

EXECUTIVE SUMMARY – Recovery Strategy for the Forked Three-awned Grass (*Aristida basiramea*) in Ontario

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The Recovery Strategy for the Forked Three-awned Grass (*Aristida basiramea*) in Canada was prepared by Judith Jones for Parks Canada Agency to meet the requirements of the *Accord for the Protection of Species at Risk in Canada*. This recovery strategy is being adopted under the *Endangered Species Act, 2007* (ESA 2007), which requires the Minister of Natural Resources to ensure recovery strategies are prepared for all species listed as endangered or threatened. With the addition of new information, the Recovery Strategy for the Forked Three-awned Grass (*Aristida basiramea*) in Canada meets all of the content requirements outlined in the ESA 2007.

EXECUTIVE SUMMARY

The Endangered Forked Three-awned Grass, also called Ice Age Grass, (*Aristida basiramea*) is an annual grass found in dry, open, acidic sand barrens, but the species will exploit weedy habitats associated with these sites, such as roadside ditches and old fields. It is highly intolerant of shading and competition from other plants.

Less than 1% of the global population of *A. basiramea* occurs in Canada, with the core range in the Midwestern United States. In Canada, *A. basiramea* is currently known from five naturally occurring sites: Cazaville in southwestern Québec; and Christian Island, Beausoleil Island, Anten Mills, and Macey Lake, all in the southern Georgian Bay area of Ontario. Total number of plants in Canada is estimated to be >150,000; most of the population occurs at only four sites and total occupancy (all sites) is about 20 km². The largest population is that at Christian Island, where it was documented in 2005 as occurring in 15 sub-populations totaling over 100,000 individuals.

Habitat availability and associated ecological processes are the most important limiting factors for the species in Canada. Threats include limited habitat, sand extraction, succession and absence of ecological processes, development, planting of conifers, invasive species, ATV use, agricultural practices, and garbage dumping. Given the current state of our knowledge, critical habitat for the species cannot be defined precisely enough at this time without further studies. A summary of available knowledge is presented including the types of habitat where the species has been found so far. Unoccupied patches of open sandy soil in the vicinity of occupied ones are considered important habitat. The recovery goal is to maintain self-sustaining populations of *Aristida basiramea* at all the sites where the species is of native origin in Canada, as part of Canada's natural heritage, and as a fulfillment of the government of Canada's

commitments to protect biodiversity. The recommended approach is to protect habitats, on a site-by-site basis, as follows:

- Georgian Bay Islands National Park, Beausoleil Island: park management and zoning.
- Macey Lake: cooperative work with private landowners and the municipality on stewardship.
- Anten Mills: cooperative stewardship and exploration of other tools.
- Christian Island: 1) cooperative work with Beausoleil First Nation on stewardship and 2) outreach and dialogue with owners of Certificate of Possession lands.
- Cazaville: 1) consideration to make a designation such as *Habitat Floristique* or natural reserve on private lands under the Québec's legislation ; 2) education and outreach to private landowners on stewardship actions.

Knowledge Gaps are:

- 1) Locations of other potential populations in the Southern Georgian Bay region.
- 2) Population dynamics, trends and viability, the importance of the soil seed bank.
- 3) Factors which maintain critical habitat in sand barrens: the role of fire and other processes which clear ground. This study is needed to define critical habitat.
- 4) Traditional Native knowledge about the history of Ice Age Grass.

Action plans will be prepared within four responsibility areas: Province of Ontario, Province of Québec, Parks Canada Agency, and Beausoleil First Nation. Many starting points for the development of action plans are listed in the strategy. Actions already underway or completed are listed in Appendix 1.