

Ontario Species at Risk Evaluation Report for

Least Bittern

Petit Blongios

(Botaurus exilis)

Committee on the Status of Species at Risk in Ontario
(COSSARO)

Assessed by COSSARO as Special Concern

January 2026

Final

Executive summary

Least Bittern (*Botaurus exilis*) is a small member of the Heron family that mainly breeds in the eastern United States and southern portions of eastern Canada. In Ontario, this species breeds primarily in Southern Ontario, as well as in northern Ontario near Fort Frances, Dryden, and east of Sault Ste. Marie. Northern breeding Least Bittern, including individuals from Ontario, are thought to overwinter in Florida, along the Gulf of Mexico coast through Texas to northern Mexico and Central America, as well as Baja California. The breeding population of Least Bittern in Ontario has been estimated at approximately 2,800 birds, which represents approximately three percent of the global population of this species. The breeding population of Least Bittern in Ontario is currently stable.

Least Bittern was previously classified as Threatened by COSSARO and is listed as such on the Species at Risk in Ontario List. It is currently listed as Threatened in Quebec and Endangered in Manitoba and has also been listed as Endangered or Threatened in U.S. states that border Ontario.

Overall threats impact to Least Bittern is considered to be medium-low and include habitat loss and degradation, collisions with vehicles and elevated infrastructure, colonization of breeding habitat by invasive plant species, disturbances associated with boating activities, alteration and changes to water levels, pollution and viral and parasitic outbreaks.

Least Bittern is classified as Special Concern in Ontario, based on criteria b and is consistent with the definition of status under the *Endangered Species Act, 2007* (does not meet criterion to be considered Endangered or Threatened, but may become Threatened or Endangered if identified threats are not managed). The change in status of this species is due to a non-genuine reason, with increased search effort leading to higher population estimates than in 2009. Evidence of continuing decline is therefore uncertain.

1. Eligibility for Ontario status assessment

1.1. Eligibility conditions

1.1.1. Taxonomic distinctness

Five subspecies of Least Bittern have been described based on plumage and morphology (Poole et al. 2024). Only one subspecies, *Botaurus exilis exilis*, breeds in Ontario.

This species was previously assessed by COSSARO in 2009 under the name *Ixobrychus exilis*. Based on molecular phylogenetic work by Hruska et al. (2023), *Ixobrychus* was merged with *Botaurus* by the American Ornithological Society, with this species now *Botaurus exilis* (COSEWIC 2024, IN PRESS).

1.1.2. Designatable units

A single designatable unit is recognized for Least Bittern in Ontario. There are no significant disjunctions in distribution of this species and there is no current evidence for genetic structuring in the Ontario population (COSEWIC 2024, IN PRESS).

1.1.3 Native status

Least Bittern (*Botaurus exilis*) is considered a native species in Ontario.

1.1.4. Occurrence

In Ontario, Least Bittern has been documented in suitable habitats throughout southern, central and northwestern portions of the province.

1.2. Eligibility results

Least Bittern (*Botaurus exilis*) is eligible for status assessment in Ontario.

2. Background information

2.1. Current designations

- GRANK: G4 (NatureServe 2025)
- IUCN: Least Concern (June 2025)
- NRANK Canada: N4B (NatureServe 2025)
- COSEWIC: Special Concern (November 2024)
- SARA: Threatened (Schedule 1, June 2003)
- MBCA protection: Yes
- Aquatic species under SARA: No
- COSSARO: Threatened (2009)
- ESA 2007 (Species at Risk in Ontario List): Threatened (2008)
- SRANK: S4B (ranked in 2009)

2.2. Distribution in Ontario

The majority of breeding sites for Least Bittern in the province are located in southern Ontario. Additional breeding sites have been documented in northern Ontario near Fort Frances, Dryden, and east of Sault Ste. Marie.

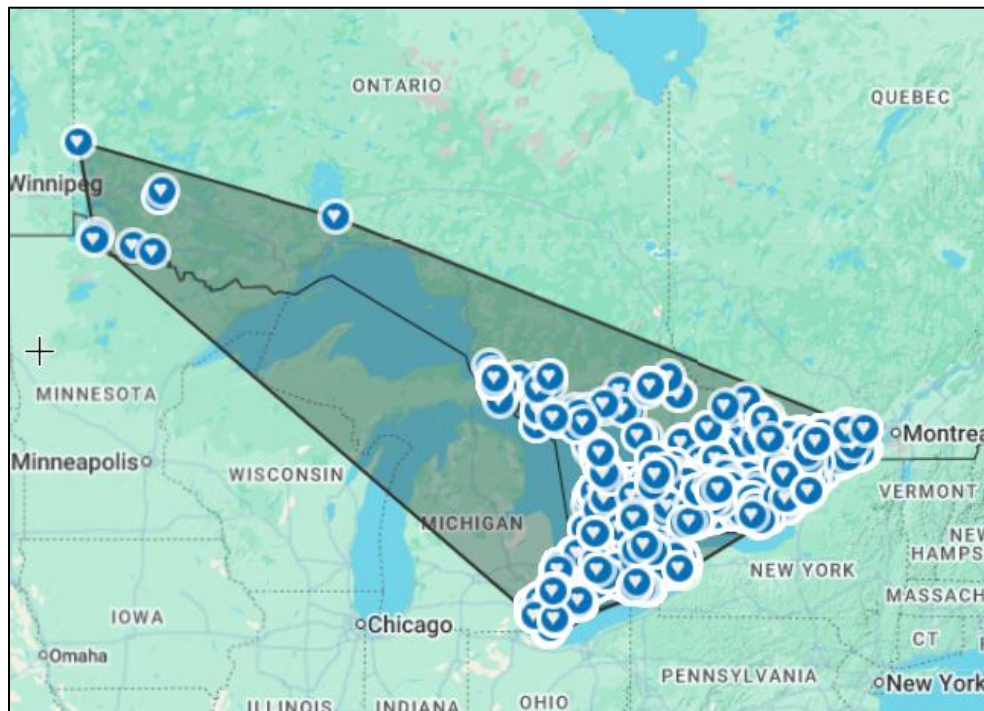


Figure 1. Extent of Element Occurrences of Least Bittern in Ontario. Created for this draft report using [GeoCAT](#) [website accessed December 12, 2025].

2.3. Distribution, status and the broader biologically relevant geographic range outside Ontario

Least Bittern mainly breeds in the eastern United States and southern portions of eastern Canada. The breeding range of Least Bittern extends from southern Manitoba, Ontario, Quebec and New Brunswick, south to the Caribbean and South America (COSEWIC 2024, IN PRESS). Northern-breeding birds winter along the Atlantic coastal plain as far north as Maryland, but are primarily concentrated in Florida, along the Gulf of Mexico coast through Texas to northern Mexico and Central America, as well as Baja California (COSEWIC 2024, IN PRESS).

Least Bittern is listed as Endangered in Manitoba and Threatened in Quebec. This species is also listed as Endangered or Threatened in states that boarder Ontario.

For the purposes of this assessment, the broader biologically relevant geographic range of Least Bittern includes states and provinces adjacent to Ontario.

Table 1. Condition of the Species in Adjacent Jurisdictions and Broader Biologically Relevant Geographic Range.

Adjacent Jurisdictions	Biologically Relevant to Ontario (n/a, yes, no)	Condition	Notes & Sources
Quebec	Yes	S2B (Threatened)	Natureserve (December 2025)
Manitoba	Yes	S2S3B (Endangered)	Natureserve (December 2025)
Michigan	Yes	S3 (Threatened)	Natureserve (December 2025)
Minnesota	Yes	SNRB	Natureserve (December 2025)
New York	Yes	S3B,S1N (Threatened)	Natureserve (December 2025)
Ohio	Yes	S2 (Endangered)	Natureserve (December 2025)
Pennsylvania	Yes	S2B,S2M (Endangered)	Natureserve (December 2025)
Wisconsin	Yes	S2S3B (Special Concern)	Natureserve (December 2025)

2.4. Ontario conservation responsibility

Ontario’s conservation responsibility for Least Bittern is considered low. The breeding population of Least Bittern in Ontario has been estimated at approximately 2800 birds (COSWEIC 2024, IN PRESS). This represents approximately 3% of the global population of this species, which is estimated to be 93,300-106,000 mature individuals (IUCN 2025). Ontario also represents less than 5% of the global range of Least Bittern.

2.5. Direct threats

A threats calculation completed as part of the 2024 COSEWIC assessment report for Least Bittern assigned an overall threat impact of medium-low (COSWEIC 2024, IN PRESS). Historical loss and degradation of wetland habitats associated with land development and agricultural practices reduced the quality and quantity of suitable breeding habitat in Ontario, however current habitat threats related to these land uses are considered to be low.

Least Bittern flies low to the ground and migrates at night. Collisions with vehicles, boats, fences, utility lines and similar elevated infrastructure can be an important source of mortality (Environment Canada 2014), although the severity of these threats are considered to be low.

Invasive plant species such as Purple Loosestrife, Reed Canary Grass, Common Reed and hybrid Cattail have been documented to outcompete the native cattails which are important breeding habitat for Least Bittern. Threats associated with Least Bittern displacement by invasive species are considered to be low.

Potential threats to Least Bittern associated with human disturbance (boating activities), natural system modifications (alteration of water levels), pollution (wastewater, oil spills, and agricultural runoff) and climate change (changes in water levels) are also considered to be low. Although Least Bittern may be susceptible to viral and parasitic outbreaks, threats related to diseases and parasites are unknown.

2.6. Specialized life history or habitat use characteristics

Least Bittern nests primarily in freshwater emergent marshes greater than 5 ha in size, with less commonly used habitats consisting of marshy edges of lakes, ponds, bogs, rivers, streams, and ditches, and in brackish and coastal salt marshes (Environment Canada 2014; Poole et al. 2024). Least Bittern forages by stalking along the open-water side of emergent vegetation, grasping clumps of plants with its long toes and curved claws (Poole et al. 2024). Siltation and turbidity makes foraging less efficient (Poole et al. 2024).

Least Bittern's secretive habits and relatively impenetrable habitat still make it one of North America's most poorly known birds (COSEWIC 2024, IN PRESS). Least Bitterns from Ontario are thought to overwinter in the southern United States or throughout Central America (Poole et al. 2024), however data on key migration routes and stopover sites are unknown (COSEWIC 2024, IN PRESS). Habitat use during migration and overwintering is thought to be similar to breeding habitat (Poole et al. 2024).

3. Ontario status assessment

3.1. Application of endangered/threatened status in Ontario

3.1.1. Criterion A – Decline in total number of mature individuals

Does not apply. Evidence for a decline is uncertain and does not meet thresholds for Threatened.

3.1.2. Criterion B – Small distribution range and decline or fluctuation

Does not apply. EOO (648,006km²) and IAO (6,032km²) surpasses thresholds for Threatened.

3.1.3. Criterion C – Small and declining number of mature individuals

Does not apply. Estimated number of mature individuals (2800) is below the threshold for Threatened and all individuals are in a single subpopulation, but evidence for a continuing decline is uncertain and there are no extreme fluctuations in the number of mature individuals.

3.1.4. Criterion D – Very small or restricted total population

Does not apply. Estimate of 2800 mature individuals is above the threshold for D1.

3.1.5. Criterion E – Quantitative analysis

Does not apply. Analysis not conducted.

3.2. Application of Special Concern in Ontario

Least Bittern meets the definition of Special Concern in Ontario. Least Bittern does not meet thresholds for Endangered or Threatened, but may become Threatened or Endangered if identified threats continue or population declines further.

3.3. Status category modifiers

3.3.1. Ontario's conservation responsibility

Ontario's conservation responsibility is low. Less than 5% of the global population of Least Bittern is suspected to breed in Ontario. A small portion of breeding range for this species is located in Ontario.

3.3.2. Status modification based on level of risk in broader biologically relevant geographic range

Status modifiers related to BBRGR were not considered as part of this assessment.

3.3.3. Rescue Effect

Rescue effect from Manitoba, Quebec and populations in the northern United States is unlikely. Populations are small or declining in many adjacent jurisdictions.

3.4. Other status categories

3.4.1. Data deficient

Does not apply.

3.4.2. Extinct or extirpated

Does not apply.

3.4.3. Not at risk

Does not apply.

4. Summary of Ontario status

Least Bittern (*Botaurus exilis*) is classified as Special Concern in Ontario. This species does not meet criterion to be considered Endangered or Threatened, but may become Threatened or Endangered because of a combination of biological characteristics and identified threats.

No status modifiers were applied to this assessment.

This status of this species is consistent with the definition of Special Concern under the *Endangered Species Act, 2007*.

The change in status of this species from the 2009 assessment is considered a non-genuine¹ change based on the assumption that the breeding population of Least Bittern in Ontario is currently stable.

¹ A change in the classification of a species during reassessment by COSSARO may be for genuine or non-genuine reasons. Genuine reasons may include a reduction in threats to a species such that status of the species has improved, or the continuation of threats to the species such that the status of the species has further deteriorated. Non-genuine reasons may include new information on population size or threats that was not available during a previous assessment, the use of previous COSSARO criteria that may have yielded a different result or, taxonomic revisions that result in changes in range, population sizes or designatable units.

5. Information sources

COSEWIC. 2024. IN PRESS. COSEWIC assessment and status report on the Least Bittern *Botaurus exilis* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii + 49 pp.

Environment Canada. 2014. Recovery Strategy for the Least Bittern (*Ixobrychus exilis*) in Canada. Species at Risk Act Recovery Strategy Series. Environment Canada. Ottawa. Vi + 41 pp.

Hruska, J.P., J. Holmes, C. Oliveros, S. Shakya, P. Lavretsky, K.G. McCracken, F.H. Sheldon, and R.G. Moyle. 2023. Ultraconserved elements resolve the phylogeny and corroborate patterns of molecular rate variation in herons (Aves: Ardeidae). *Ornithology* 140(2): p.ukad005.

IUCN. 2025. The IUCN Red List of Threatened Species. Version 2025-2. <https://www.iucnredlist.org> [accessed December 2025].

Natureserve. 2025. NatureServe Explorer [web application]. NatureServe, Arlington, Virginia. Website: <https://explorer.natureserve.org/> [accessed December 2025].

Ontario Ministry of Natural Resources and Forestry. 2016. Recovery Strategy for the Least Bittern (*Ixobrychus exilis*) in Ontario. Ontario Recovery Strategy Series. Prepared by the Ontario Ministry of Natural Resources and Forestry, Peterborough, Ontario. v + 5 pp. + Appendix.

Poole, A. F., P. E. Lowther, J. P. Gibbs, F. A. Reid, and S. M. Melvin. 2024. Least Bittern (*Botaurus exilis*), version 1.1. In *Birds of the World* (A. F. Poole, M. G. Smith, and S. M. Billerman, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA.

Appendix 1: Technical summary for Ontario

Species: Least Bittern (*Botaurus exilis*)

Demographic information

Demographic attribute	Value
Generation time. Based on average age of breeding adult: age at first breeding = X year; average life span = Y years.	Approximately 3.1 years
Is there an observed, inferred, or projected continuing decline in number of mature individuals?	Unknown.
Estimated percent of continuing decline in total number of mature individuals within 5 years or 2 generations.	Unknown
Observed, estimated, inferred, or suspected percent reduction or increase in total number of mature individuals over the last 10 years or 3 generations.	Unknown
Projected or suspected percent reduction or increase in total number of mature individuals over the next 10 years or 3 generations.	Unknown
Observed, estimated, inferred, or suspected percent reduction or increase in total number of mature individuals over any 10 years, or 3 generations, over a time period including both the past and the future.	Unknown
Are the causes of the decline (a) clearly reversible, and (b) understood, and (c) ceased?	a. Partly b. Yes c. No
Are there extreme fluctuations in number of mature individuals?	No

Extent and occupancy information in Ontario

Extent and occupancy attributes	Value
Estimated extent of occurrence (EOO).	648,006 km ²
Index of area of occupancy (IAO).	6,032 km ²
Is the total population severely fragmented? i.e., is >50% of its total area of occupancy in habitat patches that are: (a) smaller than would be required to support a viable population, and (b) separated from other habitat patches by a distance larger than the species can be expected to disperse?	a. No b. No
Number of locations.	Unknown.

Extent and occupancy attributes	Value
Number of NHIC Element Occurrences	11,069 linked to EO or EO candidate
Is there an observed, inferred, or projected continuing decline in extent of occurrence?	No
Is there an observed, inferred, or projected continuing decline in index of area of occupancy?	No
Is there an observed, inferred, or projected continuing decline in number of sub-populations or EOs?	Unknown
Is there an observed, inferred, or projected continuing decline in number of locations?	No
Is there an observed, inferred, or projected continuing decline in [area, extent and/or quality] of habitat?	Yes. Observed and inferred.
Are there extreme fluctuations in number of populations?	Unknown
Are there extreme fluctuations in number of locations?	No
Are there extreme fluctuations in extent of occurrence?	No
Are there extreme fluctuations in index of area of occupancy?	No

Number of mature individuals in each sub-population or total population (if known)

Sub-population (or total population)	Number of mature individuals
Total population	Approximately 2,800

Quantitative analysis (population viability analysis conducted)

Probability of extinction in the wild is unknown.

Threats

- i. Residential and commercial development (IUCN 1) - Low
- ii. Agriculture and aquaculture (IUCN 2) - Low
- iii. Transportation and service corridors (IUCN 4) - Low
- iv. Human intrusions and disturbance (IUCN 6) - Low
- v. Natural system modifications (IUCN 7) - Low
- vi. Invasive and other problematic species and genes (IUCN 8) - Low
- vii. Pollution (IUCN 9) - Low
- viii. Climate change and severe weather (IUCN 11) - Low.

Rescue effect

Rescue effect attribute	Value
Does the broader biologically relevant geographic range for this species extend beyond Ontario?	Yes. Species has a broad geographic range outside of Ontario.
Status of outside population(s) most likely to provide immigrants to Ontario	Suspected to be generally declining.
Is immigration of individuals and/or propagules between Ontario and outside populations known or possible?	Yes. Species is highly mobile.
Would immigrants be adapted to survive in Ontario?	Yes
Is there sufficient suitable habitat for immigrants in Ontario?	Yes
Are conditions deteriorating in Ontario?	Yes, but habitat loss is suspected to have slowed.
Is the species of conservation concern in bordering jurisdictions?	Yes
Is the Ontario population considered to be a sink?	No
Is rescue from outside populations likely?	No. Potential source populations thought to be declining.

Sensitive species

Species is not considered to be data sensitive.

Acronyms

BBRGR: Broader Biological Relevant Geographic Range
COSEWIC: Committee on the Status of Endangered Wildlife in Canada
COSSARO: Committee on the Status of Species at Risk in Ontario
ESA: Endangered Species Act
EO: Element occurrence (as defined by NHIC)
EOO: extent of occurrence
GRANK: global conservation status assessments
IAO: index of area of occupancy
IUCN: International Union for Conservation of Nature and Natural Resources
MBCA: Migratory Birds Convention Act
MNR: Ministry of Natural Resources
NHIC: Natural Heritage Information Centre
NNR: Unranked
NRANK: National conservation status assessment
SARA: Species at Risk Act
SNR: unranked
SRANK: subnational conservation status assessment
S1: Critically Imperiled
S2: Imperiled
S3: Vulnerable
S4: Apparently Secure
S5: Secure
IUCN: International Union for Conservation of Nature and Natural Resources
CDSEPO: Le Comité de détermination du statut des espèces en péril en Ontario