

EXECUTIVE SUMMARY – Recovery Strategy for the Pale-bellied Frost Lichen (*Physconia subpallida*) in Ontario

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Pale-bellied Frost Lichen (*Physconia subpallida*) is an endangered macrolichen. This foliose lichen is most often found on Eastern Hop-hornbeam (*Ostrya virginiana*) in mature to old-growth, humid forests. Historic locations were recorded by John Macoun 100 years ago near Belleville, Brighton and Ottawa. Currently there are only three known remaining populations in Ontario of which none are considered as one of Macoun's historic records.

The overall goal of this recovery strategy is to maintain the size and distribution of all extant and newly discovered populations of Pale-bellied Frost Lichen in Ontario, with hopes of population increases through habitat protection, and to fill in some of the identified knowledge gaps. The objectives of the recovery strategy are to:

1. Protect individuals and habitat at all known occurrences of Pale-bellied Frost Lichen.
2. Provide communication and outreach materials on Pale-bellied Frost Lichen and its recovery to relevant landowners, land managers, municipalities and planners to restrict habitat destruction at any of the known sites.
3. Inventory and map all known Pale-bellied Frost Lichen locations, populations and habitats by 2016 to provide quantitative baseline data for future monitoring, and initiate a monitoring program.
4. Conduct surveys for Pale-bellied Frost Lichen in suitable habitat.
5. Conduct research to address knowledge gaps for Pale-bellied Frost Lichen.

The recovery approaches recommended in this recovery strategy should be carried out in part or in whole by 2016.

These objectives can be achieved through research, inventory and monitoring, protection and management, as well as education and stewardship.

Edge effects, caused by forest disturbance have been shown to impact groups of common forest lichens up to a distance of 50 m. Relatively rare interior forest lichen species, reliant on old-growth forest characteristics and sensitive to microhabitat disturbance, like the Pale-bellied Frost Lichen, would potentially require greater distances to maintain their required habitats. Deep forest-interior species are found in areas that are greater than 200 m from the forest edge. It is recommended that the minimum area that should be prescribed as habitat in a

habitat regulation include a 200 m radius surrounding each host tree, or colony of host trees.