## COSEWIC Status Appraisal Summary

on the

# Frosted Elfin Callophrys irus

in Canada

EXTIRPATED 2010

**COSEWIC** Committee on the Status of Endangered Wildlife in Canada



**COSEPAC** Comité sur la situation des espèces en péril au Canada COSEWIC status appraisal summaries are working documents used in assigning the status of wildlife species suspected of being at risk in Canada. This document may be cited as follows:

COSEWIC. 2010. COSEWIC status appraisal summary on the Frosted Elfin *Callophrys irus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii pp. (www.sararegistry.gc.ca/status/status\_e.cfm).

Production note:

This status appraisal summary constitutes a review of classification of the Frosted Elfin *Callophrys irus* in Canada which was last assessed by COSEWIC in 2000. The 2000 COSEWIC Status Report on the Frosted Elfin *Callophrys irus* in Canada is posted on the Species at Risk Public Registry at this link: http://www.sararegistry.gc.ca/species/speciesDetails\_e.cfm?sid=590

COSEWIC would like to acknowledge Ross A. Layberry for writing the status appraisal summary on the Frosted Elfin *Callophrys irus* in Canada, prepared under contract with Environment Canada. This status appraisal summary was overseen and edited by Laurence Packer, Co-chair of the Arthropods Specialist Subcommittee.

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Également disponible en français sous le titre Sommaire du statut de l'espèce du COSEPAC sur le Lutin givré (*Callophrys irus*) au Canada.

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#### Assessment Summary – April 2010

Common name Frosted Elfin

Scientific name Callophrys irus

Status Extirpated

#### Reason for designation

\* A reason for designation is not specified when a review of classification is conducted by means of a status appraisal summary.

Occurrence Ontario

Status history Extirpated by 1988. Designated Extirpated in April 1999. Status re-examined and confirmed in May 2000 and in April 2010.



## **Status Appraisal Summary**

Callophrys irus Frosted Elfin

Lutin givré

Jurisdictions: Ontario

#### Current COSEWIC Assessment:

Status category:

🖂 XT	🗌 E	ПТ	🗌 SC

Date of last assessment: May 2000

Reason for designation at last assessment: This butterfly is known to have occurred in one restricted area of oak savannah (earlier suggestions that it occurred in a second area were based upon misidentification). It was last recorded in 1988 and has not been seen since despite repeated surveys during the last 10 years.

Criteria applied at last assessment:

No criteria given at last assessment.

## Recommendation: Update to the status report NOT required (species' status category remains unchanged)

Reason:

Sufficient information to conclude there has been no change in status category

#### Evidence (indicate as applicable):

Wildlife species: Change in eligibility, taxonomy or designatable units:	yes 🗌	no 🖂
Explanation:		
No additional data since previous assessment.		
Range: Change in Extent of Occurrence (EO): Change in Area of Occupancy (AO) : Change in number of known or inferred current locations: Significant new survey information	yes □ yes □ yes □ yes □	no ⊠ no ⊠ no ⊠ no ⊠
Explanation:		
No additional data since previous assessment.		

Population Information:		
Change in number of mature individuals:	yes 🗌	no 🖂
Change in total population trend:	yes 🗌	no 🖂
Change in severity of population fragmentation:	yes 🗌	no 🖂
Significant new survey information	yes 🖂	no 🗌
Explanation:		
The only known Ontario site for this species has been regularly explored, during flight season, by experienced lepidopterists since the date of the previous asses Robert J. Yukitch and Fred J. Urie (TEA 1999), by Robert J. Yukitch (TEA 2000, 2008), by James Kamstra (TEA 2007) and by Colin D. Jones and Robert J. Yuk species, including Duskywing Skippers and other Elfins, whose flight seasons can the Frosted Elfin, were reported, confirming that the dates and weather condition. These reports only comprise visits where there were enough observations of other reporting worthwhile; there were undoubtedly other, less successful, trips by the observers. It has also been looked for at the original site and other areas with its Norfolk Country by other lepidopterists such as Kirk Zufelt, Ken Stead and W.G, Despite this, there was absolutely no sign of the Frosted Elfin.	sment: by TEA2006, <sup>-</sup> itch (TEA 20 bincided with ns were opti- ner species to se and othe s larval food	TEA 109). In that of mal. to make r plant in
Threater		
Threats: Change in nature and/or severity of threats:	yes 🗌	no 🛛
Explanation:		
No additional data since previous assessment.		
·		
Protection:		
·	yes 🗌	no 🖂
Protection:	yes 🗌	no 🛛
Protection: Change in effective protection:	evel. Provin originally list as at first ma Endangered ctually prote was change ontario Lis ive species p itat protectio At the provi I such time t	cially, ed as aintained , the ected ed from t protection on would ncial hat the
Protection:   Change in effective protection:   Explanation:   There has been no change in effective protection for this species at the federal I there have been some recent changes in effective protection. The species was a Endangered in 1990 under Ontario's old Endangered Species Act (1971) and w as Endangered under the new Endangered Species Act, 2007 (ESA 2007). As E species received both species and habitat protection, although no habitat was a since there were no extant sites. In September 2010, however, its classification Endangered to Extirpated (the appropriate designation) in the Species at Risk ir regulation under the ESA 2007. Under the act, species listed as Extirpated rece but not habitat protection, unless a habitat regulation is prescribed. General hab automatically apply if the designation is changed to Endangered or Threatened. level, under the ESA 2007, there are no requirements for recovery planning unti province determines that reintroduction is feasible. Its SRANK in Ontario is SX (Ontario and Canadian General Status is "Extirpated".	evel. Provin originally list as at first ma Endangered ctually prote was change ontario Lis ive species p itat protectio At the provi I such time t	cially, ed as aintained , the ected ed from t protection on would ncial hat the
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Quantitative Analysis: Change in estimated probability of extirpation:

yes 🗌 no 🖂

Details:

No additional data since previous assessment.

#### Summary and Additional Considerations:

This species is unquestionably extirpated in Ontario and Canada. There have been no reliable sightings since at least 1988, despite searches by experienced observers. The writer could find no evidence of any attempt at reintroduction if the species. So the previous status of Extirpated should be maintained.

#### List of reviewers:

The Status Appraisal Summary was sent to the following jurisdictions for review:

- Canadian Wildlife Service
- Parks Canada Agency
- Province of Ontario (Alan Dextrase and Michael Oldham)
- Members of the COSEWIC Arthropods Species Specialist Subcommittee
- Members of the Aboriginal Traditional Knowledge Subcommittee (Donna Hurlburt and Dan Benoit)

### Sources of information:

Dextrase, A., 2009. Personal communication to Laurence Packer.

- TEA 1999: Toronto Entomological Association Publication 31-1999: Butterflies of Ontario and Summaries of Lepidoptera Encountered in Ontario in 1998.
- TEA 2000: Toronto Entomological Association Publication 32-2000: Butterflies of Ontario and Summaries of Lepidoptera Encountered in Ontario in 1999.
- TEA 2006: Toronto Entomological Association Publication 36-2006: Ontario Lepidoptera 2003-2004.
- TEA 2007: Toronto Entomological Association Publication 37-2007: Ontario Lepidoptera 2005.
- TEA 2008: Toronto Entomological Association Publication 38-2008: Ontario Lepidoptera 2006-2007.
- TEA 2009: Toronto Entomological Association Publication 39-2008: Ontario Lepidoptera 2008.



#### **COSEWIC HISTORY**

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) was created in 1977 as a result of a recommendation at the Federal-Provincial Wildlife Conference held in 1976. It arose from the need for a single, official, scientifically sound, national listing of wildlife species at risk. In 1978, COSEWIC designated its first species and produced its first list of Canadian species at risk. Species designated at meetings of the full committee are added to the list. On June 5, 2003, the *Species at Risk Act* (SARA) was proclaimed. SARA establishes COSEWIC as an advisory body ensuring that species will continue to be assessed under a rigorous and independent scientific process.

#### **COSEWIC MANDATE**

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assesses the national status of wild species, subspecies, varieties, or other designatable units that are considered to be at risk in Canada. Designations are made on native species for the following taxonomic groups: mammals, birds, reptiles, amphibians, fishes, arthropods, molluscs, vascular plants, mosses, and lichens.

#### **COSEWIC MEMBERSHIP**

COSEWIC comprises members from each provincial and territorial government wildlife agency, four federal entities (Canadian Wildlife Service, Parks Canada Agency, Department of Fisheries and Oceans, and the Federal Biodiversity Information Partnership, chaired by the Canadian Museum of Nature), three non-government science members and the co-chairs of the species specialist subcommittees and the Aboriginal Traditional Knowledge subcommittee. The Committee meets to consider status reports on candidate species.

#### DEFINITIONS (2010)

(2010)		
A species, subspecies, variety, or geographically or genetically distinct population of animal, plant or other organism, other than a bacterium or virus, that is wild by nature and is either native to Canada or has extended its range into Canada without human intervention and has been present in Canada for at least 50 years.		
A wildlife species that no longer exists.		
A wildlife species no longer existing in the wild in Canada, but occurring elsewhere.		
A wildlife species facing imminent extirpation or extinction.		
A wildlife species likely to become endangered if limiting factors are not reversed.		
A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.		
A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.		
A category that applies when the available information is insufficient (a) to resolve a species' eligibility for assessment or (b) to permit an assessment of the species' risk of extinction.		

- \* Formerly described as "Vulnerable" from 1990 to 1999, or "Rare" prior to 1990.
- \*\* Formerly described as "Not In Any Category", or "No Designation Required."
- \*\*\* Formerly described as "Indeterminate" from 1994 to 1999 or "ISIBD" (insufficient scientific information on which to base a designation) prior to 1994. Definition of the (DD) category revised in 2006.



Canada

The Canadian Wildlife Service, Environment Canada, provides full administrative and financial support to the COSEWIC Secretariat.