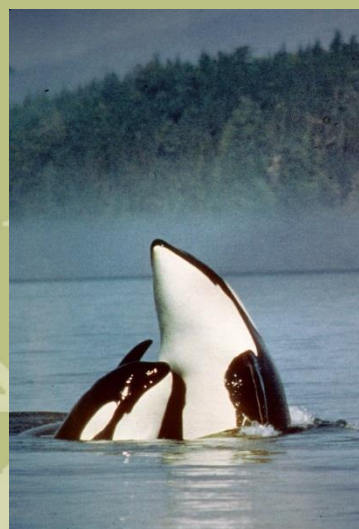


PROPOSED

Species at Risk Act
Action Plan Series

Multi-species Action Plan for Gulf Islands National Park Reserve of Canada



2017

Canada

2 **Recommended citation:**

3
4 Parks Canada Agency. 2017. Multi-species Action Plan for Gulf Islands National Park
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6 Agency, Ottawa. vi+ 24 pp.

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16 For copies of the action plan, or for additional information on species at risk, including
17 COSEWIC Status Reports, residence descriptions, recovery strategies, and other
18 related recovery documents, please visit the [Species At Risk Public Registry](http://www.registrelep-sararegistry.gc.ca)¹.
19
20
21

22 **Cover illustration:** © Parks Canada Agency: Top left to right-Contorted-pod Evening-
23 primrose by Pippi Lawn; Common Nighthawk by Ian Robert Reid, Killer Whale by
24 unknown photographer. Bottom left to right-Edwards' Beach Moth by Nicole Kroeker,
25 Foothill Sedge by Pippi Lawn; Silky Beach Pea by Pippi Lawn
26

27 Également disponible en français sous le titre :
28 Plan d'action visant des espèces multiples dans la réserve de parc national des Îles-
29 Gulf [proposition].
30
31

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¹ <http://www.registrelep-sararegistry.gc.ca>

RECOMMENDATION AND APPROVAL STATEMENT

The Parks Canada Agency led the development of this federal action plan under the Species at Risk Act. The relevant Field Unit Superintendent hereby approves this document indicating that the relevant Species at Risk Act requirements related to action plan development have been fulfilled in accordance with the Act.

Recommended by:



Marcia Morash
Superintendent, Gulf Islands National Park Reserve of Canada, Parks Canada Agency

Approved by:



Brian Reader
Acting Field Unit Superintendent, Coastal BC Field Unit, Parks Canada Agency

PREFACE

The federal, provincial, and territorial government signatories under [the Accord for the Protection of Species at Risk](#) (1996)² 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 action plans for species listed as Extirpated, Endangered, and Threatened for which recovery has been deemed feasible. They are also required to report on progress five years after the publication of the final document on the Species At Risk Public Registry.

Under SARA, one or more action plans provide the detailed recovery planning that supports the strategic directions set out in the recovery strategies for the species. The plan outlines what needs to be done to achieve the population and distribution objectives (previously referred to as recovery goals and objectives) identified in the recovery strategies, including the measures to be taken to address the threats and monitor the recovery of the species, as well as the proposed measures to protect critical habitat that has been identified for the species. The action plan also takes into account First Nations perspectives on species at risk, and it includes an evaluation of the socio-economic costs of the action plan and the benefits to be derived from its implementation. The action plan is considered one in a series of documents that are linked and should be taken into consideration together with the COSEWIC status reports, management plans, recovery strategies and other action plans produced for these species.

The Minister responsible for the Parks Canada Agency (the Minister of the Environment and Climate Change) is the competent ministers under SARA for the species found in Gulf Islands National Park Reserve of Canada and has prepared this action plan to implement the recovery strategies on/in Gulf Islands National Park Reserve lands/waters, as they apply to the site, as per section 47 of SARA. It has been prepared in cooperation with [names of First Nations], Environment and Climate Change Canada, the Department of Fisheries and Oceans, and the Province of British Columbia as per section 48(1) of SARA.

Implementation of this action plan is subject to applicable appropriations, priorities, and budgetary constraints of the participating jurisdictions and organizations.

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

98 **ACKNOWLEDGMENTS**

99 Thanks are extended to employees and representatives of the [*To be added: names of*
100 *individuals and organizations*] for their input and perspectives during the action planning
101 process. Thanks also to [*To be added: Names of individuals and organizations*] for
102 reviewing a draft of this action plan.

Executive summary

The *Multi-species Action Plan for Gulf Islands National Park Reserve of Canada* applies to lands and waters occurring within the boundaries of Gulf Islands National Park Reserve (GINPR). The plan meets the requirements for action plans set out in the *Species at Risk Act* (SARA (s.47)) for species requiring an action plan that regularly occur at this site. Measures described in this plan will also provide benefits to other species of conservation concern that regularly occur at GINPR.

Where it has been determined that the site can conduct management activities to help recover and/or manage a species, site-specific objectives are identified in this plan and represent the site's contribution to objectives presented in federal recovery strategies and management plans. Species at risk, their residences, and their habitat are protected by existing site regulations and management regimes as well as by SARA. Additional measures that will contribute to the survival and recovery of the species in the site are described in this plan. These measures were identified based on threats and measures outlined in federal and provincial status assessments and recovery documents, as well as knowledge of the status and needs of each species at the site. Population monitoring measures are also identified for the species for which management activities at the site can contribute to recovery.

Additional critical habitat is identified in this action plan for Contorted-pod Evening-primrose. Measures used for protection of critical habitat in GINPR are described.

Measures proposed in this action plan will have limited socio-economic impact and place no restrictions on land use outside of GINPR. Direct costs of implementing this action plan will be borne by Parks Canada. Indirect costs are expected to be minimal, while benefits will include positive impacts on site ecological integrity, greater awareness and appreciation of the value of biodiversity to Canadians, and opportunities for engagement of local communities and Coast Salish groups.

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1. Context

Gulf Islands National Park Reserve (GINPR) comprises approximately 31 square kilometers of land and intertidal areas scattered over 15 of the southernmost Gulf Islands (Saturna, North Pender, South Pender, Mayne, Prevost, Portland, Sidney Islands and a number of small islands and islets) and a small parcel of land on Vancouver Island in south-western British Columbia. In addition, GINPR is responsible for the management of about six square kilometers of marine area located off-shore of waterfront portions and around islets of the national park reserve.

The southern Gulf Islands embody a rich human history stretching from thousands of years ago to the present. Coast Salish people have occupied the region since time immemorial and continue to live and use these islands. They maintain a deep spiritual connection to the area and traditional use continues today. Over the last two centuries, members of many other cultures, including Hawaiians, African-Americans, Japanese, Chinese, and Europeans have joined Coast Salish residents. Each culture has brought their own distinctive tradition and approach, adapting to and modifying the natural environment of the region over the years and leaving their indelible impact on the region's cultural landscape. First Nations archaeological sites as well as historical features from other groups provide tangible evidence of the history of the region's inhabitants who lived out their lives in this ecologically diverse landscape.

GINPR lies within the Dry Coastal Douglas-fir ecosystem—one of Canada's most at risk ecosystems. Although the national park reserve contains examples of many of the various components found within the Coastal Douglas fir ecosystem, younger forest ecosystems make up the majority of the reserve, with significantly smaller amounts of mature forest and Garry Oak and associated ecosystems. Freshwater lake and pond and stream and gully ecosystems make up a small portion of the national park reserve and are also rare throughout the Gulf Islands.

Maintenance and restoration of ecological integrity is the first priority of national parks (*Canada National Parks Act* s.8(2)). Species at risk, their residences, and their habitat are therefore protected in Canada's national parks by existing national park regulations and management regimes. In addition, the *Species at Risk Act* (SARA) prohibitions protecting individuals and residences apply automatically when a species is listed, and all critical habitat in national parks and national historic sites must be legally protected within 180 days of being identified.

Recovery measures for species at risk will be integrated within the framework of Parks Canada's ongoing ecological integrity and management programs. National parks maintain comprehensive, scientifically rigorous ecological integrity monitoring and restoration programs that are organized according to the major ecosystems present in the park. The recovery measures described in this action plan are therefore organized in the same manner. Parks Canada's ecological integrity and management programs make contributions to the recovery of species at risk by providing inventory and monitoring data, and through the implementation of habitat restoration projects and

other conservation measures. The species-directed measures outlined in this plan will in turn contribute to maintaining and improving ecological integrity at both sites by improving the conservation status of native species and their habitat and maintaining biodiversity.

A number of federal and provincial recovery strategies and plans, management plans, and action plans have been prepared for species considered in this action plan. Along with status assessments, those documents provide guidance for the recovery of individual species, including strategic directions, recovery objectives, critical habitat, and threats. This action plan was developed and will be implemented in a manner that is consistent with those recovery documents, and should be viewed as part of this body of linked strategies and plans.

1.1. Scope of the action plan

The geographic scope of this action plan includes all federally owned lands and waters managed by GI-NPR (Figure 1). In addition, GINPR owns various rights of way on adjacent land and this plan will include GINPR management of species at risk on these rights of way where applicable. This multi-species action plan has been written specifically for GINPR because the Parks Canada Agency (PCA) is legally responsible for species at risk on PCA lands and waters, has the ability to take direct conservation action, and deals with different threats, legislation, and management priorities compared to areas outside the park reserve.

This action plan addresses SARA-listed species that regularly occur in GINPR which require an action plan under SARA (s.47), as well as other species of conservation concern (Table 1). This approach both responds to the legislated requirements of the SARA and provides the Parks Canada Agency with a comprehensive plan for species conservation and recovery at the site. The plan will be amended as required to meet the SARA requirements for action planning.

Indigenous Peoples have a critical role to play in the assessment, restoration, and management of species at risk. W̱SÁNEĆ and Hul'q'umi'num people have been actively managing and harvesting species for millennia in the lands and waters that now form GINPR and consequently have much to contribute. This plan has incorporated some of the knowledge and perspectives of local Coast Salish people regarding species at risk as well as those cultural species of concern.

Gulf Islands National Park Reserve

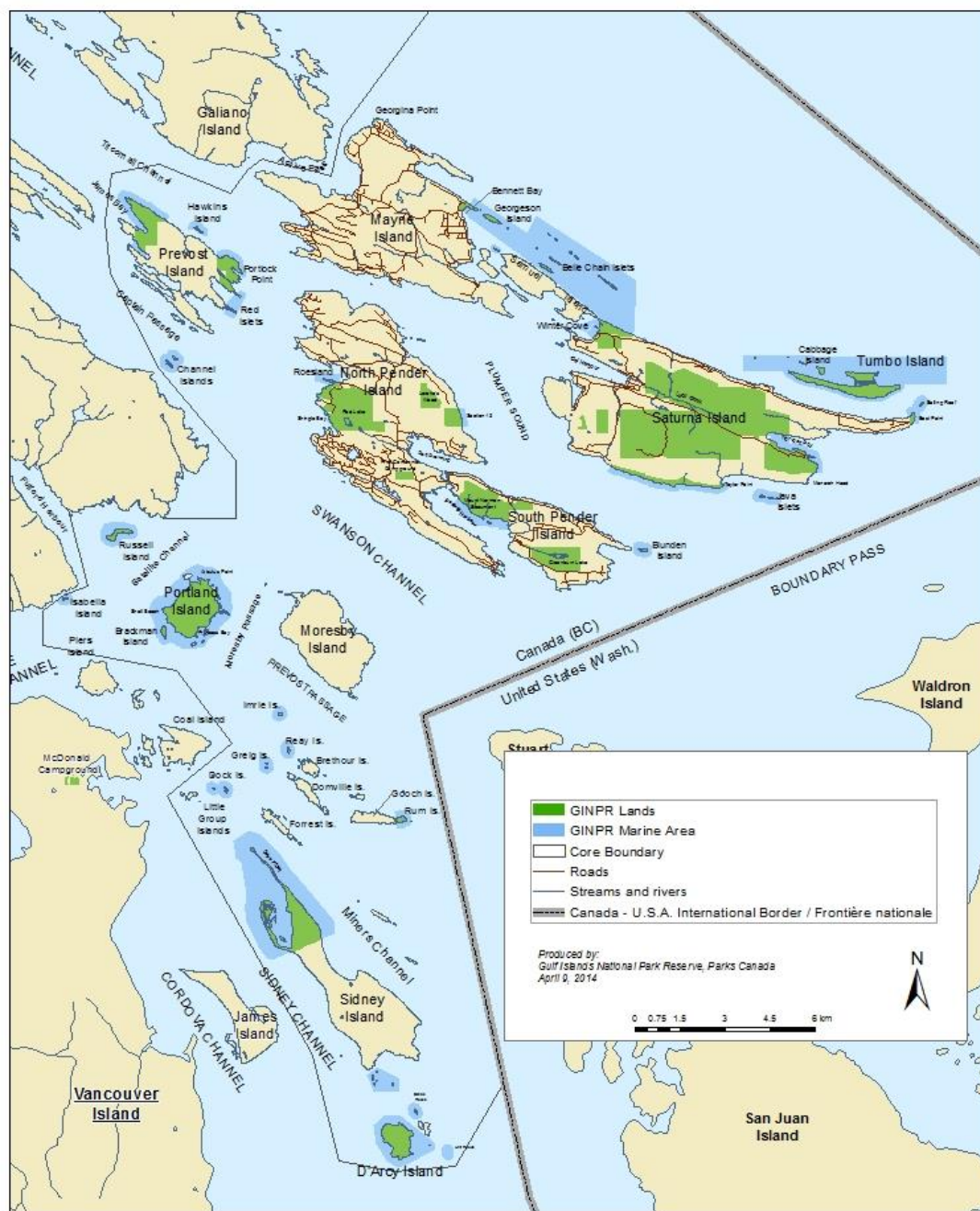


Figure 1. Geographic scope for the Multi-species Action Plan for Gulf Islands National Park Reserve of Canada.

Table 2. Species included in the multi-species action for Gulf Islands National Park Reserve (status as of November, 2016)

Species	Scientific name	COSEWIC status	SARA status
Contorted-pod Evening-primrose	<i>Camissonia contorta</i>	Endangered	Endangered
Foothill Sedge	<i>Carex tumulicola</i>	Endangered	Endangered
Southern Resident Killer Whale	<i>Orcinus orca</i>	Endangered	Endangered
Little Brown Myotis	<i>Myotis lucifugus</i>	Endangered	Endangered
West Coast Transient Killer Whale	<i>Orcinus orca</i>	Threatened	Threatened
Slender Popcornflower	<i>Plagiobothrys tenellus</i>	Threatened	Threatened
Marbled Murrelet	<i>Brachyramphus marmoratus</i>	Threatened	Threatened
Common Nighthawk	<i>Chordeiles minor</i>	Threatened	Threatened
Edward's Beach Moth	<i>Anarta edwardsii</i>	Endangered	Endangered
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Threatened	Threatened
Sharp-tailed Snake	<i>Contia tenuis</i>	Endangered	Endangered
Ancient Murrelet	<i>Synthliboramphus antiquus</i>	Special Concern	Special Concern
Band-tailed Pigeon	<i>Patagioenas fasciata</i>	Special Concern	Special Concern
Great Blue Heron <i>fannini</i> subspecies	<i>Ardea herodias fannini</i>	Special Concern	Special Concern
Pacific Harbour Porpoise	<i>Phocoena phocoena</i>	Special Concern	Special Concern
Peregrine Falcon <i>pealei</i> subspecies	<i>Falco peregrinus pealei</i>	Special Concern	Special Concern
Red-legged Frog	<i>Rana aurora</i>	Special Concern	Special Concern
Steller Sea Lion	<i>Eumetopias jubatus</i>	Special Concern	Special Concern
Threaded Vertigo	<i>Eumetopias jubatus</i>	Special Concern	Special Concern
Short-eared Owl	<i>Asio flammeus</i>	Special Concern	Special Concern
Western Screech-owl <i>kennicottii</i> subspecies	<i>Megascops kennicottii kennicottii</i>	Threatened	Special Concern
Barn Swallow	<i>Hirundo rustica</i>	Threatened	Not listed
Silky Beach Pea	<i>Lathyrus littoralis</i>	Threatened	Not listed
Georgia Basin Bog Spider	<i>Gnaphosa snohomish</i>	Special Concern	Not listed
Horned Grebe, western population	<i>Podiceps auritus</i>	Special Concern	Not listed
Western Grebe	<i>Aechmophorus occidentalis</i>	Special Concern	Not listed

2. Site-based population and distribution objectives

The potential for the Parks Canada Agency to undertake management actions at the park reserve that will contribute to the recovery of each species was assessed. Site-specific population and distribution objectives were developed (Appendix A) to identify the contribution that GINPR can make towards achieving the objectives presented in federal recovery strategies and management plans. Monitoring activities are reported in Appendix A rather than in the tables of recovery measures (Appendices B and C) because they are directly linked to the site population and distribution objectives. If there is little opportunity for the park reserve to contribute to the recovery of a species, site-specific objectives and conservation actions may be limited to protection measures in place under the *Canada National Parks Act* and SARA, population monitoring, raising

awareness amongst Canada, habitat maintenance, and restoration through the existing park reserve management regime. For many species, population and distribution objectives for GINPR are not meaningful at the scale of this action plan for various reasons, including 1) threats cannot be controlled in the site or do not exist in the site (e.g., wide-spread disease, loss of overwintering habitat); 2) species is only transient or does not occur on land over which the site has jurisdiction (e.g., migrates through site, breeding is not confirmed, or occurs in site waters); and, 3) population within the site is a very small part of the Canadian distribution or is unknown or unconfirmed.

3. Conservation and recovery measures

GINPR is primarily a coastal park reserve and protects parcels of land and coastline on a number southern Gulf Islands. The lands and waters of the park reserve are rich and biologically diverse and encompass a great variety of terrestrial and marine ecosystems and habitats. The distributed and fragmented nature of GINPR means that the ecosystems, habitats, and species found within park reserve lands and waters are often closely connected to areas outside the park reserve. This connection to the surrounding landscape means that successful protection of species and ecosystems at risk in GINPR will often require collaborative action by adjacent land managers.

GINPR lies in the traditional territory of many Coast Salish First Nations and collaboration with Coast Salish partners is key to the park reserve's operation. Where appropriate and in consultation with Coast Salish Nations, traditional knowledge (TK) for the species listed in this action plan will be considered during the implementation of this plan. Additionally, information shared on species listed in this plan as well as on other culturally important species will be incorporated into other conservation and management measures for GINPR where appropriate and in consultation with Coast Salish Nations.

The development of this action plan included an assessment of the knowledge, threats, and population status of each species at risk in GINPR. When a species' recovery could be influenced by management actions in GINPR then site-specific population and distribution objectives were developed for that species. GINPR will contribute to species recovery through 14 prioritized actions, 10 of which GINPR commits to implement and four that will be encouraged through partnerships or when additional funding becomes available (Appendices B and C). A number of factors were considered in prioritizing these actions including: ecological effectiveness, visitor experience, external relations, and budgetary opportunities and constraints. Wherever possible, GINPR is taking an ecosystem approach and prioritizing actions that effectively and efficiently aid the recovery of multiple species. Actions identified in this plan fall into two broad themes: 1) conservation, and 2) outreach and engagement.

Conservation: Restoration and protection of habitats and populations are key activities for the recovery of species at risk. The park reserve will continue to work on projects such as conservation of rare Garry Oak and coastal sand ecosystems, restoration of rare species populations, and monitoring the ecosystems and species at risk in the park reserve. Monitoring is especially important to maintain situational awareness about

emerging threats and identify new opportunities for restoration and protection. Activities in areas with species at risk will be guided by the recovery approaches identified in federal recovery planning documents.

Outreach and engagement: GINPR receives over 140,000 visitors each year and is close to vibrant urban centres of Victoria, Vancouver and Seattle. This provides opportunities to engage visitors and the public through on-site interpretation (e.g., signage) and off-site outreach (e.g., website, social media) on matters related to the many marine and terrestrial species at risk, rare ecosystems, and environmental challenges faced by the park reserve and region. The park reserve is also a neighbour to several island communities, presenting an opportunity to work with adjacent landowners in protecting species at risk. Collaboration with the public, visitors, business licence holders, and land managers will be key to the survival of many species which use the park reserve.

4. Critical habitat

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” (SARA s.2(1)). At the time of writing of this document it was possible to identify additional critical habitat in the park reserve for Contorted-pod Evening-primrose. Critical habitat has already been identified in the park reserve in recovery strategies for Contorted-pod Evening-primrose, Foothill Sedge, Slender Popcornflower, and Southern Resident Killer Whale and more will be identified in the future when possible (Fisheries and Oceans Canada 2011; Parks Canada Agency 2011 and 2013). Where critical habitat identification is not complete for species covered in this action plan, it will be identified in upcoming or revised action plans or revised recovery strategies; refer to the schedule of studies in relevant recovery strategies and action plans for further details.

4.1. Identification of critical habitat for Contorted-pod Evening-primrose

4.1.1. Geographic location

Additional critical habitat is identified for Contorted-pod Evening-primrose at the tip of Sidney Spit, Sidney Island (see Figure 2). This area includes occupied and expansion habitat as defined in the recovery strategy (Parks Canada Agency 2011).

The biophysical attributes of critical habitat for Contorted-pod Evening-primrose including occupied and expansion habitat are detailed in section 7.1.1 of the recovery strategy (Parks Canada Agency 2011). The additional critical habitat for Contorted-pod Evening-primrose occurs where the biophysical attributes described in section 7.1 of the recovery strategy are met (Parks Canada Agency 2011).

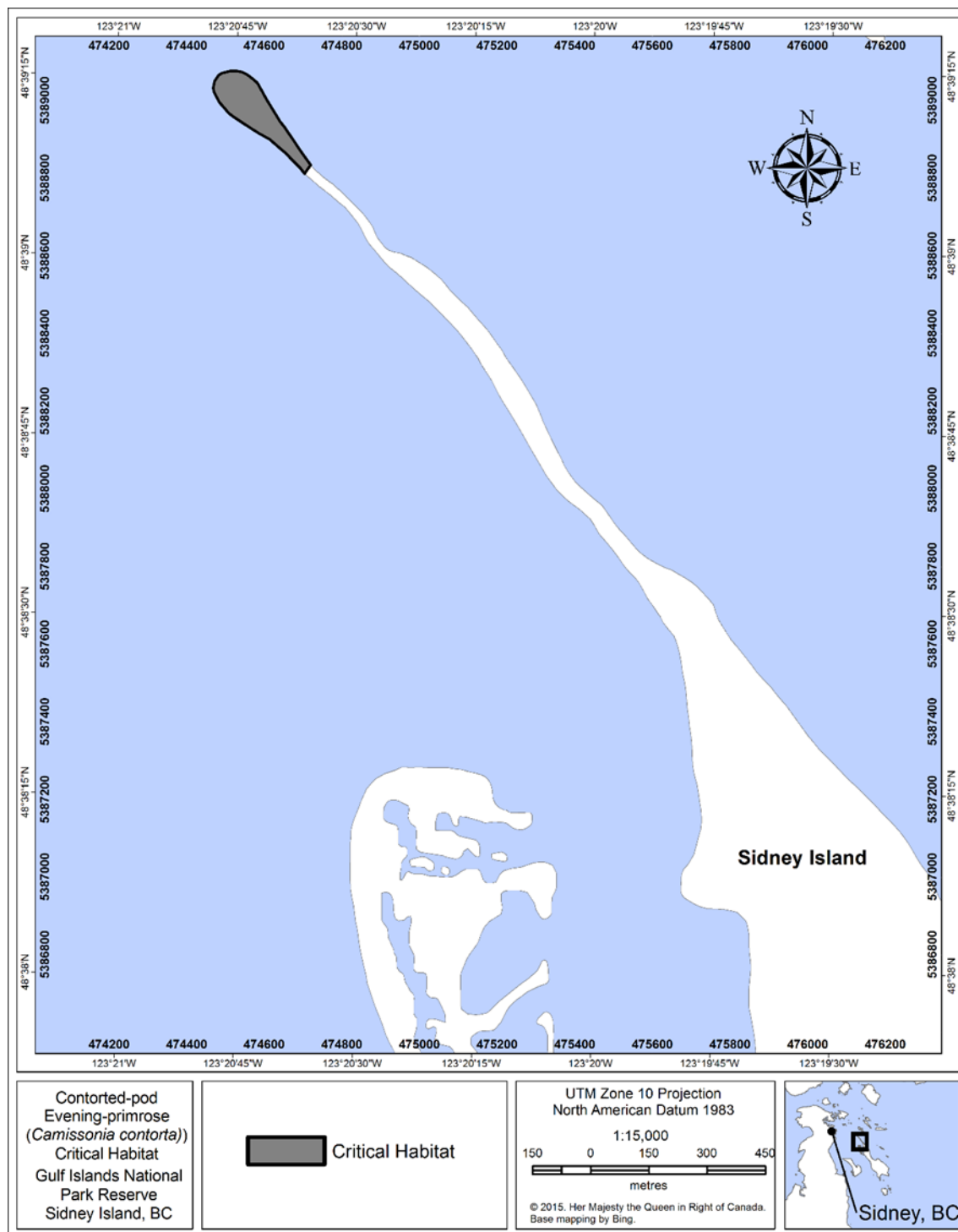


Figure 2: Critical habitat for Contorted-pod Evening-primrose in Gulf Islands National Park Reserve on Sidney Island, BC.



Figure 3: Typical habitat for Contorted-pod Evening-primrose in Canada.

4.2. Proposed measures to protect critical Habitat

The critical habitat identified in this action plan and in other recovery documents within GINPR will be legally protected from destruction as per section 58 of the SARA.

5. Evaluation of socio-economic costs and benefits

The Species at Risk Act requires the responsible federal minister to undertake “an evaluation of the socio-economic costs of the action plan and the benefits to be derived from its implementation.”

5.1. Costs

The total cost to implement the action plan will be borne by Parks Canada out of existing salaries and goods and services dollars. This includes incremental salary costs, materials, equipment, and contracting of professional services for measures outlined in Appendix B. No major socio-economic costs to partners, stakeholders or First Nations

are expected as a result of this action plan. Additional resources or partnerships will be sought to support the measures outlined in Appendix C.

Many of the proposed measures will be integrated into the operational management of GINPR and there will be few new costs. These costs to the government will be covered by prioritization of existing funds and salary dollars at the site and thereby will not result in additional costs to society.

The action plan applies only to lands and waters in GINPR, and does not bring any restrictions to land use outside the park or on First Nation reserve lands that reside within the boundaries of the park. As such, this action plan will place no direct socio-economic costs on the public. However, minor restrictions may be placed on visitor activities on park lands and waters to protect and recover species at risk.

5.2. Benefits

Measures presented in this action plan for GINPR will contribute to meeting recovery strategy objectives for Threatened and Endangered species, and will also contribute to meeting management objectives for species of Special Concern. These measures are expected to have an overall positive impact on ecological integrity and enhance opportunities for appreciation of the park reserve and the species by visitors and the general public. This action plan includes measures that could result in benefits to Canadians, such as positive impacts on biodiversity and the value individuals place on preserving biodiversity (Federal, Provincial, Territorial Governments of Canada, 2014).

The proposed measures seek a balanced approach to reducing or eliminating threats to species-at-risk populations and habitats, and include protection of individuals and their habitat (e.g., restrictions to human activities within areas occupied by the species, combined with ongoing research and monitoring), invasive alien plant species management, potential species re-establishment, and increasing public awareness and stewardship (e.g., signage, visitor programs, and highlights in communication media).

Potential economic benefits of the recovery of the species at risk found in GINPR cannot be easily quantified, as many of the values derived from wildlife are non-market commodities that are difficult to appraise in financial terms. Wildlife, in all its forms, has value in and of itself, and is valued by Canadians for aesthetic, cultural, spiritual, recreational, educational, historical, economic, medical, ecological and scientific reasons. The conservation of wildlife at risk is an important component of the Government of Canada's commitment to conserving biological diversity, and is important to Canada's current and future economic and natural wealth.

Implementing this action plan is expected to have benefits for park reserve visitors, local residents and Coast Salish groups. Community knowledge is often taken into consideration in species at risk management in GINPR. Some activities in the plan may create opportunities for local residents to become involved in the recovery of species at risk and for cooperation and community partnerships in Species at Risk recovery. Benefits should be relatively evenly distributed across individuals in local communities,

and opportunities for involvement will be available to all local residents. These include opportunities to learn about and take part in the recovery of culturally important species at risk, opportunities for visitors and local communities to be involved in conservation issues, opportunities for integration of Coast Salish traditional knowledge into conservation issues in GINPR, and greater awareness of Coast Salish values and culture among local residents and visitors to the park reserve. In doing so the plan supports the goals described in the preamble of the *Species at Risk Act* that “the traditional knowledge of the aboriginal peoples of Canada should be considered in the assessment of which species may be at risk and in developing and implementing recovery measures”.

6. Measuring progress

Reporting on implementation of the action plan (under s. 55 of SARA) will be done by assessing progress towards implementing the measures listed in Appendix B. Reporting on the ecological and socio-economic impacts of the action plan will be done by assessing progress towards meeting the site-based population and distribution objectives.

7. Indigenous traditional knowledge and perspectives

[To be added after completion of consultation with First Nations]

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488 Victoria, BC. 27 pp.
489

Appendix A: Species information, objectives and monitoring plans for species at risk in Gulf Islands NPR.

Species	National objectives ³	Site-Based population & distribution objectives	Population Trend in GINPR	Population monitoring ⁴	General information and broad site approach
Contorted-pod Evening-primrose (CPEP) (Endangered)	1 - Maintain the known extent of occurrence for the species in Canada (by 2015). 2 - Maintain population sizes for all extant locations at current or higher levels (by 2015). 3 - Ensure all eight extant populations reach, and are maintained at, no less than their minimum viable population size (by 2020). 4 - Establish one additional population (to replace the single known extirpated population) at a site with suitable habitat within the known range of the species in Canada, and maintain it at no less than its minimum viable population size (by 2020).	Maintain the CPEP population size and extent on Sidney Spit at current or higher levels. Explore establishment of a new subpopulation of CPEP on Sidney Island.	Unknown (annual survey data compiled from 2012 to-2016. Data presents high inter-annual variability.)	Annual population survey and mapping as part of existing monitoring framework at GINPR.	Through a holistic plan to restore the ecosystems of Sidney Island GINPR will undertake work to restore coastal sand, forest, and meadow ecosystems and individual species at risk that rely on them.

³ National objectives as per most recent versions of relevant recovery documents found in References section.

⁴ Where population and distribution objectives have been established for GINPR, monitoring is designed to directly measure success in achieving those goals.

Species	National objectives ³	Site-Based population & distribution objectives	Population Trend in GINPR	Population monitoring ⁴	General information and broad site approach
Edwards' Beach Moth (Endangered)	Proposed Recovery Strategy: 1- to ensure the persistence of Edwards' Beach Moth at all extant sites (and any new sites) and maintain its current distribution within its range in British Columbia.	Edwards' Beach Moth continues to be present on Sidney Spit.	Unknown.	Moth surveys in coastal sand and marsh ecosystems on Sidney Island will be conducted at least once every five years as part of existing monitoring framework at GINPR.	Through a holistic plan to restore the ecosystems of Sidney Island GINPR will undertake work to restore coastal sand, forest, and meadow ecosystems and individual species at risk that rely on them.
Foothill Sedge (Endangered)	1 - Maintain the seven extant populations of Foothill Sedge. 2 - Prevent declines in the known distribution of Foothill Sedge populations in Canada.	A stable or increasing Foothill Sedge population size and extent on Sidney Island.	Surveys from 2011 and 2014 suggest a stable population. Additional surveys needed for more definitive assessment.	Population census at least once every 3 years as part of existing monitoring framework at GINPR.	Through a holistic plan to restore the ecosystems of Sidney Island GINPR will undertake work to restore coastal sand, forest, and meadow ecosystems and individual species at risk that rely on them.

Species	National objectives ³	Site-Based population & distribution objectives	Population Trend in GINPR	Population monitoring ⁴	General information and broad site approach
Slender Popcornflower (Threatened)	<p>1 - Maintain the Saturna Island population of Slender Popcornflower.</p> <p>2 - Maintain the habitat at the Galiano Island population 1, Galiano Island population 2, Lone Tree Hill, Mayne Island, South Pender Island, and North Pender Island locations while the feasibility of population restoration is assessed for Slender Popcornflower.</p> <p>3 - Establish and/or augment populations to increase abundance and distribution if determined to be feasible and biologically appropriate for Slender Popcornflower.</p>	<p>A stable or increasing Slender Popcornflower population size and extent on Saturna Island, GINPR.</p> <p>Assess the feasibility of habitat maintenance and population restoration (re-introduction) at Mt. Norman and restore (re-introduce) the Slender Popcornflower population on Mt. Norman (S. Pender Island) if determined to be feasible and biologically appropriate.</p>	Unknown (Annual survey data compiled from 2014 to 2016. Data presents high inter-annual variability)	Annual population census and mapping of all subpopulations in GINPR as part of existing monitoring framework at GINPR.	Only a small amount of the population is on park reserve land, but GINPR will work with adjacent land owners where appropriate to protect populations and look to restoration of subpopulations on park reserve land.

Species	National objectives ³	Site-Based population & distribution objectives	Population Trend in GINPR	Population monitoring ⁴	General information and broad site approach
Coastal Scouler's Catchfly (Endangered)	<p>To attain viable self-sustaining populations of Coastal Scouler's Catchfly distributed throughout its historic range in Canada with a minimum of at least eight populations by:</p> <p>Maintaining both extant populations/subpopulations at no less than their current levels of abundance.</p> <p>Establishing at least six additional populations.</p>	Assess habitat suitability and learn population restoration techniques required to establish a new population in GINPR through experimental trials.	Unknown (No known occurrences in GINPR prior to experimental translocation in 2012. Present since 2012.)	Annual site visits to monitor and inspect trials as part of existing monitoring framework at GINPR.	Cooperate with and support conservation and recovery initiatives developed by other agencies and partners that can be applied within the national park reserve.
Golden Paintbrush (Endangered)	<p>To attain viable and self-sustaining populations of golden paintbrush distributed throughout its historic range in Canada with a minimum of at least nine populations by:</p> <p>Maintaining both existing populations at their current levels of abundance.</p> <p>Establishing at least seven new populations.</p>	Assess habitat suitability and learn population restoration techniques required to establish a new population in GINPR through experimental trials.	Unknown (No known occurrence in GINPR prior to experimental translocation in 2009. Present since 2009.)	Annual site visits to monitor and inspect trials as part of existing monitoring framework at GINPR.	Cooperate with and support conservation and recovery initiatives developed by other agencies and partners that can be applied within the national park reserve.

Species	National objectives ³	Site-Based population & distribution objectives	Population Trend in GINPR	Population monitoring ⁴	General information and broad site approach
Silky Beach Pea (not listed)	N/A	A stable or increasing Silky Beach Pea population and extent on Sidney Spit.	Unknown (Annual survey data compiled from 2014-2016.)	Population census and mapping at least once every 3 years as part of existing monitoring framework at GINPR.	Through a holistic plan to restore the ecosystems of Sidney Island GINPR will undertake work to restore coastal sand, forest, and meadow ecosystems and individual species at risk that rely on them.
Common Nighthawk (Threatened)	<p>The short-term population objective is to halt the national decline by 2025 while ensuring the population does not decrease more than 10% over this time.</p> <p>The long-term (i.e., after 2025) population objective is to ensure a positive 10-year population trend in Canada.</p> <p>The distribution objective is to maintain the current extent of occurrence (i.e., the area that encompasses the geographic distribution of all known populations) in Canada</p>	A stable or increasing number of nesting Common Nighthawks on Sidney Island, GINPR.	Unknown (Annual survey data compiled from 2015-2016.)	Population survey once every 3 years as part of existing monitoring framework at GINPR.	Through a holistic plan to restore the ecosystems of Sidney Island GINPR will undertake work to restore coastal sand, forest, and meadow ecosystems and individual species at risk that rely on them.

Species	National objectives ³	Site-Based population & distribution objectives	Population Trend in GINPR	Population monitoring ⁴	General information and broad site approach
Barn Swallow (Not listed)	N/A	A stable or increasing number of nesting Barn swallows on Sidney Island, GINPR.	Unknown	Annual survey as part of existing monitoring framework at GINPR. ⁵	Through a holistic plan to restore the ecosystems of Sidney Island GINPR will undertake work to restore coastal sand, forest, and meadow ecosystems and individual species at risk that rely on them.
All other species not listed above (see Table 2).		No objective established because threats in the park reserve are unknown or GINPR management actions will not contribute to conservation within the park reserve, and GINPR is of limited importance to the species' national recovery.		Opportunistically record observations and any changes to the status of species in GINPR.	The park reserve will continue to protect individuals and suitable habitat on park reserve lands and support partners where feasible on recovery and protection of these species. Additionally, GINPR will work with partners to conduct opportunistic surveys for under-surveyed species in the park reserve and adjust management approaches appropriately when new populations or threats are found.

Appendix B: Conservation and recovery measures that will be conducted by Gulf Islands National Park Reserve (GINPR).

Species	Measure number	Measure	Desired Outcome	Threat or recovery measure addressed ⁵	Timeline
Coastal/Marine					
Contorted-pod Evening-primrose, Silky Beach Pea, Edwards' Beach Moth, and Common Nighthawk	1	<u>Habitat Conservation</u> : Removal of priority exotic invasive species from coastal sand ecosystem habitat at Sidney Island. Long term goal is eradication of priority invasive species from coastal sand habitat management areas at Sidney Island.	Within 10 years the percent cover of priority invasive plant species <10% within habitat management areas.	Invasive alien plant species (PCA 2011, COSEWIC 2013, COSEWIC 2009). Habitat loss or degradation (Environment Canada 2015).	Ongoing annually.
Contorted-pod Evening-primrose	2	<u>Population Recovery</u> : Develop and implement a population augmentation plan if needed for the Sidney Spit population.	Population size and extent is stable or increasing.	Species demographics (PCA 2011).	Dependent on results of activity 1
Contorted-pod Evening-primrose	3	<u>Population Recovery</u> : Experimental trial to investigate the feasibility of expanding the distribution of this species and create a second subpopulation at Sidney Island.	An experimental translocation is underway by 2021.	Species demographics (PCA 2011).	Dependent on outcome of feasibility assessment and funding.

⁵ From existing federal recovery strategies or, when not available, provincial recovery plans or COSEWIC reports.

Species	Measure number	Measure	Desired Outcome	Threat or recovery measure addressed ⁵	Timeline
Common Nighthawk	4	<u>Visitor awareness and compliance</u> : Provide visitors with information regarding species protection.	Interpretive signage and fencing has been installed, trails have been realigned and nest areas are closed and interpreted each year.	Promote compliance with Federal (e.g., SARA, Migratory Birds Convention Act (1994)), Provincial, and Municipal Acts and Policies as well as beneficial management practices that protect the species, its prey, and their habitats. (Environment Canada 2015).	By 2020. Annual closures during nesting season (May-September).
Forest					
Foothill Sedge	5	<u>Habitat Conservation</u> : Control woody vegetation posing a threat to Foothill Sedge and its critical habitat on Sidney Island.	Open canopy habitat is maintained around Foothill Sedge individuals on Sidney Island.	Invasive alien plant species and changes in ecological Dynamics (Parks Canada Agency 2013).	Commencing in 2016 and ongoing.

Species	Measure number	Measure	Desired Outcome	Threat or recovery measure addressed ⁵	Timeline
Slender Popcornflower	6	<u>Visitor awareness and compliance:</u> Manage visitor impacts at Mt. Warburton Pike, Saturna Island through interpretive information and trail alignment.	One or more interpretive signs installed within 5 years and trail design incorporates species at risk protection.	Habitat Conversion and Public education (Parks Canada Agency 2014).	Beginning in 2016.
All Ecosystems					
All	7	<u>Visitor awareness and compliance:</u> Develop and implement media strategy.	At least one media story highlighting species at risk in GINPR annually.	Public awareness of and support for participation in recovery.	Ongoing
All	8	Develop and implement an online and new media strategy.	Information about Parks Canada and Species at risk is available to Canadians online, through social media platforms and via new media.	Public awareness of and support for participation in recovery.	Ongoing
All	9	<u>Visitor awareness and compliance:</u> Work with partners to promote the protection of key species and ecosystems.	Information about Parks Canada and Species at risk is available to Canadians at partner locations. Partners contribute to GINPR species at risk	Public awareness of and support for participation in recovery.	Ongoing

Species	Measure number	Measure	Desired Outcome	Threat or recovery measure addressed ⁵	Timeline
			goals.		
All	10	<u>Visitor awareness and compliance:</u> Incorporate species at risk monitoring and recovery into visitor opportunities.	Foster connection to place by incorporating species at risk content into visitor experience opportunities.	Public awareness of and support for participation in recovery.	Ongoing

Appendix C: Other recovery measures that will be encouraged through partnerships or when additional resources become available

Species	Measure number	Measure	Desired Outcome	Threat or recovery measure addressed
Slender Popcornflower.	1	<u>Population Recovery</u> : Survey the Mt. Norman location (population and habitat).	Determine whether Slender Popcornflower is present on Mt. Norman and if not determine if reintroduction is feasible.	Population restoration (Parks Canada Agency 2014).
Multiple species of translocation interest (e.g., Golden Paintbrush and Costal Scouler's Catchfly).	2	<u>Population Recovery</u> : Conduct experimental species introductions in GINPR to fill knowledge gaps.	(1) Successful propagation methods developed, (2) outplanted individuals mature sufficiently to potentially produce F1 generations, and (3) long-term contribution to population and distribution objectives for SARA-listed plant species at risk.	Population restoration (Parks Canada Agency 2006a, b, and c).
Western Painted Turtle, Georgia Basin Bog Spider, Little Brown Myotis, Banded Cord-moss and others.	3	Work with partners to fill knowledge gaps for species at risk in GINPR.	GINPR provides opportunities for organizations to achieve research goals and a system is in place to identify and fill species at risk knowledge gaps to assess threats.	Lack of data to determine whether action is required within GINPR.
All	4	<u>Visitor awareness and compliance</u> : Provide species at risk information throughout park reserve.	Park visitors learn about species at risk through a diverse suite of non-personal media (e.g., interpretive panels, website content, social media platforms, and visitor guide).	Public awareness of and support for participation in recovery.

