – Address any newly-found threats to the species – Monitor the effectiveness of management actions	• All threats, population size and dynamics

Relative Priority	Relative Timeframe	Recovery Theme	Approach to Recovery	Threats or Knowledge Gaps Addressed
Critical	Ongoing	Communications	**3.5** Provide information on the species characteristics and distribution to stakeholders, such as Ontario Parks and Parks Canada, to increase awareness of the pondweed and prevent accidental loss of populations	• Habitat loss
4. Consider the feasibility and appropriateness of re-introducing the species to suitable or former sites (if no longer extant) if sufficient habitat is present, if threats to the species can be mitigated, and if proven methods for re-introduction can be found				
Potentially beneficial	Ongoing	Management	**4.1** Assess the feasibility of re-introduction at each of the two post-1970 sites or other suitable sites – Consider site ownership, habitat condition and extent, threats, re-introduction methods, locating a viable source of plants or seeds, costs, monitoring, etc.	• All threats

2.4 Area for Consideration in Developing a Habitat Regulation

Under the ESA 2007, a recovery strategy must include a recommendation to the Minister of Natural Resources on the area that should be considered in developing a habitat regulation. A habitat regulation is a legal instrument that prescribes an area that will be protected as the habitat of the species. The recommendation provided below by the recovery team will be one of many sources considered by the Minister when developing the habitat regulation for this species.

There are three records of Ogden's Pondweed in Ontario. The historic record from "Hastings County" (as the locality is listed on the herbarium label) is too vague and too old (1873) to be considered in developing a habitat regulation for the species. The two more recent records are both associated with the central portion of the Rideau Canal. The Davis Lock site is directly on the canal route. The Murphys Point Provincial Park site is near the mouth of Black Creek which empties into Hoggs Bay of Big Rideau Lake (part of the Rideau Canal).

Ogden's Pondweed has not been re-confirmed at either recent site since the initial records despite searches by the author in 2005 and 2006. Nonetheless, it should not be assumed that the species has disappeared from either site. Small populations could be easily missed, considering how difficult it is to recognize the pondweed in the field due to its similarity to several other commonly associated species of pondweed (see Section 1.4). Numbers of plants at sites in the United States tend to fluctuate widely from year to year (Hellquist and Mertinooke-Jongkind 2003). Thus, searches over several years may be required to confirm the presence or absence of the species at the historic Ontario sites.

As a precautionary measure, to protect the two areas where the species was most recently collected, the following areas should be prescribed as habitat within a habitat regulation. The portion of Black Creek within Murphys Point Provincial Park, Hoggs Bay and the appropriate habitat within the associated bays and shallow water areas of adjacent Big Rideau Lake within the park. Since the park includes several kilometres of shoreline up and downstream from the Hoggs Bay exit of Black Creek, it is not considered necessary at this stage to include additional aquatic areas outside the park within the habitat regulation. The regulation should also include the aquatic habitat downstream of Davis Lock. The specific boundaries of these areas should be determined on a site-specific level based on further study.

If Ogden's Pondweed is found elsewhere in the province, the area around the new site(s) should also be prescribed as habitat within a regulation for the species.

GLOSSARY

Committee on the Status of Endangered Wildlife in Canada (COSEWIC): The committee responsible for assessing and classifying species at risk in Canada.

Committee on the Status of Species at Risk in Ontario (COSSARO): The committee established under section 3 of the *Endangered Species Act, 2007* that is responsible for assessing and classifying species at risk in Ontario.

Conservation status rank: A rank assigned to a species or ecological community that primarily conveys the degree of rarity of the species or community at the global (G), national (N) or subnational (S) level. These ranks, termed G-rank, N-rank and S-rank, are not legal designations. The conservation status of a species or ecosystem is designated by a number from 1 to 5, preceded by the letter G, N or S reflecting the appropriate geographic scale of the assessment. The numbers mean the following:

1 = critically imperiled
2 = imperiled
3 = vulnerable
4 = apparently secure
5 = secure

SH = Historical, not recorded in the province in over 20 years despite some effort to relocate occurrences.

Endangered Species Act, 2007 (ESA 2007): The provincial legislation that provides protection to species at risk in Ontario.

Eutrophication: the process by which lakes, rivers, or wetlands become enriched with excess nutrients (usually from human activity) which tends to cause excessive algal and other plant growth. This often benefits alien species at the expense of native flora and fauna.

Species at Risk Act (SARA): The federal legislation that provides protection to species at risk in Canada. This act establishes Schedule 1 as the legal list of wildlife species at risk to which the SARA provisions apply. Schedules 2 and 3 contain lists of species that at the time the act came into force needed to be reassessed. After species on Schedule 2 and 3 are reassessed and found to be at risk, they undergo the SARA listing process to be included in Schedule 1.

Species at Risk in Ontario (SARO) List: The regulation made under section 7 of the *Endangered Species Act, 2007* that provides the official status classification of species at risk in Ontario. This list was first published in 2004 as a policy and became a regulation in 2008.

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PART 3 - *Ogden's Pondweed - Ontario Government Response Statement*, prepared by the Ontario Ministry of Natural Resources

Ministry of Natural Resources

Natural. Valued. Protected.

Ogden's Pondweed

Ontario Government Response Statement

PROTECTING AND RECOVERING SPECIES AT RISK IN ONTARIO

Species at risk recovery is a key part of protecting Ontario's biodiversity. Biodiversity – the variety of living organisms on Earth – provides us with clean air and water, food, fibre, medicine and other resources that we need to survive.

The *Endangered Species Act*, 2007 (ESA) is the Government of Ontario's legislative commitment to protecting and recovering species at risk and their habitats. As soon as a species is listed as extirpated, endangered or threatened under the ESA, it is automatically protected from harm or harassment. Also, immediately upon listing, the habitats of endangered and threatened species are protected from damage or destruction.

Under the ESA, the Ministry of Natural Resources (the Ministry) must ensure that a recovery strategy is prepared for each species that is listed as endangered or threatened. A recovery strategy provides science-based advice to government on what is required to achieve recovery of a species.

GOVERNMENT RESPONSE STATEMENTS

Within nine months after a recovery strategy is prepared, the ESA requires the Ministry to publish a statement summarizing the government's intended actions and priorities in response to the recovery strategy. The recovery strategy for Ogden's Pondweed was completed on February 18, 2010.
(http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@species/documents/document/286969.pdf)

The response statement is the government's policy response to the scientific advice provided in the recovery strategy. In addition to the strategy, the response statement is based on input from stakeholders, other jurisdictions, Aboriginal communities and members of the public. It reflects the best available traditional, local and scientific knowledge at this time and may be adapted if new information becomes available. In implementing the actions in the response statement, the ESA allows the Ministry to determine what is feasible, taking into account social and economic factors.

Ogden's Pondweed is an underwater plant with branching, thread-like stems and looks very similar to other pondweed species. Fewer than 10 populations are known to exist in the world. In Canada, Ogden's Pondweed is found only in southeastern Ontario. It was recorded at Murphys Point Provincial Park in 1974, and at Davis Lock on the Rideau Canal in 1987. Threats to the species may include habitat destruction and competition from invasive aquatic plants.

Ontario

MOVING FORWARD TO PROTECT AND RECOVER OGDEN'S PONDWEED

Ogden's Pondweed is listed as an endangered species under the ESA which protects both the pondweed and its habitat. The ESA prohibits any damage or destruction of that habitat without authorization. Such authorization would require that conditions established by the Ministry of Natural Resources be met.

The government's goal for the recovery of Ogden's Pondweed is to ensure the persistence of populations where they exist in Ontario.

Protecting and recovering species at risk is a shared responsibility. No single agency or organization has the knowledge, authority, or financial resources to protect and recover all of Ontario's species at risk. Successful recovery requires inter-governmental co-operation and the involvement of many individuals, organizations and communities.

In developing the government response statement, the Ministry considered what actions are feasible for the government to lead directly, and what actions are feasible for the government to support its conservation partners to undertake.

GOVERNMENT-LED ACTIONS

To help protect and recover Ogden's Pondweed, the government will directly undertake the following actions:

- Educate other agencies and planning authorities on the requirement to consider the protection of Ogden's Pondweed and its habitat in planning activities and environmental assessment processes.
- Encourage the submission of Ogden's Pondweed data to the Ministry of Natural Resources' central repository at the Natural Heritage Information Centre.
- Undertake communications and outreach to increase public awareness of species at risk in Ontario.
- Protect Ogden's Pondweed through the ESA. Develop and enforce a regulation protecting the specific habitat of the species.
- Support conservation, agency, municipal and industry partners to undertake activities to protect and recover Ogden's Pondweed. Support will be provided through funding, agreements, permits (including conditions) and advisory services.
- Establish and communicate annual priority actions for government support in order to encourage collaboration and reduce duplication of efforts.

GOVERNMENT-SUPPORTED ACTIONS

The government endorses the following actions as being necessary for the protection and recovery of Ogden's Pondweed. Actions which are noted as "high" will be given priority consideration for funding or for authorizations under the ESA. The government will focus its support on these high priority actions over the next five years.

Focus Area:	**Inventory**
Objective:	Confirm existence of Ogden's Pondweed in Ontario and determine its extent and abundance.
	Actions: 1. (HIGH) Conduct surveys in suitable habitat at and in close proximity to the most recent known sites (Murphys Point and Davis Lock), and document information about each occurrence.
Focus Area:	**Monitoring**
Objective:	Monitor population size and specific threats to the species and its habitat at confirmed sites.
	Actions: 2. Develop and implement a monitoring program to observe population trends, threats and habitat condition at existing sites in Ontario. 3. Provide information on the species' characteristics to conservation partners.

IMPLEMENTING ACTIONS

Financial support for the implementation of actions may be available through the Species at Risk Stewardship Fund, Species at Risk Farm Incentive Program, or Community Fisheries and Wildlife Involvement Program. Conservation partners are encouraged to discuss project proposals related to the actions in this response statement with the Ministry of Natural Resources. The Ministry can also advise whether any authorizations under the ESA or other legislation may be required for undertaking the project.

Implementation of the actions may be subject to changing priorities across the multitude of species at risk, available resources and the capacity of partners to undertake recovery activities. Where appropriate, the implementation of actions for multiple species will be co-ordinated across government response statements.

REVIEWING PROGRESS

The ESA requires the Ministry to conduct a review of progress towards protecting and recovering a species not later than five years from the publication of this response statement. The review will help identify whether adjustments are needed to achieve the protection and recovery of Ogden's Pondweed.

ACKNOWLEDGEMENT

We would like to thank everyone who participated in the development of the "Recovery Strategy for Ogden's Pondweed in Ontario" for their dedication to protecting and recovering species at risk.

For additional information:
Visit the species at risk website at
ontario.ca/speciesatrisk
Contact your MNR district office
Contact the Natural Resources Information Centre
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