to

Recovery Strategy for the Hudsonian Godwit in Ontario

1 Hudsonian Godwit

2 Ontario Government Response Statement

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 Ontario government's legislative
- 6 commitment to protecting and recovering species at risk and their habitats.
- 7 Under the ESA, the government must ensure that a recovery strategy is prepared for
- 8 each species that is listed as endangered or threatened. A recovery strategy provides
- 9 science-based advice to government on what is required to achieve recovery of a
- 10 species.
- 11 Generally, within nine months after a recovery strategy is prepared, the ESA requires
- the government to publish a statement summarizing the government's intended actions
- and 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 considers (where
- 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 Indigenous Knowledge where it has been shared by communities
- and Knowledge Holders, as appropriate, and may be adapted if new information
- 20 becomes available. In implementing the actions in the response statement, the ESA
- 21 allows the government to determine what is feasible, taking into account social, cultural
- 22 and economic factors.

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- 23 The Recovery Strategy for the Hudsonian Godwit (*Limosa haemastica*) in Ontario was
- 24 completed on January 16, 2024.
- 25 Hudsonian Godwit is a large subarctic-breeding shorebird (36 to 42 cm in length)
- belonging to the sandpiper family. The species has grey to brown plumage, long dark
- 27 legs, and a long upturned bill that is pink-orange at its base with a darkened tip.

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- 29 Hudsonian Godwit is listed as a threatened species under the ESA, which protects both
- 30 the animal and its habitat. The ESA prohibits harm or harassment of the species and

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31 32	damage or destruction of its habitat without authorization or complying with the requirements of a regulatory exemption.
33 34	Hudsonian Godwit also receives protection under the <i>Migratory Birds Convention Act,</i> 1994, which protects adults and young birds, as well as their nests and eggs in Canada.
35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	Hudsonian Godwit has one of the longest migrations of any North American shorebird, travelling round trip from South America to subarctic North America each year. Individuals of the species spend the majority of the year in southern Chile and southern and eastern Argentina. During spring migration, birds travel north towards breeding grounds, which involves crossing through Central America and making stopovers in the Great Plains region of the United States and Canada. Migrants then continue to one of three disjunct breeding areas: (i) Alaska (ii) the Mackenzie Delta of the Northwest Territories, and (iii) the Hudson Bay Lowlands of Ontario, Manitoba and Nunavut. The species is considered to have three distinct subpopulations based on the three different breeding areas. Depending on the breeding subpopulation, southbound migration back to overwintering areas often begins with staging at lakes or wetlands in parts of Alaska, the Canadian Prairies, or coastal areas of Hudson Bay, James Bay, the Gulf of St. Lawrence and the Bay of Fundy. Important staging or stopover sites in Ontario include the Albany River Estuary and Associated Coastline Important Bird Area (IBA), the Pei lay sheesh kow IBA, and Chickney Point.
50 51 52 53	Following staging, most birds make non-stop flights over the Atlantic Ocean before stopping over in the Amazon basin, though Alaskan breeders may fly over mainland North America. The Hudsonian Godwit migration ends with birds continuing south and arriving in their wintering grounds on the coasts of Argentina and Chile.
54 55 56 57 58 59 60 61 62 63	In Ontario, the Hudson Bay Lowlands, from approximately the Manitoba border to Cape Henrietta Maria, are an important breeding ground for the species. Individuals of the species typically remain within 50 km of Hudson Bay, but can occasionally be found as far as 100 km inland. The Hudson Bay Lowlands are also important for migration, serving as a staging area for all three breeding subpopulations, where birds rest and consume food and water before migrating south for the winter. Southbound migrants may also occasionally be found in parts of southern and eastern Ontario as they rest and refuel before continuing on to South America. Birds from the Hudson Bay Lowlands breeding subpopulation are generally believed to winter in the southern Patagonia region of Argentina and Chile.
64 65	Hudsonian Godwit breeds in subarctic and boreal region wetlands, often near coastal mudflats or major river systems. The species shows a preference for transition areas

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between coastal tundra and the tree line. These regions are dominated by herbaceous plants, with scattered trees and shrubs, which provide cover for nests. Members of the species likely begin breeding at two years of age, with breeding pair formation occurring soon after spring arrival. Nests are built in shallow depressions in soil or vegetation on dry hummocks near water, usually 200 to 500 m away from other nests. A single clutch of approximately four eggs is laid within two weeks and incubated for three to four weeks before hatching. Hatching success is upwards of 80 percent, but eggs and chicks may be lost due to predation by Red Fox (Vulpes vulpes) and various bird species including Northern Harriers (Circus hudsonius), Common Raven (Corvus corax) and Parasitic Jaegar (Stercorarius parasiticus). Both parents protect chicks until they fledge. which usually occurs within three weeks. The generation time of Hudsonian Godwit is estimated to be seven to eight years. The species primarily feeds on invertebrates throughout its range (insects and gastropods on breeding grounds, and worms, bivalves and crustaceans elsewhere), but will also feed on plants during migration. Migratory stopover and winter habitat includes a variety of salt and freshwater wetlands that provide abundant terrestrial and aquatic prey.

Monitoring over recent decades has shown a global decline of over 90 percent since 1980. Surveys on wintering grounds suggest the Hudson Bay Lowlands breeding subpopulation may be decreasing upwards of four percent per year, though the rate of decline has not been quantified specifically for Ontario breeders. Due to its dependence on various habitats throughout North, Central and South America, Hudsonian Godwit is exposed to both local and global threats. Habitat alteration and severe weather events due to climate change threaten the species throughout its range due to storms, drought, flooding and sea level rise. Changes in food availability, increased predation and reduced nesting habitat are also likely to impact Hudsonian Godwit due to the effects of changing climate on other species. Breeding habitat is threatened by hyperabundant Snow Geese (Anser caerulescens) and Canada Geese (Branta canadensis), which reduce plant cover required for nesting by overgrazing. Migratory stopover sites in South America are threatened by hydropower dams, which alter habitat, and stopover habitat throughout the Americas is being degraded by pollution and sedimentation from land use changes, agriculture, shipping and other industries. Hunting may pose a threat to Hudsonian Godwit in some parts of its global range.

Much of what is known about Hudsonian Godwit is based on research conducted outside of Ontario, and many knowledge gaps must be addressed to effectively protect and recover the species. Due to its broad geographic range and high mobility, systematic surveys are required to better understand the species' distribution during the breeding period, and to identify key migratory staging and stopover sites in the province. Standardized monitoring is also required to better understand the species' ecology,

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104 habitat use, population size and viability in Ontario. Research to determine home range 105 size is necessary to effectively protect habitat, and threat assessments are needed to 106 inform recovery approaches. 107 Hudsonian Godwit is a migratory species that relies on habitat and experiences 108 numerous threats outside the province. It is recognized that recovery will require 109 collaboration and recovery efforts at a variety of scales. Maintaining important breeding, 110 staging and stopover habitats within Ontario and supporting inter-jurisdictional efforts to 111 protect and conserve shorebirds will be key to the global recovery of the species. 112 **Government's Recovery Goal** 113 The government's goal for the recovery of Hudsonian Godwit is to achieve a stable or 114 increasing number of breeding pairs in Ontario in order to support a self-sustaining 115 Hudson Bay Lowlands breeding subpopulation. 116 117 **Actions** 118 Protecting and recovering species at risk is a shared responsibility. No single agency or 119 organization has the knowledge, authority or financial resources to protect and recover 120 all of Ontario's species at risk. Successful recovery requires inter-governmental co-121 operation and the involvement of many individuals, organizations and communities. In 122 developing the government response statement, the government considered what 123 actions are feasible for the government to lead directly and what actions are feasible for 124 the government to support its conservation partners to undertake. 125 **Government-led Actions** 126 To help protect and recover Hudsonian Godwit, the government will directly undertake 127 the following actions: 128 Continue to protect Hudsonian Godwit and its habitat through the ESA. 129 Continue to collaborate with partners and other jurisdictions to fill knowledge 130 gaps and implement conservation actions for subarctic shorebirds through 131 initiatives such as the Ontario Shorebird Survey, James Bay Shorebird Project 132 and Burntpoint Creek Research Station shorebird ecology studies.

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133 Continue to hold spillers accountable through the enforcement of the 134 Environmental Protection Act and implement the Ministry of the Environment and 135 Climate Change Emergency Response Plan (2017) as necessary to respond to 136 environmental spills within Ontario. 137 · Undertake communications and outreach to increase public awareness of 138 species at risk in Ontario (e.g., through Ontario Parks Discovery Program, where 139 appropriate). 140 Continue to monitor populations and mitigate threats to the species and its 141 habitat in provincially protected areas, where feasible and appropriate. 142 • Educate other agencies and authorities involved in planning and environmental 143 assessment processes on the protection requirements under the ESA. 144 Encourage the submission of Hudsonian Godwit data to Ontario's central repository through the NHIC (Rare species of Ontario) project in iNaturalist or 145 146 directly through the Natural Heritage Information Centre. 147 Continue to support conservation, agency, municipal and industry partners, and 148 Indigenous communities and organizations to undertake activities to protect and 149 recover Hudsonian Godwit. Support will be provided where appropriate through 150 funding, agreements, permits and/or advisory services. 151 Work with all levels of government, communities and sectors to take action on 152 climate change, and to report on progress in reducing greenhouse gas 153 emissions. 154 • Conduct a review of progress toward the protection and recovery of Hudsonian 155 Godwit within five years of the publication of this document. 156 **Government-supported Actions** 157 The government endorses the following actions as being necessary for the protection 158 and recovery of Hudsonian Godwit. Actions identified as "high" may be given priority 159 consideration for funding under the Species at Risk Stewardship Program. Where 160 reasonable, the government will also consider the priority assigned to these actions 161 when reviewing and issuing authorizations under the ESA. Other organizations are 162 encouraged to consider these priorities when developing projects or mitigation plans 163 related to species at risk.

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164	Focus Area:	Monitoring and Research			
165 166	Objective:	Address knowledge gaps related to Hudsonian Godwit distribution, habitat, biology and threats.			
167 168 169 170 171 172 173 174 175 176	In order to better focus actions to support the protection and recovery of Hudsonian Godwit, it is important to understand which parts of the province the species uses throughout its life cycle. Standardized survey methods will improve knowledge of the species' distribution during breeding, staging, and migration, and allow for Ontario-specific population estimates. Identification of key habitat areas used by the species is essential to understanding threats and prioritizing management activities. Targeted research relating to threats across the species' range will help clarify factors driving declines and appropriate mitigating actions. This knowledge, combined with information on current population status and demographic rates, is necessary to develop population viability models that will allow for the development of quantitative recovery targets and better-informed recovery approaches.				
178 179 180 181 182	1.	ions: (High) Continue to implement existing standardized surveys (e.g., Ontario Breeding Bird Atlas, Ontario Shorebird Survey) and, where necessary, develop or promote the systematic application of standardized inventory and monitoring protocols to:			
183 184 185		 i. determine Hudsonian Godwit breeding distribution and population trends in Ontario, and, where necessary and appropriate, on the wintering grounds of Ontario breeders 			
186 187 188 189	j	ii. locate, identify and describe Hudsonian Godwit habitat used for breeding, staging and migratory stopovers in Ontario, including through the use of radio telemetry or GPS tracking, where appropriate			
190 191	ii	ii. identify key habitat areas used by one percent or more of the Hudson Bay Lowlands breeding subpopulation			
192 193 194 195		(High) Conduct research to improve knowledge on Hudsonian Godwit biology and ecology, such as diet, home range size in breeding areas, demographic parameters (e.g., nest success, juvenile survival, adult survival), and minimum viable population size.			
196 197 198		Investigate the impacts and potential mitigation measures of known and potential threats to Hudsonian Godwit in breeding, staging and migration habitat. Targeted areas of research may include:			

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199		i. (Hig	h) climate change and severe weather
200 201		ii.	(High) overgrazing by Snow Geese and Canada Geese in the Hudson Bay Lowlands
202		iii.	dams and other natural system modifications
203		iv.	pollution and sedimentation
204		٧.	hunting
205 206 207 208	4.	Tradition been sh	opriate, encourage the recording, sharing and transfer of nal Ecological Knowledge on Hudsonian Godwit, where it has ared by communities, to increase knowledge of the species and future recovery efforts.
209	Focus Area:	Ma	anagement
210 211	Objective:		aintain or improve Hudsonian Godwit habitat and mitigate threats Ontario breeders and migrants.
212 213 214 215 216 217 218	through Ontar will support bin (i.e., those bre percent of the benefit multipl	rio. Efforts rds relyin eeding gr Hudson le species	the world's Hudsonian Godwit population breed in or migrate is to maintain or increase habitat quality and manage local threats ig on these areas. Focus should be placed on key habitat areas ounds and staging or stopover sites that support at least one Bay Lowlands breeding subpopulation). Recovery efforts that is at risk should be considered whenever possible. A collaborative stial in the ongoing management of the species.
219	Act	tions:	
220 221 222 223 224	5.	organiza specific habitat,	n collaboration with landowners, land managers, conservation ations and Indigenous communities, identify and mitigate sitethreats to Hudsonian Godwit at breeding, staging and stopover and restore or rehabilitate habitat in Ontario where necessary propriate.
225 226 227 228	6.	key hab	rate with partners and other jurisdictions on initiatives to conserve itats within and outside of Ontario, such as efforts being ken through the Western Hemisphere Shorebird Reserve
229	Focus Area:	St	ewardship and Awareness
230 231 232	Objective:	pro	crease the level of public awareness and engagement in otecting and recovery Hudsonian Godwit throughout its global nge.

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Hudsonian Godwit is a highly mobile species that uses habitat across North, Central

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234	and South America, and is impacted by global and local threats throughout its range. It				
235	is important to promote awareness and collaborate with the international community to				
236	ensure protection and stewardship activities reduce threats to the species in migration				
237	and wintering habitat. When possible, information should be shared with other				
238	jurisdictions to enhance understanding of the species and coordinate efforts. Within				
239	Ontario, partnerships with interested Indigenous communities and organizations will				
240	improve knowledge sharing and stewardship opportunities.				
241	Actions:				
242	7. (High) Collaborate with other jurisdictions, organizations and				
243	communities throughout the global range of Hudsonian Godwit to:				
244	i. promote awareness of the species and its threats				
245	ii. encourage consistent monitoring and data sharing				
246	iii. identify, protect and manage habitat				
247	iv. research, increase awareness of, and mitigate the impacts of climate				
248	change on the species				
249	v. encourage rapid response to spills and other discharges to surface				
250	water				
251	8. Maintain or develop partnerships with Indigenous communities and				
252	organizations to share knowledge and obtain input on recovery actions.				
253	9. Implement initiatives in human-populated parts of the species' range to				
254	reduce human disturbance in key habitat areas where necessary, such				
255	as:				
256	i. posting educational signage about the species and its threats				
257	ii. implementing requirements for dogs to be leashed				
258	iii. restricting access to portions of shorelines if negative impacts are				
259	observed				
260	Implementing Actions				
261	Financial support for the implementation of actions may be available through the				
262	Species at Risk Stewardship Program. Conservation partners are encouraged to				
263	discuss project proposals related to the actions in this response statement with Ministry				
264	of the Environment, Conservation and Parks staff. The Ontario government can also				
265	provide guidance about the requirements of the ESA, whether an authorization or				

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266 267 268 269 270 271	regulatory exemption may be required for the project and, if so, the authorization types and/or conditional exemptions for which the activity may be eligible. Implementation of the actions may be subject to changing priorities across the multitude of species at risk, available resources and the capacity of partners to undertake recovery activities. Where appropriate, the implementation of actions for multiple species will be co-ordinated across government response statements.			
272	Performance Measures			
273 274 275	Progress towards achieving the government's goal for the recovery of Hudsonian Godwit will be measured against the following performance measures:			
276 277	 By 2039, the Hudson Bay Lowlands breeding subpopulation is stable or increasing. 			
278	By 2039, the number of breeding pairs in Ontario is stable or increasing.			
279 280	 By 2054, the Hudson Bay Lowlands breeding subpopulation is stable and self- sustaining. 			
281	Reviewing Progress			
282 283 284 285 286	The ESA requires the Ontario government to conduct a review of progress towards protecting and recovering a species no later than the time specified in the species' government response statement, which has been identified as five years. The review will help identify if adjustments are needed to achieve the protection and recovery of Hudsonian Godwit.			
287	Acknowledgement			
288 289 290 291	We would like to thank all those who participated in the development of the Recovery Strategy and Government Response Statement for the Hudsonian Godwit (<i>Limosa haemastica</i>) in Ontario for their dedication to protecting and recovering species at risk.			

For Additional Information:
Visit the species at risk website at ontario.ca/speciesatrisk
Contact the Ministry of the Environment, Conservation and Parks
1-800-565-4923
TTY 1-855-515-2759
www.ontario.ca/environment