



2023

IMPLEMENTATION REPORT:

MULTI-SPECIES ACTION PLAN

for Gulf Islands National Park
Reserve of Canada
(2018-2023)



Parks
Canada

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Canada

Canada

Recommended Citation

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For copies of the report, or for additional information on species at risk, including the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) Status Reports, residence descriptions, recovery strategies, action plans and other related recovery documents, please visit the Species at Risk (SAR) Public Registry¹.

Photo credits:

Cover illustration, clockwise from top left: Visitor taking in the view from Mount Warburton Pike, Saturna Island, Gulf Islands National Park Reserve (GINPR), Parks Canada Agency (PCA); Silky Beach Pea, PCA; Slender Popcornflower, PCA. **This page**: Coastal sand ecosystem, Sidney Spit, GINPR, PCA. **Page i**: Aerial view of Sidney Island, GINPR, PCA. **Page ii**: Mount Warburton Pike, Saturna Island, GINPR, PCA. **Page iii**: Edward's Beach Moth, PCA. **Page 1**, left to right: Yellow Sand-verbena, PCA; Common Nighthawk, PCA; Silky Beach Pea, PCA; Foothill Sedge, PCA; American Glehnia, PCA; Common Nighthawk, PCA; American Glehnia, PCA; Silky Beach Pea, PCA; Coastal Scouler's Catchfly, PCA; Slender Popcornflower, PCA. **Page 10**, top to bottom: Coastal sand ecosystem on Sidney Spit, GINPR, PCA; Coastal sand ecosystem habitat restoration tools, Sidney Spit, GINPR, PCA. **Page 17**, left to right: Parks Canada staff talking to a visitor, Sidney Island, GINPR, PCA; WSÁNEĆ Knowledge Keeper shares stories with youth during a land-based learning day on Sidney Island, GINPR, PCA. **Page 18**: Coastal sand ecosystem, Sidney Spit, GINPR, PCA. **Page 19**: Aerial view of Sidney Island, GINPR, PCA. **Page 20**, both illustrations: Volunteers removing European Beachgrass on Sidney Spit, GINPR, PCA.

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¹ <http://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html>

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), action plans outline measures that will be taken to implement recovery strategies for SARA-listed Extirpated, Endangered and Threatened species. Parks Canada's multi-species action plans address a suite of species of conservation concern within one or more Parks Canada managed areas, including species that require an action plan under SARA.

The Minister responsible for the Parks Canada Agency (the Minister of the Environment and Climate Change) is the competent minister under SARA for species found in Gulf Islands National Park Reserve of Canada, and in 2018 published the Multi-species Action Plan for Gulf Islands National Park Reserve of Canada.

Under section 55 of SARA, the competent minister must monitor the implementation of an action plan and the progress towards meeting its objectives and assess and report on its implementation and its ecological and socio-economic impacts five years after the action plan comes into effect. A copy of the report must be included in the Species at Risk Public Registry. The Minister responsible for the Parks Canada Agency has prepared this Implementation Report: Multi-species Action Plan for Gulf Islands National Park Reserve of Canada (2018-2023).

The achievement of population and distribution objectives identified within the recovery strategy or management plan for a species may require a long timeframe. In these cases, a five-year reporting window may not be sufficient to show demonstrable progress towards meeting site-based population and distribution objectives identified for that species within a Parks Canada site-based action plan. Parks Canada monitors, evaluates, and, as necessary, adapts measures taken to achieve species survival or recovery, and will report regularly on progress towards meeting site-based population and distribution objectives.

² <http://www.canada.ca/en/environment-climate-change/services/species-risk-act-accord-funding/protection-federal-provincial-territorial-accord.html>

Acknowledgments

Parks Canada would like to acknowledge those who have contributed to the implementation of the Multi-species Action Plan for Gulf Islands National Park Reserve of Canada (GINPR).

GINPR is an Indigenous cultural landscape that has shaped and has been shaped by First Nations peoples for millennia. GINPR occupies and administers lands and waters that are within the territories of Indigenous Nations including the WSÁNEĆ Nation (Tsartlip First Nation, Pauquachin First Nation, Tsawout First Nation, Tseycum First Nation, Malahat First Nation), the Quw'utsun Nation (Cowichan Tribes, Halalt First Nation, Lyackson First Nation, Penelakut Tribe, and Stz'uminus First Nation), the Snuneymuxw First Nation, the Ts'uubaa-asatx First Nation, the Songhees First Nation, the Tsawwassen First Nation, and the Semiahmoo First Nation. The lands and waters around GINPR are ecologically, culturally, and spiritually important for these First Nations communities. Acknowledging the impact of colonialism on First Nations peoples, including impacts to their connection with the lands and waters within their territory, is a critical part of healing and advancing reconciliation. We are thankful to the WSÁNEĆ Environment Committee (a sub-committee of the WSÁNEĆ Leadership Council), PEPÁKEN HÁUTW, the Pauquachin Environmental Stewards, and the Hul'q'umi'num' Species at Risk or of Interest Working Group, for sharing their knowledge of the land and water through their involvement in the Growing Together Conservation and Restoration project (Growing Together), which contributed substantially towards advancing the goals of the Multi-species Action Plan for Gulf Islands National Park Reserve of Canada.

There are several key partners who have contributed to the implementation of the multi-species action plan and our improved understanding of species at risk at the site. Thanks are extended to the Mayne, Pender, Salt Spring, and Galiano Island Conservancies; Islands Trust Conservancy; Saturna Island Marine Research and Education Society; the Coastal Douglas-fir Conservation Partnership; the Cascadia Prairie Oak Partnership; the Capital Regional Invasive Species Partnership; Habitat Acquisition Trust; Raincoast Conservation Foundation; the Canadian Wildlife Federation; the Capital Regional District; Nature Conservancy of Canada; BC Ferries; and the many academic institutions and volunteers that have made much of this possible. We are also grateful to our colleagues at Fort Rodd Hill and Fisgard Lighthouse National Historic Sites of Canada and Pacific Rim National Park Reserve for their support and collaboration.

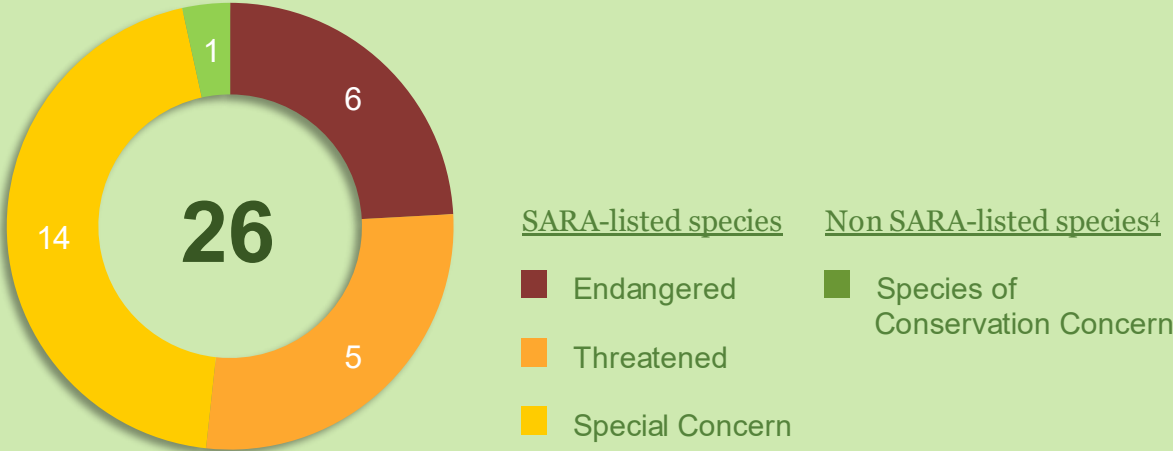
HÍSWKE, Huy ch q'a, Thank you, Merci

EXECUTIVE SUMMARY

This document reports on implementation of the Multi-species Action Plan for Gulf Islands National Park Reserve (GINPR) of Canada between 2018 and 2023. It reports on the implementation of measures identified in the plan, assesses progress towards meeting site-based population and distribution objectives, and evaluates socio-economic impacts.

Species Addressed³

The action plan addressed 25 SARA-listed species and one species of conservation concern which has since been SARA-listed. Measures and site-based population and distribution objectives identified within the action plan were focused on nine species, for which management actions within GINPR could have a substantive impact on species survival or recovery: Barn Swallow, Common Nighthawk, Contorted-pod Evening-primrose, Coastal Scouler’s Catchfly, Edwards’ Beach Moth, Foothill Sedge, Golden Paintbrush, Silky Beach Pea, and Slender Popcornflower.

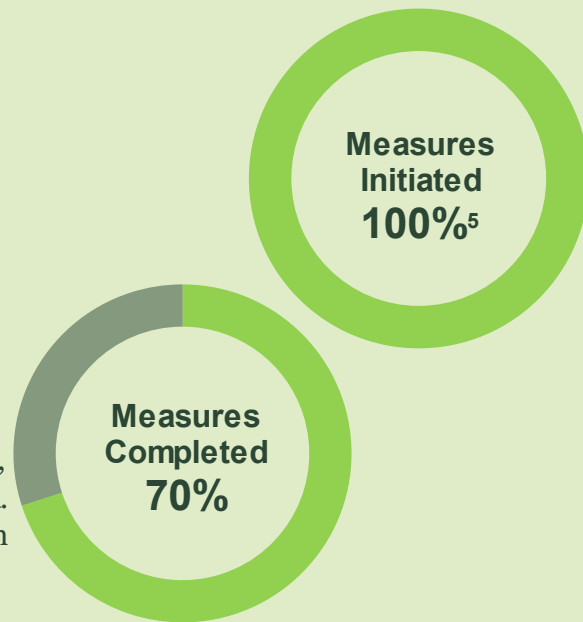


³ The SARA-listing classifications for the species in this report may differ from the Multi-species Action Plan due to changes made to Schedule 1 of the *Species at Risk Act* since the action plan was published.

⁴ Including non SARA-listed species of conservation concern (COSEWIC assessed, provincially listed, culturally significant species) in addition to SARA-listed species provides the Parks Canada Agency with a comprehensive plan for species conservation and recovery at the site.

Implementation of the Action Plan

10 measures (recovery actions) were identified in the multi-species action plan. Implementation of the action plan is assessed by determining progress towards completing each measure and is outlined in Section 2 of this report. During the five-year period, all 10 measures were initiated⁵ and 7 were completed. An additional 5 measures identified in the action plan were implemented because resources and/or partnerships became available to support the work.



Ecological Impacts

9 site-based, population and distribution objectives (PDOs) were developed in the action plan. Ecological impacts are assessed by measuring progress towards achieving each of the site-based population and distribution objectives and are outlined in section 4. Progress was made on all objectives⁶ including six that were fully achieved.

Socio-Economic Impacts

Direct costs of implementing this action plan were borne by Parks Canada. Indirect costs were minimal, mainly through visitor restrictions to certain areas of the park to protect the coastal sand ecosystem. Benefits included positive impacts on park ecological integrity, greater awareness of species and enhanced opportunities for engagement of First Nations partners, visitors, and local communities.



⁵ Includes measures that are 100% completed.

⁶ Includes PDOs that are fully achieved.

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1. CONTEXT

This document reports on implementation of the [Multi-species Action Plan for GINPR](#)⁷ between 2018 and 2023, assesses progress towards meeting its population and distribution objectives, and evaluates its socio-economic impacts. It addresses 26 species, including 11 SARA-listed Extirpated, Endangered, and Threatened species (for which an action plan is required) as well as 14 SARA-listed Special Concern species and 1 species of conservation concern⁸.

Site-based population and distribution objectives were developed for 9 species for which implementation measures within Gulf Islands National Park Reserve could have a substantive impact on recovery: Barn Swallow, Common Nighthawk, Contorted-pod Evening-primrose, Coastal Scouler's Catchfly, Edwards' Beach Moth, Foothill Sedge, Golden Paintbrush, Silky Beach Pea, and Slender Popcornflower.

2. IMPLEMENTATION OF THE ACTION PLAN

Implementation of the Multi-species Action Plan for GINPR is assessed by measuring progress towards completing the recovery measures identified in the action plan (Table 1). Refer to the original action plan⁷ for a description of each measure, the desired outcomes, and the threats that each measure addresses.

In 2020 there were several restrictions put in place at GINPR to combat the spread of COVID-19, including temporary restrictions of park management activities. This impacted the ability of the park to complete the implementation of some parts of the action plan during that year. This included some outreach and education activities, monitoring surveys, and restoration activities.

⁷ Parks Canada Agency. 2018. Multi-species Action Plan for Gulf Islands National Park Reserve of Canada. Species at Risk Act Action Plan Series. Parks Canada Agency, Ottawa. v + 27 pp.

⁸ The status of these species may have changed over the reporting period. For example, Silky Beach Pea was included in this action plan due to its COSEWIC listing at the time of writing and is now SARA-listed threatened.

Table 1. Progress towards completing recovery measures committed to by Gulf Islands National Park Reserve (* indicates an ongoing measure that may continue into a future multi-species action plan).

Species and measure	Desired outcome	Progress towards outcome	Progress (% complete)
<p>1) Contorted-pod Evening-primrose, Silky Beach Pea, Edwards' Beach Moth, and Common Nighthawk: (Habitat conservation) 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.</p>	<p>Within 10 years the percent cover of priority invasive plant species <10% within habitat management areas. Note: The desired outcome for this measure was modified to: Increase the percent cover of bare sand at the Sidney Spit "Teardrop" site on Sidney Island.</p>	<p>The amount of bare sand at the Sidney Spit "Teardrop" site on Sidney Island increased from 1.1% in 2016 to 17.3% in 2021. The increase in the percent cover of bare sand is a result of substantial work to remove invasive plants from the site. Between April 2018 and March 2023, 257m³ of invasive species, predominantly European Beach Grass and Scotch Broom, were removed from the "Teardrop" site.</p>	<p>100%</p>
<p>2) Contorted-pod Evening-primrose: (Population recovery) Develop and implement a population augmentation</p>	<p>Population size and extent is stable or increasing.</p>	<p>During the reporting period, several established patches were augmented, and several new patches were established with seed. In 2016, prior to the beginning of augmentation, 2572 plants were counted in 14 patches. In 2022, 31902 plants were counted in 30 patches, and 24472 of those plants were potentially derived from augmentation. See</p>	<p>100%*</p>

Species and measure	Desired outcome	Progress towards outcome	Progress (% complete)
plan if needed for the Sidney Spit population.		the Contorted-pod Evening-primrose Population and Distribution Objectives in Table 3 for more information.	
<p>3) Contorted-pod Evening-primrose: (Population recovery)</p> <p>Experimental trial to investigate the feasibility of expanding the distribution of this species and create a second subpopulation at Sidney Island.</p>	An experimental translocation is underway by 2021.	<p>Seeds for Contorted-pod Evening-primrose were sown in 2021 and 2022 to establish an experimental subpopulation at Sidney Island adjacent to the Day Use Area.</p> <p>During a preliminary site visit in 2023, germination of several plants was observed. See the Contorted-pod Evening-primrose Population and Distribution Objectives in Table 3.</p>	100%*
<p>4) Common Nighthawk: (Visitor awareness and compliance)</p> <p>Provide visitors with information regarding species protection.</p>	Interpretive signage and fencing have been installed, trails have been realigned and nest areas are closed and interpreted each year.	Interpretive signage and fencing installed at Sidney Spit “Teardrop” and Day Use Area sites. An interpretive sign for Hook Spit was developed and installed. All three sites have permanent closures in place. In 2021, the trail was realigned at the Day Use Area to protect coastal sand vegetation from trampling.	100%
<p>5) Foothill Sedge: (Habitat conservation)</p> <p>Control woody vegetation posing a threat to Foothill Sedge and its critical habitat on Sidney Island.</p>	Open canopy habitat is maintained around Foothill Sedge individuals on Sidney Island.	Through removal efforts, the percent cover of woody vegetation within a 10m circular buffer surrounding Foothill Sedge individuals was reduced from 15.2% in 2016 to 1.2% by 2019. The site has since been revisited and was resurveyed in 2021 to ensure that substantial regrowth has not occurred.	100%

Species and measure	Desired outcome	Progress towards outcome	Progress (% complete)
<p>6) Slender Popcornflower: (Visitor awareness and compliance) Manage visitor impacts at Mt. Warburton Pike, Saturna Island through interpretive information and trail alignment.</p>	<p>One or more interpretive signs installed within 5 years and trail design incorporates species at risk protection.</p>	<p>An interpretive sign was installed at Mt. Warburton Pike in November 2022. The design for trail realignment has been drafted but has not yet been implemented. A trail realignment may not be practical for this location as it is not an official trail maintained by the park reserve, and the logistical capacity to implement the realignment is limited.</p>	<p>75%</p>
<p>7) ALL: (Visitor awareness and compliance) Develop and implement media strategy.</p>	<p>At least one media story highlighting species at risk in GINPR annually.</p>	<p>Two media articles highlighting species at risk in GINPR were published between 2018 and 2023.</p>	<p>40%</p>
<p>8) ALL: (Visitor awareness and compliance) Develop and implement an online and new media strategy.</p>	<p>Information about Parks Canada and species at risk is available to Canadians online, through social media platforms and via new media.</p>	<p>New web pages were developed and published for priority species at risk in 2020. New webpages can be found at: https://parks.canada.ca/pn-np/bc/gulf/nature/especies-species Many social media posts with information on coastal sand ecosystem species at risk were published through the Growing Together project. https://www.facebook.com/GulfIslandsNPR/</p>	<p>100%</p>

Species and measure	Desired outcome	Progress towards outcome	Progress (% complete)
<p>9) ALL: (Visitor awareness and compliance) Work with partners to promote the protection of key species and ecosystems.</p>	<p>Information about Parks Canada and species at risk is available to Canadians at partner locations. Partners contribute to GINPR species at risk goals.</p>	<p>Collaborated on coastal sand ecosystem restoration initiatives through the Growing Together project with multiple other organizations including Nature Conservancy of Canada, Capital Regional District and Tsawout First Nation.</p> <p>Parks Canada collaborated with BC Ferries through the Coastal Naturalists program to provide interpretive programming on ecosystems and species at risk to passengers aboard busy ferry routes. Species at risk information was further available to the public at the Royal BC Museum, the Shaw Center for the Salish Sea, and Vancouver Science World.</p> <p>In 2021 the Southern Resident Killer Whale project was established, which initiated collaboration with the Department of Fisheries and Oceans and Transport Canada to engage the public in Southern Resident Killer Whale recovery.</p>	<p>100%</p>
<p>10) ALL: (Visitor awareness and compliance) Incorporate species at risk monitoring and recovery into visitor opportunities.</p>	<p>Foster connection to place by incorporating species at risk content into visitor experience opportunities.</p>	<p>Species at risk content was incorporated into visitor experience opportunities in 4/5 years. In-person visitor experience opportunities were not offered in 2020 due to COVID-19 restrictions, but non-personal media (interpretive panels) remained available.</p> <p>A volunteer program initiated by the Ecosystems on the Edge project and</p>	<p>80%</p>

Species and measure	Desired outcome	Progress towards outcome	Progress (% complete)
		continued by the Growing Together project provided Canadians with an opportunity to learn about and contribute to coastal sand ecosystem restoration and species at risk recovery on Sidney Island in GINPR from 2016-2023.	

Additional measures were identified in the action plan that would be beneficial to complete should resources become available. Table 2 describes the actions that GINPR was able to initiate between 2018 and 2023. Measures from the action plan that were not initiated will be carried forward for consideration in an amended action plan.

Table 2. Progress towards completing additional recovery measures implemented because partnerships and/or resources became available (progress is influenced by the amount of funding / support received); * indicates an ongoing measure that may continue into a future action plan.

Species and measure	Desired outcome	Progress towards outcome	Progress (% complete)
11) Slender Popcornflower Population recovery: 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.	Slender Popcornflower was not detected on Mt. Norman. Habitat restoration and reintroduction are not considered feasible based on current site conditions. Previously open habitat is now forested.	100%

Species and measure	Desired outcome	Progress towards outcome	Progress (% complete)
<p>12) Multiple species of translocation interest (e.g., Golden Paintbrush and Coastal Scouler's Catchfly).</p> <p>Population recovery: Conduct experimental species introductions in GINPR to fill knowledge gaps.</p>	<p>1) Successful propagation methods developed</p> <p>2) Outplanted individuals mature sufficiently to potentially produce F1 generations (first-generation offspring)</p> <p>3) Long-term contribution to population and distribution objectives for SARA-listed plant species at risk.</p>	<p>1) Successful propagation methods were developed for Golden Paintbrush and Coastal Scouler's Catchfly in the Conservation Nursery at Fort Rodd Hill and Fisgard Lighthouse National Historic Sites.</p> <p>2) Seedlings and seed of both species were planted in prepared habitat on Mini D'Arcy in GINPR. Some matured and flowered but failed to produce F1 generations.</p> <p>3) No contribution to long-term population and distribution objectives for Golden Paintbrush and Coastal Scouler's Catchfly was achieved as self-sustaining populations were not established. Habitat on Mini D'Arcy is deemed unsuitable for the long-term maintenance of this species.</p>	<p>33%</p>
<p>13) Western Painted Turtle, Georgia Basin Bog Spider, Little Brown Myotis, Banded Cord-moss, and others.</p> <p>Work with partners to fill knowledge gaps for species at risk in GINPR.</p>	<p>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.</p>	<p>Collaborated with many organizations to fill knowledge gaps for species at risk (e.g., Victoria Natural History Society - annual Christmas Bird Count).</p> <p>An iNaturalist.ca project for GINPR was promoted to citizen scientists and helped capture incidental observations of species at risk as well species of cultural importance.</p> <p>Bat surveys conducted by researchers at University of Victoria for Little Brown Myotis were supported by GINPR to improve our</p>	<p>50%*</p>

Species and measure	Desired outcome	Progress towards outcome	Progress (% complete)
		<p>understanding of Little Brown Myotis presence.</p> <p>In consultation with local experts, trapping and DNA testing were used to investigate the reported presence of Western Painted Turtle in Greenburn Lake.</p> <p>Researchers and citizen scientists were directed to watch for species at risk while conducting research in the park reserve.</p>	
<p>14) ALL</p> <p>Visitor awareness and compliance: Provide species at risk information throughout park reserve.</p>	<p>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).</p>	<p>The Southern Resident Killer Whale (SRKW) interpretive team was established to share messages and products about SRKW recovery. This has included website content, videos, an SRKW Explorers Booklet, interpretive panels at land-based whale-watching locations (aka Whale Trail), signs, and interpretation and outreach programs.</p> <p>Several opportunities were initiated and implemented to connect park visitors to species at risk, including progress summarized in Recovery Measures 4, 6, 8, 9, and 10.</p>	<p>100%</p>
<p>15) Rare species of cultural importance to First Nation partners</p> <p>Indigenous knowledge</p>	<p>1. Effective engagement of First Nation partners in rare species conservation leading to improved awareness of the abundance and distribution of rare</p>	<p>1) The WSÁNEĆ Environment Committee and the Species at Risk or of Interest Working Group (Hul'q'umi'num' Lands and Resources Society) were established to discuss the restoration of rare species and species of</p>	<p>100%</p>

Species and measure	Desired outcome	Progress towards outcome	Progress (% complete)
	<p>species of cultural importance.</p> <p>2. Enhancement of select populations of rare plants of cultural importance.</p> <p>3. Greater appreciation by Parks Canada staff, visitors, the public and First Nation community members (particularly youth) of the cultural traditions, uses, and importance of some of the plants and animals within Coast Salish territory.</p>	<p>cultural importance in Garry Oak and coastal sand ecosystems in GINPR.</p> <p>2) KEXMIN (Consumption Plant), a plant of great cultural importance to local First Nations, was planted on Sidney Spit to enhance local availability. This planting was undertaken with members of the WSÁNEĆ Environment Committee, Pauquachin Environmental Stewards, and youth from the LÁU, WELNEW Tribal School.</p> <p>3) McDonald Campground was renamed as SMONEĆTEN Campground in collaboration with the WSÁNEĆ Leadership Council. A new interpretive kiosk was created that shares cultural traditions, uses, and the importance of some of the plants and animals within Coast Salish territory. This is complemented by new plant identification signs throughout the campground. Visitor experience opportunities (including <i>Meet our Plant Relatives</i> and <i>Coast Salish Campfire</i>) shared WSÁNEĆ language, traditions and connections to plants and animals with visitors. A WSÁNEĆ artist created two original icons to represent the species at risk and species of cultural importance found within GINPR that have been shared broadly for appreciation and interpretation.</p>	

3. ACTION PLAN HIGHLIGHT: Habitat Restoration of Coastal Sand Ecosystems

GINPR protects a significant example of coastal sand ecosystems in the Georgia Basin. A critical feature of these ecosystems is that they must be able to shift and move with the winds, changing tides, and other natural weather conditions. The encroachment and substrate stabilization by invasive alien plants, including Scotch Broom and European Beach Grass, threaten these natural processes on Sidney Island. This threatens the ecosystem that several species at risk rely on, including Common Nighthawk, Contorted-pod Evening-primrose, Silky Beach Pea, and Edwards' Beach Moth.



The Growing Together Conservation and Restoration (CoRe) project focused significant effort on the restoration of this dynamic ecosystem to support habitat for species at risk. A volunteer program established under the Ecosystems on Edge CoRe project (2016-2018) continued under Growing Together until 2023, providing clubs, schools, universities, and community groups with an opportunity to learn about and contribute to rare ecosystem restoration and species at risk. Between 2018 and 2023, 257 cubic meters of invasive species, primarily European Beach Grass and Scotch Broom, were removed from the Sidney Spit “Teardrop” restoration area. Many different partners, volunteer groups, and individuals contributed 885 hours of volunteer work on the site.

4. ECOLOGICAL IMPACTS

Ecological impacts of the action plan are assessed by measuring progress towards meeting the site-based population and distribution objectives described in the action plan (Table 3). See the original action plan for national Population and Distribution Objectives and General Information and Broad Park Approach for each species.

Table 3. Progress towards achieving site-based population and distribution objectives for species at risk in Gulf Islands National Park Reserve of Canada

Species	Site-based population & distribution objectives	Population monitoring	Progress towards site-based population and distribution objectives	Progress (% achieved)
Contorted-pod Evening-primrose	<p>Maintain the Contorted-pod Evening-primrose population size and extent on Sidney Spit at current or higher levels.</p> <p>Explore establishment of a new subpopulation of Contorted-pod Evening-primrose on Sidney Island.</p>	Annual population survey and mapping as part of existing monitoring framework at GINPR.	<p>The five-year average of the Contorted-pod Evening-primrose population as of 2022 is 33843 plants, a substantial increase over the 2016 average of 1551 plants.</p> <p>The population extent of Contorted-pod Evening-primrose as of 2022 includes 30 polygon locations on Sidney spit, an increase over the 2017 extent of 18 polygons.</p> <p>Progress on the second component of the PDO (establishment of a new</p>	100%

Species	Site-based population & distribution objectives	Population monitoring	Progress towards site-based population and distribution objectives	Progress (% achieved)
			subpopulation on Sidney Island) is assessed in Table 1 above (Recovery Measure 2) and therefore was not used in the PDO progress calculation here.	
Edwards' Beach Moth	Edwards' Beach Moth continues to be present on Sidney Spit.	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.	Edwards' Beach Moth was detected in 2019. The next survey conducted under the existing monitoring framework will be in 2024.	100%
Foothill Sedge	A stable or increasing Foothill Sedge population size and extent on Sidney Island.	Population census at least once every three years as part of existing monitoring framework at GINPR.	In 2017, 49 Foothill Sedge patches were counted. 119 and 127 patches were counted in the 2019 and 2021 surveys respectively. The mapped locations also demonstrate a larger extent at the site. These increases are suspected to be in part a result of improved survey methods.	100%
Slender Popcornflower	A stable or increasing Slender Popcornflower population size and extent on Saturna Island, GINPR.	Annual population census and mapping of all subpopulations in GINPR as part of existing	The population within GINPR boundaries in 2022 is 3966 in two subpopulations, an increase over	100%

Species	Site-based population & distribution objectives	Population monitoring	Progress towards site-based population and distribution objectives	Progress (% achieved)
	<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>	<p>monitoring framework at GINPR.</p>	<p>the 2016 count of 21 individuals in one subpopulation.</p> <p>Augmentations of suitable habitat with seed beginning in 2017 supported this increase. These subpopulations are part of a larger population on private land adjacent to the park reserve that is regularly surveyed by staff.</p> <p>Progress on the second component of the PDO (feasibility of habitat on Mt. Norman) is assessed in Table 2 (Recovery Measure 11) and therefore was not used in the PDO progress calculation here.</p>	
<p>Coastal Scouler's Catchfly</p>	<p>Assess habitat suitability and learn population restoration techniques required to establish a new population in GINPR through experimental trials.</p>	<p>Annual site visits to monitor and inspect trials as part of existing monitoring framework at GINPR.</p>	<p>The Mini D'Arcy Islet trial population was surveyed throughout the reporting period. In 2022, the population was present but limited to two plants. There is potential that plants may continue to exist at the site, but the habitat is not considered</p>	<p>N/A</p>

Species	Site-based population & distribution objectives	Population monitoring	Progress towards site-based population and distribution objectives	Progress (% achieved)
			<p>suitable for a self-sustaining population.</p> <p>This should not have been a population and distribution objective. Progress on the first component of the PDO (Assess habitat suitability and learn population restoration techniques) is assessed in Table 2 above (Recovery Measure 12) and therefore was not used in the PDO progress calculation here. Since it was determined that habitat is not suitable for a self-sustaining population, the second part of the PDO was not possible to complete.</p>	
Golden Paintbrush	Assess habitat suitability and learn population restoration techniques required to establish a new population in GINPR through experimental trials.	Annual site visits to monitor and inspect trials as part of existing monitoring framework at GINPR.	The Mini D'Arcy Islet trial population was surveyed throughout the reporting period. In 2022, the population was present but limited to one plant. There is potential that plants may continue to exist at the site, but the habitat is not considered	N/A

Species	Site-based population & distribution objectives	Population monitoring	Progress towards site-based population and distribution objectives	Progress (% achieved)
			<p>suitable for a self-sustaining population.</p> <p>This should not have been a population and distribution objective. Progress on the first component of the PDO (Assess habitat suitability and learn population restoration techniques) is assessed in Table 2 above (Recovery Measure 12) and therefore was not used in the PDO progress calculation here. Since it was determined that habitat is not suitable for a self-sustaining population, the second part of the PDO was not possible to complete.</p>	
Silky Beach Pea	A stable or increasing Silky Beach Pea population and extent on Sidney Spit.	Population census and mapping at least once every 3 years as part of existing monitoring framework at GINPR.	The population of Silky Beach Pea saw large increases in extent and shoot density over the reporting period due to restoration efforts.	100%
Common Nighthawk	A stable or increasing number of nesting	Population survey once every 3 years as part of	Annual nest counts over the reporting period saw some fluctuations in nest count, with 2022 data being half of the	50%

Species	Site-based population & distribution objectives	Population monitoring	Progress towards site-based population and distribution objectives	Progress (% achieved)
	Common Nighthawks on Sidney Island, GINPR.	existing monitoring framework at GINPR.	objective set by a 5-year average from 2015 to 2019.	
Barn Swallow	A stable or increasing number of nesting Barn swallows on Sidney Island, GINPR.	Annual survey as part of existing monitoring framework at GINPR.	Annual surveys for nesting Barn Swallows on Sidney Island were completed each year of the reporting period. A baseline is still being established. Two nests were observed in 2022, which represents an increasing trend over the past 5 years.	100%



5. SOCIO-ECONOMIC IMPACTS

The *Species at Risk Act* requires the responsible federal minister to report on the socio-economic costs of the multi-species action plan and the benefits derived from its implementation. The multi-species action plan only applies to protected lands and waters under the authority of the Parks Canada Agency, which are often subject to fewer threats (e.g., industrial activities) compared to other areas as the lands are managed to preserve ecological and commemorative integrity. This section does not include socio-economic impacts of existing permitted activities that may be occurring in Parks Canada places as those have been addressed through other processes (e.g., impact assessments). This socio-economic assessment is narrow in scope, as it is focused on the measures implemented within the action plan, and primarily focuses on First Nations partners, leaseholders, licensees, residents, and visitors. The overall socio-economic impacts of the multi-species action plan for GINPR, described as costs and benefits, are outlined below.

Costs

The majority of costs to implement this action plan was 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 Appendices B (Recovery measures that will be conducted by GINPR) and C (Other recovery measures that will be encouraged through partnerships or when additional resources become available) of the action plan. No major socio-economic costs to



partners, stakeholders or Indigenous groups were reported as a result of this action plan.

Additional (non-monetary) resources and partnership were provided by several groups and organizations that supported progress towards recovery measures. WSÁNEĆ Peoples and Quw'utsun Peoples participating in WSÁNEĆ Environment Committee and the Hul'q'umi'num' Species at Risk or of Interest Working Group worked with Parks Canada to collaboratively develop and implement conservation actions, including habitat restoration, public outreach, and interpretations, and, where appropriate, shared Indigenous knowledge to guide the work. Volunteer program partners contributed significantly to rare ecosystem restoration, including (but not limited to) Canadian Conservation Corps, Project Serve, Volunteer Victoria, Parkland Secondary School, and student groups from the University of Victoria, the University of British Columbia and Vancouver Island University. Restoration network partners and regional restoration leaders contributed information and resource sharing for restoration of Garry Oak and coastal sand ecosystems, including (but not limited to) the Mayne, Pender, Salt Spring and Galiano Island Conservancies, Islands Trust Conservancy, Saturna Island Marine Research and Education Society; the Coastal Douglas-fir Conservation Partnership; the Cascadia Prairie Oak Partnership; the Capital Regional Invasive Species Partnership; Habitat Acquisition Trust; Raincoast Conservation Foundation; the Canadian Wildlife Federation; the Capital Regional District; and the Nature Conservancy of Canada.

Action plan measures were integrated into the operational management of GINPR, largely through Parks Canada's Conservation and Restoration (CoRe) Program. These costs to Parks Canada were covered by prioritization of existing funds and salary dollars and did not result in additional costs to society.

The action plan applies only to lands and waters in GINPR and did not bring any restrictions to land use outside the national park reserve. As such, this action plan placed no extraneous socio-economic costs on the public. However, some restrictions were placed on visitors to GINPR. To protect and recover species at risk in coastal sand ecosystems, and in particular Common Nighthawk, closure areas were clearly delineated with fencing and signage at the Sidney Spit "Teardrop", Sidney Island Day Use Area, and Hook Spit. Closures were supported through visitor engagement and education by Parks Canada staff. Park visitors were still able to enjoy areas adjacent to these closures, and interpretive signs to provide information on species at risk were installed.



Benefits

Measures presented in this action plan for GINPR contributed to meeting recovery objectives for Threatened and Endangered species and contributed to meeting management objectives for species of Special Concern.

The measures sought a balanced approach to reducing or eliminating threats to species at risk populations and habitats and included protection of individuals and their habitat (e.g., restrictions to human activities within areas occupied by the species, combined with ongoing research and monitoring), potential species re-establishment, and increasing public awareness and stewardship (e.g., signage, visitor programs, updated website pages, and social media posts about species at risk).

These measures had an overall positive impact on ecological integrity and contributed to efforts to increase visitor and public awareness. Seeding augmentation, experimental translocation, and invasive species removal have supported the growth of the Contorted-pod Evening-primrose population. Common Nighthawk breeding habitat and other species have been protected through trail realignments and fencing, and new signage explains habitat sensitivities to visitors for Slender Popcornflower.

These and other measures taken may have resulted in broader benefits to Canadians, such as positive impacts on biodiversity and the value individuals place on preserving biodiversity.

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 species 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 had positive benefits for park visitors and local residents. Many new products were developed and implemented to share information on species



at risk with visitors, including interpretive signs, interpretive programs, updated web content, and social media posts. Opportunities to share Indigenous knowledge arose through the renaming of the SMONEĆTEN campground and the development of interpretive programming sharing Coast Salish knowledge and traditions. Some activities in the action plan created opportunities for park visitors, local residents and First Nations to become involved in the recovery of species at risk. Volunteers contributed over 800 hours to restoration work on the Sidney Spit “Teardrop”. The establishment of the WSÁNEĆ Environment Committee and the Hul’q’umi’num’ Species at Risk or of Interest Working Group created an ongoing method for First Nations partner involvement in species at risk programming.

Summary

The recovery measures in the action plan had limited socio-economic impact and placed no restrictions on land outside the boundary of the national park reserve. Direct costs of implementing this action plan were borne by Parks Canada. Indirect costs were minimal and were limited to restrictions to visitor access, while benefits included positive impacts on park ecological integrity, greater awareness of species, and enhanced opportunities for engagement of visitors, local communities, and Indigenous groups.