

DRAFT Government Response Statement  
to the  
Recovery Strategy for the Red Knot *rufa* subspecies in Ontario

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1 **Red Knot *rufa* subspecies**

2 **Ontario Government Response Statement**

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3 **Protecting and Recovering Species at Risk in Ontario**

4 Species at risk recovery is a key part of protecting Ontario's biodiversity. The  
5 *Endangered Species Act, 2007* (ESA) is the Government of Ontario's legislative  
6 commitment to protecting and recovering species at risk and their habitats.

7 Under the ESA, the Government of Ontario must ensure that a recovery strategy is  
8 prepared for each species that is listed as endangered or threatened. A recovery  
9 strategy provides science-based advice to government on what is required to achieve  
10 recovery of a species.

11 Within nine months after a recovery strategy is prepared, the ESA requires the  
12 government to publish a statement summarizing the government's intended actions and  
13 priorities in response to the recovery strategy. The response statement is the  
14 government's policy response to the scientific advice provided in the recovery strategy.  
15 In addition to the strategy, the government response statement considered (where  
16 available) input from Indigenous communities and organizations, stakeholders, other  
17 jurisdictions, and members of the public. It reflects the best available local and scientific  
18 knowledge, including Traditional Ecological Knowledge where it has been shared by  
19 communities and Knowledge Holders, as appropriate and may be adapted if new  
20 information becomes available. In implementing the actions in the response statement,  
21 the ESA allows the government to determine what is feasible, taking into account social,  
22 cultural and economic factors.

23 The [Recovery Strategy for the Red Knot \*rufa\* subspecies \(\*Calidris canutus rufa\*\) in](#)  
24 [Ontario](#) was completed on December 7, 2018.

25 Red Knot is a medium-sized shorebird that undertakes lengthy migrations between  
26 South America and the Canadian Arctic. It has a long bill and legs, and a slender,  
27 streamlined body. During breeding, the face, neck, breast and undersides of the bird  
28 develop a chestnut red appearance.

29 **Protecting and Recovering Red Knot**

30 Red Knot *rufa* subspecies is listed as an endangered species under the ESA, which  
31 protects both the bird and its habitat. The ESA prohibits harm or harassment of the

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32 species and damage or destruction of its habitat without authorization. Such  
33 authorization would require that conditions established by the Ontario government be  
34 met.

35 Red Knot have a wide global distribution and can be found in North and South America  
36 as well as in Europe, Asia, Africa and Australia. The species is known for extraordinary  
37 long-distance migrations between its breeding areas in the middle and high arctic and  
38 southern wintering areas. There are six recognized subspecies of Red Knot across the  
39 globe, three of which are found in Canada; *rufa*, *islandica* and *roselaari*. All three  
40 subspecies are considered at risk in Canada, but only the *rufa* subspecies is found in  
41 Ontario and provincially listed as at risk. The *rufa* subspecies breeds entirely within  
42 Canada, and the entire global population was estimated to be about 42,000 individuals  
43 in 2012; indicating a 70 percent decline in abundance over the last three generations  
44 (15 years). Several shorebird species found in the Western Hemisphere (the western  
45 half of the globe) have experienced recent declines, but declines in the *rufa* subspecies  
46 of Red Knot have been particularly severe.

47 In Canada, the Red Knot *rufa* subspecies (hereafter *rufa*) is listed as at risk under  
48 Ontario, New Brunswick, Nova Scotia and Newfoundland and Labrador species at risk  
49 legislation. Federally, *rufa* is listed as endangered under the *Species at Risk Act* and  
50 also receives protection under the *Migratory Birds Convention Act*. The conservation  
51 status of Red Knot has also been recognized in other jurisdictions throughout the  
52 Western Hemisphere including under the Convention on Migratory Species and in the  
53 U.S, Brazil, Argentina, Uruguay and Chile.

54 The *rufa* subspecies does not breed in Ontario but passes through the province during  
55 annual migrations between its wintering grounds in South America and summer  
56 breeding areas in Arctic Canada. In Ontario, *rufa* is primarily found at stopover areas  
57 (sites where birds rest and feed during migration) along the Hudson and James Bay  
58 coasts. Given the length of its migration, the Red Knot is heavily reliant on stopover  
59 areas with abundant, easily digested food (e.g., crab eggs and invertebrates such as  
60 insects, thin-shelled snails and clams) to recover after long flights and achieve sufficient  
61 body mass to complete its migration. Red Knot stopover areas are generally located in  
62 coastal or estuarine (areas where freshwater and seawater mix) habitats that provide  
63 quality foraging and roosting habitat and are relatively free of human disturbance.  
64 Collaborative research between federal and Ontario provincial governments has  
65 demonstrated that a significant portion (perhaps most) of the global population of *rufa*  
66 use the stopover areas in Ontario's Far North before undertaking their southward  
67 migration. Concentrations of *rufa* are occasionally observed along the Lake Ontario

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68 shoreline; these concentrations are thought to result from birds temporarily ceasing  
69 migration due to harsh weather conditions.

70 During their northward spring migration, *rufa* rely heavily on eggs provided by spawning  
71 Horseshoe Crabs (*Limulus polyphemus*) at a stopover area at Delaware Bay in the  
72 United States. Although the threats impacting the species are not fully understood,  
73 overharvest of Horseshoe Crabs in Delaware Bay is thought to have been the primary  
74 cause of the decline. Horseshoe Crabs are currently harvested to provide bait for  
75 several important fisheries (e.g., eel, conch) as well as for human biomedical use, but  
76 were once heavily harvested for use in fertilizer and livestock feed. Overharvest resulted  
77 in declines in Horseshoe Crab numbers, reducing the availability of food for *rufa* and  
78 negatively impacting the birds' ability to survive migration. Horseshoe Crab harvest is  
79 now adaptively managed in Delaware Bay, and harvest restrictions appear to have  
80 resulted in crab population stability, although numbers have not rebounded to their  
81 previous levels. A stock assessment is currently being undertaken in the United States.

82 Within Ontario, the species may be threatened by pollutant spills, quarrying and mining,  
83 and wind power development. Coastal areas within Ontario (and most coastal areas  
84 within the global range of *rufa*) have the potential to be impacted by pollutant spills (e.g.,  
85 oil) from shipping incidents. Spills can negatively affect both *rufa* and their invertebrate  
86 food sources. Increases in the length of the ice-free season in the Arctic are expected to  
87 result in increased shipping activity, further increasing the risk of spills. Quarrying and  
88 mining activities near stopover areas in Ontario and Québec may also result in habitat  
89 loss or degradation. In addition, wind power development along migratory routes may  
90 result in mortality of birds as well as negative effects on bird behaviour and their habitat.

91 Outside of Ontario, *rufa* may be impacted by: recreational activities that disturb roosting  
92 or foraging birds (e.g., hiking, boating, off-road vehicle use); urban, commercial and  
93 industrial development; invasive plants, water management or mining activities that  
94 reduce habitat suitability; and, direct harvest of the birds in southern wintering areas.  
95 Climate change is also likely to impact *rufa*, particularly in Arctic breeding areas, but the  
96 nature of the impact is unknown.

97 Given the inter-jurisdictional nature of threats and the species' reliance on a small  
98 number of key stopover locations, it is recognized that the recovery of *rufa* will require  
99 collaboration and recovery efforts at a variety of scales. Maintaining important migratory  
100 stopover habitats within Ontario and supporting inter-jurisdictional efforts to protect and  
101 conserve shorebirds will be key to the global recovery of the species and will be the  
102 focus of Ontario's efforts given the scope of the province's jurisdiction.

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**Government's Recovery Goal**

The government's goal for the recovery of Red Knot *rufa* subspecies is to support the global recovery of the species by maintaining existing migratory stopover habitat in Ontario and supporting inter-jurisdictional recovery efforts.

**Actions**

Protecting and recovering species at risk is a shared responsibility. No single agency or organization has the knowledge, authority or financial resources to protect and recover all of Ontario's species at risk. Successful recovery requires inter-governmental cooperation and the involvement of many individuals, organizations and communities. In developing the government response statement, the government considered what actions are feasible for the government to lead directly and what actions are feasible for the government to support its conservation partners to undertake.

**Government-led Actions**

To help protect and recover *rufa*, the government will directly undertake the following actions:

- Continue to collaborate with partners and other jurisdictions to fill knowledge gaps and implement conservation actions for arctic shorebirds through initiatives such as the James Bay Shorebird Project, Burntpoint Creek Research Station shorebird ecology studies, the Arctic Shorebird Demographics Network and Interactions Working Group.
- Continue to implement the [Ministry of Environment and Climate Change Emergency Response Plan \(2017\)](#) as necessary to respond to environmental spills within Ontario.
- Educate other agencies and authorities involved in planning and environmental assessment processes on the protection requirements under the ESA.
- Encourage the submission of *rufa* data to the Ontario's central repository through the citizen science projects that they receive data from (i.e., [iNaturalist.ca](#), [eBird](#)) and directly through the [Natural Heritage Information Centre](#).
- Undertake communications and outreach to increase public awareness of species at risk in Ontario.

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- 133 • Continue to protect *rufa* and its habitat (i.e., migratory stopover areas) through  
134 the ESA.
- 135 • Support conservation, agency, municipal and industry partners, and Indigenous  
136 communities and organizations to undertake activities to protect and recover *rufa*.  
137 Support will be provided where appropriate through funding, agreements, permits  
138 (including conditions) and/or advisory services.
- 139 • Encourage collaboration, and establish and communicate annual priority actions  
140 for government support in order to reduce duplication of efforts.

141 **Government-supported Actions**

142 The government endorses the following actions as being necessary for the protection  
143 and recovery of *rufa*. Actions identified as “high” may be given priority consideration for  
144 funding under the Species at Risk Stewardship Program. Where reasonable, the  
145 government will also consider the priority assigned to these actions when reviewing and  
146 issuing authorizations under the ESA. Other organizations are encouraged to consider  
147 these priorities when developing projects or mitigation plans related to species at risk.

148	<b>Focus Area:</b>	<b>Research and Monitoring</b>
149	<b>Objective:</b>	Increase understanding of <i>rufa</i> population levels and trends, life 150 history characteristics and the threats impacting the species in 151 Ontario.

152 As *rufa* is reliant on a relatively small number of key stopover areas, including remote  
153 areas along the Hudson and James Bay coasts in Ontario, it is important to monitor the  
154 species and its habitat in these areas to evaluate the effectiveness of recovery efforts  
155 and adjust as necessary. Although monitoring efforts have been undertaken in several  
156 jurisdictions in the last few decades, they have not been carried out in a standardized,  
157 consistent manner; developing and implementing standardized monitoring protocols will  
158 help further knowledge of the species and global population size and trends.

159 Despite recent efforts, the reasons for the species’ decline are not fully understood, and  
160 further collaborative research is required to fill knowledge gaps related to threats and  
161 life history characteristics (including movement and migration) to better direct recovery  
162 efforts. Investigating the severity and extent of the threats affecting the species in  
163 Ontario will further our understanding of their impact on global recovery. Knowledge of  
164 *rufa* may be further improved by working with interested Indigenous communities and  
165 Knowledge Holders to understand Traditional Ecological Knowledge of the species and  
166 encourage its integration into collaborative management actions.

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**Actions:**

1. **(High)** In collaboration with other jurisdictions, develop and implement standardized protocols to monitor *rufa* and its habitat within Ontario. Update protocols as necessary.
2. **(High)** Investigate the severity and extent of known and suspected threats to the species and its habitat within Ontario.
3. Collaborate with partners and other jurisdictions on research to better understand global population size and trends; migratory routes and behaviour; distribution and movement; and causes of population decline.
4. As appropriate, encourage the recording, sharing and transfer of Traditional Ecological Knowledge on *rufa*, where it has been shared by communities, to increase knowledge of the species and support future recovery efforts.

<b>Focus Area:</b>	<b>Habitat and Threat Management</b>
Objective:	Maintain the quality and quantity of existing migratory stopover habitat within Ontario, and support efforts to conserve key habitats outside Ontario.

Given the importance of the migratory stopover habitat in Ontario to the species, maintaining the quality and quantity of these habitats will be key to supporting *rufa* recovery globally. Efforts will focus on minimizing threats to the species in these key areas. Where habitat monitoring information identifies the need for efforts to maintain or enhance the quality of the habitat, they should be undertaken in collaboration with interested Indigenous communities and organizations as well as land users. Given the migratory nature of *rufa*, supporting efforts to conserve key habitats outside of Ontario will also be important to furthering recovery of the species.

**Actions:**

5. **(High)** Develop, implement, and assess the effectiveness of best management practices to minimize the impact of mining, quarrying and wind turbines on the *rufa* and their habitat.
6. Collaborate with partners and other jurisdictions on initiatives to conserve key habitats outside Ontario, such as efforts being undertaken through the Western Hemisphere Shorebird Reserve Network.

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- 202 7. If deemed necessary, undertake efforts to maintain or enhance  
203 migratory stopover areas within Ontario in collaboration with  
204 organizations, industry and interested Indigenous communities  
205 and organizations.  
206

<b>Focus Area:</b>	<b>Awareness</b>
Objective:	Increase level of public awareness of and engagement in protecting and recovering <i>rufa</i> in Ontario.

210 *Rufa* is typically found in remote areas along the coasts of Ontario's Far North. These  
211 areas are traditionally used by Indigenous peoples, as well as for recreation and  
212 industrial development. As a result, the involvement of several groups and organizations  
213 will be necessary to implement recovery actions and promote awareness of the species  
214 and its threats. Collaboration between organizations will support coordinated  
215 implementation of actions, improve efficiency and prevent duplication of efforts.  
216 Increased promotion and volunteer participation in established survey and monitoring  
217 programs will further awareness of the species, as well as contribute to filling knowledge  
218 gaps.

219 **Actions:**

- 220 8. **(High)** Collaborate with conservation partners, industry and  
221 Indigenous communities and organizations to promote  
222 awareness of *rufa* among people engaged in development,  
223 recreation, traditional uses and stewardship activities in and  
224 around *rufa* stopover areas in Ontario by sharing information on:
- 225 ○ how to identify the species;
  - 226 ○ the species' habitat requirements, including important  
227 migratory stopover areas;
  - 228 ○ the protection afforded to the species and its habitat  
229 under the ESA; and,
  - 230 ○ actions that can be taken to avoid or minimize impacts to  
231 the species and its habitat, such as minimizing  
232 disturbance of birds at stopover locations and reporting  
233 pollutant spills to the [Ontario Spills Action Centre](#).
- 234 9. Promote awareness and volunteer participation in established  
235 surveys and monitoring programs, such as the Ontario  
236 Shorebird Survey.

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237 **Implementing Actions**

238 Financial support for the implementation of actions may be available through the  
239 Species at Risk Stewardship Program. Conservation partners are encouraged to  
240 discuss project proposals related to the actions in this response statement with the  
241 program staff. The Ontario government can also advise if any authorizations under the  
242 ESA or other legislation may be required to undertake the project.

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

247 **Reviewing Progress**

248 The ESA requires the Ontario government to conduct a review of progress towards  
249 protecting and recovering a species not later than five years from the publication of this  
250 response statement. The review will help identify if adjustments are needed to achieve  
251 the protection and recovery of *rufa*.

252 **Acknowledgement**

253 We would like to thank all those who participated in the development of the Recovery  
254 Strategy for the Red Knot *rufa* subspecies (*Calidris canutus rufa*) in Ontario for their  
255 dedication to protecting and recovering species at risk.

256 **For Additional Information:**

257 Visit the species at risk website at [ontario.ca/speciesatrisk](http://ontario.ca/speciesatrisk)  
258 Contact the Natural Resources Information and Support Centre  
259 1-800-667-1940  
260 TTY 1-866-686-6072  
261 [nrisc@ontario.ca](mailto:nrisc@ontario.ca)