

PROPOSED

Species at Risk Act
Action Plan Series

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



2017

2 **Recommended citation:**
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4 Parks Canada Agency. 2017. Multi-species Action Plan for Gulf Islands National Park
5 Reserve of Canada [Proposed]. *Species at Risk Act* Action Plan Series. Parks Canada
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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34 ISBN: ISBN to come

35 Catalogue no.: Catalogue no. to come
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¹ <http://www.registrelep-sararegistry.gc.ca>

40 **RECOMMENDATION AND APPROVAL STATEMENT**

41
42 *The Parks Canada Agency led the development of this federal action plan under the Species at*
43 *Risk Act. The relevant Field Unit Superintendent hereby approves this document indicating that*
44 *the relevant Species at Risk Act requirements related to action plan development have been*
45 *fulfilled in accordance with the Act.*
46
47
48

49 Recommended by:



51 Marcia Morash
52 *Superintendent, Gulf Islands National Park Reserve of Canada, Parks*
53 *Canada Agency*
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59 Approved by:



61 Brian Reader
62 *Acting Field Unit Superintendent, Coastal BC Field Unit, Parks Canada*
63 *Agency*
64

65 PREFACE

66 The federal, provincial, and territorial government signatories under [the Accord for the](#)
67 [Protection of Species at Risk](#) (1996)² agreed to establish complementary legislation and
68 programs that provide for effective protection of species at risk throughout Canada.
69 Under the *Species at Risk Act* (S.C. 2002, c.29) (SARA), the federal competent
70 ministers are responsible for the preparation of action plans for species listed as
71 Extirpated, Endangered, and Threatened for which recovery has been deemed feasible.
72 They are also required to report on progress five years after the publication of the final
73 document on the Species At Risk Public Registry.

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

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

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

97

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.

103 **Executive summary**

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

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

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

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

129

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155 **1. Context**

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

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

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

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

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

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

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

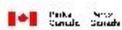
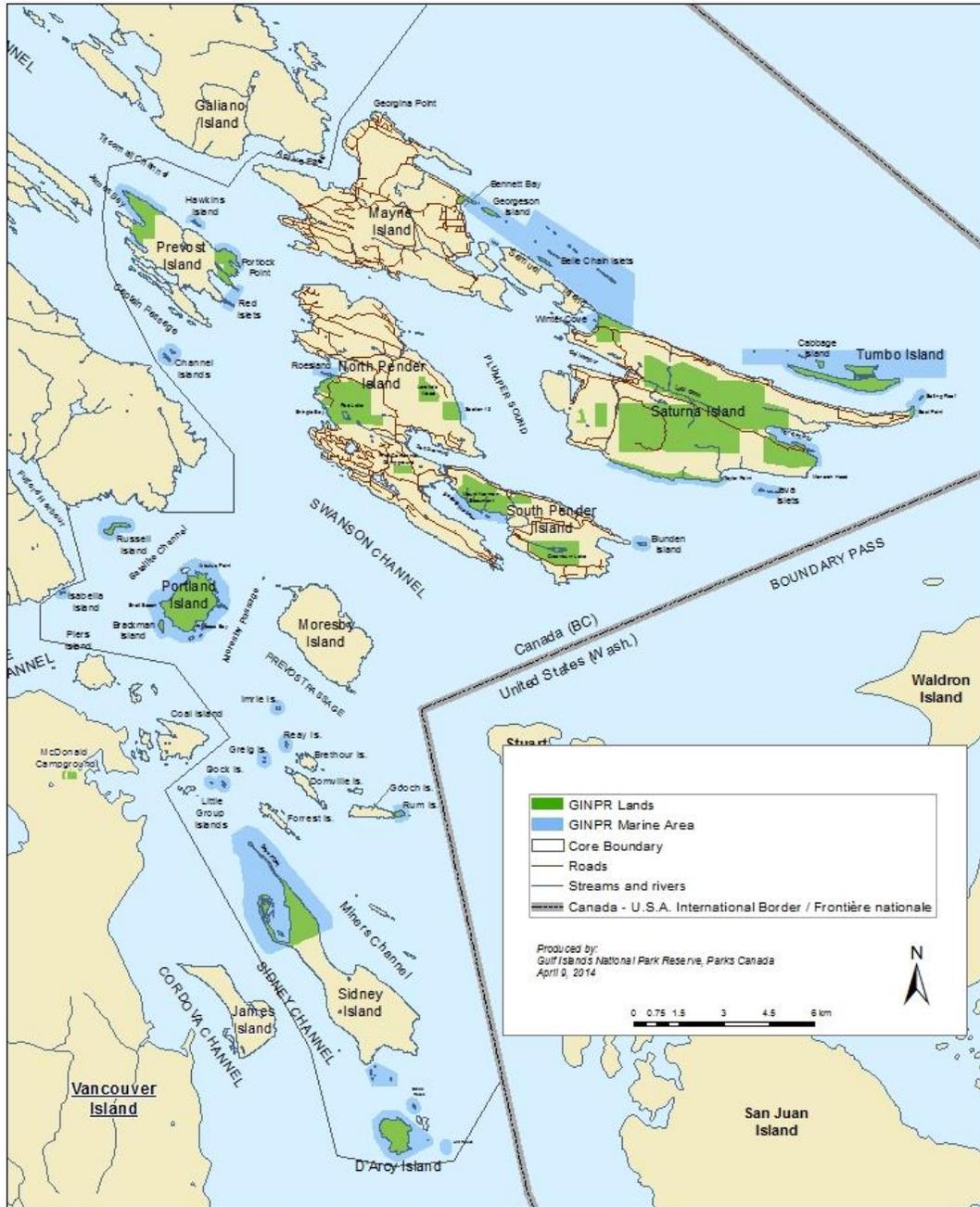
207 **1.1. Scope of the action plan**

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

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

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

Gulf Islands National Park Reserve



228

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

231 **Table 2.** Species included in the multi-species action for Gulf Islands National Park
 232 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

233 2. Site-based population and distribution objectives

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

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

252 **3. Conservation and recovery measures**

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

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

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

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

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

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

299 **4. Critical habitat**

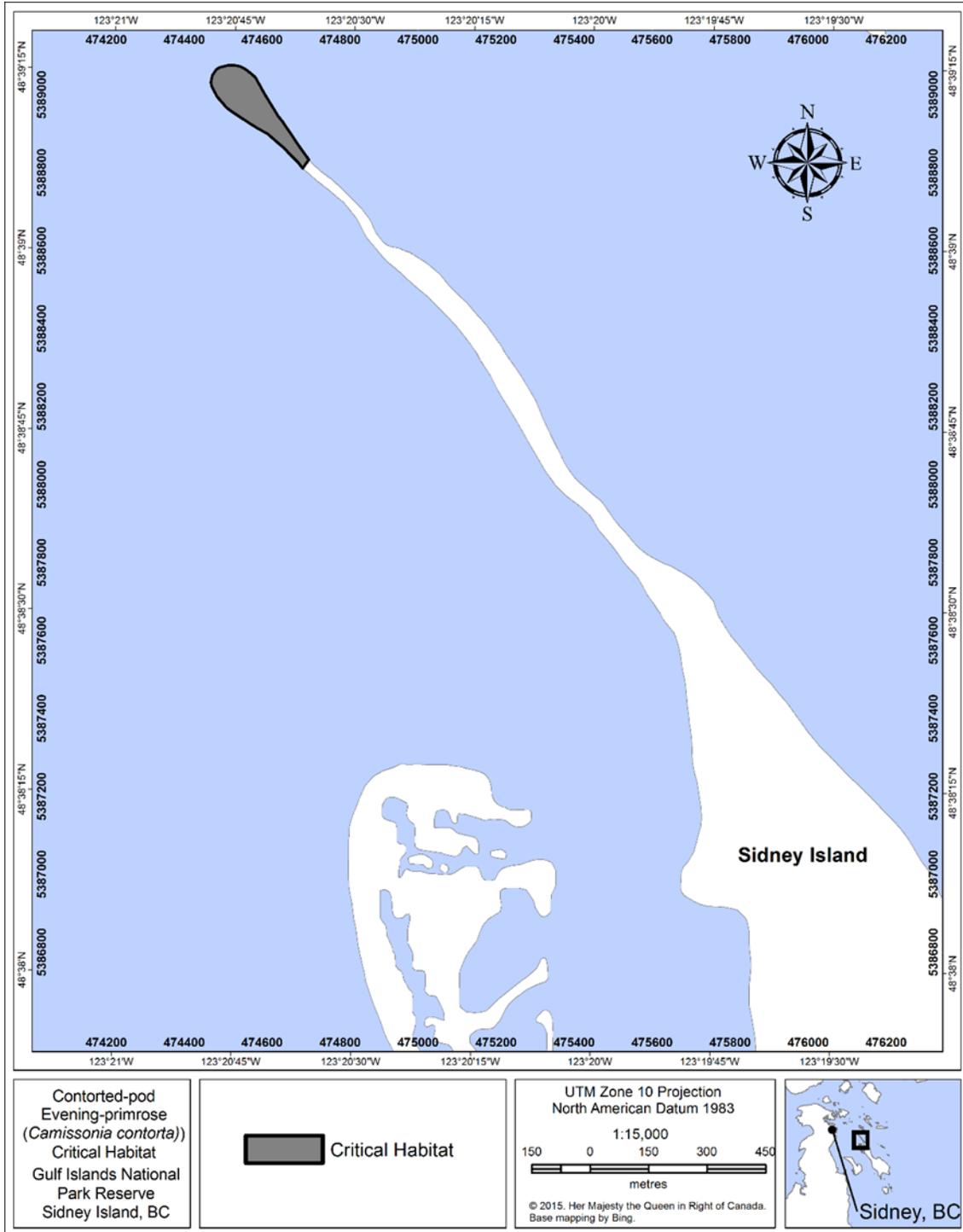
300 Critical habitat is “the habitat that is necessary for the survival or recovery of a listed
301 wildlife species and that is identified as the species’ critical habitat in the recovery
302 strategy or in an action plan for the species” (SARA s.2(1)). At the time of writing of this
303 document it was possible to identify additional critical habitat in the park reserve for
304 Contorted-pod Evening-primrose. Critical habitat has already been identified in the park
305 reserve in recovery strategies for Contorted-pod Evening-primrose, Foothill Sedge,
306 Slender Popcornflower, and Southern Resident Killer Whale and more will be identified
307 in the future when possible (Fisheries and Oceans Canada 2011; Parks Canada
308 Agency 2011 and 2013). Where critical habitat identification is not complete for species
309 covered in this action plan, it will be identified in upcoming or revised action plans or
310 revised recovery strategies; refer to the schedule of studies in relevant recovery
311 strategies and action plans for further details.

312 **4.1. Identification of critical habitat for Contorted-pod Evening-** 313 **primrose**

314 **4.1.1. Geographic location**

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

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



323

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

326



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

328 **4.2. Proposed measures to protect critical Habitat**

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

331 **5. Evaluation of socio-economic costs and benefits**

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

335 **5.1. Costs**

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

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

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

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

351 **5.2. Benefits**

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

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

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

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

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

390 **6. Measuring progress**

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

396 **7. Indigenous traditional knowledge and perspectives**

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

398 **8. References**

399 B.C. Ministry of Environment. 2016. Management plan for the Peregrine Falcon, pealei
 400 subspecies (*Falco peregrinus pealei*) in British Columbia. B.C. Ministry of Environment,
 401 Victoria, BC. 33 pp.

402 COSEWIC 2007. COSEWIC assessment and status report on the Common Nighthawk
 403 (*Chordeiles minor*) in Canada. Committee on the Status of Endangered Wildlife in
 404 Canada. Ottawa. vi +25 pp.

405 COSEWIC. 2009. COSEWIC assessment and status report on the Edwards' Beach Moth
 406 (*Anarta edwardsii*) in Canada. Committee on the Status of Endangered Wildlife in
 407 Canada. Ottawa. vi + 26 pp. (www.sararegistry.gc.ca/status/status_e.cfm).

408 COSEWIC. 2013. COSEWIC assessment and status report on the Silky Beach Pea
 409 *Lathyrus littoralis* in Canada. Committee on the Status of Endangered Wildlife in
 410 Canada. Ottawa. ix + 33 pp. (www.registrep-sararegistry.gc.ca/default_e.cfm).

411 Environment and Climate Canada. 2016. Recovery Strategy for the Common Nighthawk
 412 (*Chordeiles minor*) in Canada. *Species at Risk Act* Recovery Strategy Series.
 413 Environment Canada, Ottawa. vi + 48 pp.

- 414 Environment Canada. 2014. Recovery Strategy for the Marbled Murrelet (*Brachyramphus*
415 *marmoratus*) in Canada. *Species at Risk Act* Recovery Strategy Series. Environment
416 Canada, Ottawa. v + 49 pp.
- 417 Environment and Climate Change Canada. 2016. Recovery Strategy for the Edwards'
418 Beach Moth (*Anarta edwardsii*) in Canada [Proposed]. *Species at Risk Act* Recovery
419 Strategy Series. Environment and Climate Change Canada, Ottawa. 2 parts, 15 pp. +
420 23 pp
- 421 Environment Canada. 2016. Recovery Strategy for the Olive-sided Flycatcher (*Contopus*
422 *cooperi*) in Canada. *Species at Risk Act* Recovery Strategy Series. Environment
423 Canada, Ottawa. vii + 52 pp.
- 424 Environment Canada. 2015. Recovery Strategy for Little Brown Myotis (*Myotis lucifugus*),
425 Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) in
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427 Canada, Ottawa. ix + 110 pp.
- 428 Environment Canada. 2015. Management Plan for the Ancient Murrelet (*Synthliboramphus*
429 *antiquus*) in Canada [Proposed]. *Species at Risk Act* Management Plan Series.
430 Environment Canada, Ottawa. iii + 33 pp.
- 431 Environment and Climate Change Canada. 2016. Management Plan for the Band-tailed
432 Pigeon (*Patagioenas fasciata*) in Canada [Proposed]. *Species at Risk Act* Management
433 Plan Series. Environment and Climate Change Canada, Ottawa. iii + 14 pp.
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490 **Appendix A: Species information, objectives and monitoring plans for species at risk**
 491 **in Gulf Islands NPR.**

492

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)	<p>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.</p>	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)	<p>1 - Maintain the seven extant populations of Foothill Sedge. 2 - Prevent declines in the known distribution of Foothill Sedge populations in Canada.</p>	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>	<p>Assess habitat suitability and learn population restoration techniques required to establish a new population in GINPR through experimental trials.</p>	<p>Unknown (No known occurrences in GINPR prior to experimental translocation in 2012. Present since 2012.)</p>	<p>Annual site visits to monitor and inspect trials as part of existing monitoring framework at GINPR.</p>	<p>Cooperate with and support conservation and recovery initiatives developed by other agencies and partners that can be applied within the national park reserve.</p>
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>	<p>Assess habitat suitability and learn population restoration techniques required to establish a new population in GINPR through experimental trials.</p>	<p>Unknown (No known occurrence in GINPR prior to experimental translocation in 2009. Present since 2009.)</p>	<p>Annual site visits to monitor and inspect trials as part of existing monitoring framework at GINPR.</p>	<p>Cooperate with and support conservation and recovery initiatives developed by other agencies and partners that can be applied within the national park reserve.</p>

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.

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

496

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

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

500

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.

501

