Barrington Lake

KBA, Nova Scotia

|  |
| --- |
| Long-tubercled Spikerush (*Eleocharis tuberculosa*) |

**Instructions for Reviewers**

1. Read through the “Summary of Proposed KBA” section.
2. Read the questions after the summary and provide answers in the specified spaces.
3. Once you are done, make sure to save your work under a new file name (your answers will be lost if saving back to the original file name).
4. For additional information, see:

* [What are KBAs and how are they assessed?](http://www.kbacanada.org/wp-content/uploads/2020/09/What-are-KBAs-and-how-are-they-assessed.pdf)
* [Instructions for reviewers](http://www.kbacanada.org/wp-content/uploads/2020/09/Instructions-for-reviewers.pdf)

# Summary of Proposed KBA

*Please note that this summary has been generated automatically, and as a result there may be species scientific names that are not italicized.*

1. **KBA Name:** Barrington Lake
2. **Location (province or territory, mid-point lat/long):** Nova Scotia

, 43.614

/-65.574

1. **KBA Scope:** National
2. **Trigger Biodiversity Element(s):**

|  |  |
| --- | --- |
|  | ● Species: Long-tubercled Spikerush (*Eleocharis tuberculosa*) |

1. **Status Summary:**

Barrington Lake

qualifies as a candidate National

KBA for the following KBA criteria:

|  |  |
| --- | --- |
|  | ● A1b [criterion met by 1 species] - Site regularly holds ≥1% of the national population size AND ≥10 reproductive units of a Vulnerable species. |
|  | ● B1 [criterion met by 1 species] - Site regularly holds ≥10% of the national population size AND ≥10 reproductive units of a geographically-restricted species. |

1. **Site Description:**

Barrington Lake is a medium-sized lake along the Barrington River in southwestern Nova Scotia. Tubercled Spike-rush occurs in open peaty/sandy substrate and floating peat mat habitat along in the shoreline of the lake which experiences regular disturbances from flooding and ice scour (COSEWIC, 2010). The lake has large boggy bays in the north and southern shore near the inflow and outflow of Barrington River where the bulk of the Tubercled Spike-rush population occurs.
Barrington Lake is located in the Western ecoregion of Nova scotia within the Sable ecodistrict. This ecodistrict is known for an abundance bogs and other wetlands, having the highest concentration of peatlands in the province (Neily et. al., 2017). The surrounding upland forest is composed of fir, spruce and red maple (Service Nova Scotia Provincial Landscape Viewer [accessed June 2020]). The shoreline Great Pubnico Lake is mostly undeveloped, but the lake has multiple access points for both road and off-road vehicles (COSEWIC, 2010). About 20% of the terrestrial lake frontage where Tubercled Spike-rush occurs is on Barrington Lake provincially owned, but the lakeshore has some development from cottage lots (COSEWIC, 2010).
There are observations of the nationally rare moss Sphagnum trinitense from a boggy meadow in the southern end of the lake near its outflow (AC CDC database, 2020). In Canada, Sphagnum trinitense is known only from Nova Scotia in lakeshore habitat at three lakes in southwestern Nova Scotia (NatureServe Explorer, 2020; AC CDC database, 2020).
For references see: BarringtonLakeKBAProposal\_supplement.docx

1. **Assessment Details - KBA Trigger Species:**

| **Species** | **Status** | **Criteria Met** | **# of Reproductive Units** | **Assessment Parameter** |  | **Site Estimate** | | | |  | **National Estimate** | | | **% of National Pop. at Site** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Min | Best | Max | Year | Min | Best | Max |
| *Eleocharis tuberculosa* | N2 (NatureServe) | A1b; B1 | 101 | Number of mature individuals |  | 150000 | 1750002 | 200000 | 2008 |  | 250000 | 2750003 | 300000 | 63.6 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1Based on counts of population data (number of clumps) from Atlantic Canada Conservation Data Centre observation database, this species exceeds the minimum number of RUs needed to qualify for the threshold criteria. | | | | | | | | | | | | | | |
| 2COSEWIC, 2010. COSEWIC assessment and status report on the Tubercled Spike-rush Eleocharis tuberculosa in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 28 pp. Note: population estimate is based on 'clumps' which are a suitable index for number of mature individuals. | | | | | | | | | | | | | | |
| 3National minimum and maximum estimates are given in COSEWIC, 2010. COSEWIC assessment and status report on the Tubercled Spike-rush Eleocharis tuberculosa in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 28 pp. Note: population estimate is based on 'clumps' which are a suitable index for number of mature individuals. | | | | | | | | | | | | | | |

1. **Assessment Details – KBA Trigger Ecosystems:** None
2. **Delineation Rationale:**

Boundary is derived from a 5m vertical buffer of the lake polygon, using an Enhanced Digital Elevation Model (DP ME 55, Version 2, 2006) for the province of Nova Scotia. The vertical buffer was trimmed at a 300m horizontal distance from the lakeshore.

1. **Additional Site Information:**

|  |  |
| --- | --- |
| **Rationale for site nomination** | Barrington Lake hosts the largest population of Tubercled Spike-rush in Canada (COSWEIC, 2010). Tubercled Spike-rush is a tall perennial sedge whose Canadian distribution is limited to six lakes in southwestern Nova Scotia. Its’ main global range is along the coastal plain of the United States, from Maine to Texas (COSEWIC, 2010). The disjunct populations of Tubercled Spike-rush in southwestern Nova Scotia are part a group of unrelated plants referred to as Atlantic Coastal Plain Flora, that are rare or unknown elsewhere in Canada. Due to the large distance between the Nova Scotia populations and the closest population in the US, there is low chance for immigration if the Canadian population is lost. For references see: BarringtonLakeKBAProposal\_supplement.docx |
| **Biodiversity elements that were assessed but did not meet KBA criteria** | *-* |
| **Other significant biodiversity elements** | A peatmoss (Sphagnum trinitense, G4, N1N2) |
| **Percent of site covered by protected areas** | 0% - completely unprotected |
| **Customary jurisdiction at site** | - |
| **Ongoing conservation actions** | Legislation |
| **Ongoing threats** | Human intrusions & disturbance; Residential & commercial development |
| **Additional conservation actions needed** | Site/area protection |

**Questions for Reviewers**

If you run out of space for any of your answers to questions 5-11, please expand the text box by clicking it and then pulling the bottom border downwards.

*Required information for review completion:*

1. Name 

2. Email address 

3. Phone number (optional) 

4. I understand and agree that my name and contact information may be provided to additional reviewers indicating that I provided a technical review of this KBA





5. Are the global values (or national, for national-scale KBAs) used in the threshold calculation accurate and adequately documented?





*Additional comments*

6. Are the site-level estimates for each assessment parameter accurate and adequately documented?







7. Is it reasonable to assume that the KBA trigger element (species or ecosystem) is present at the site and has been correctly identified?







8. Is the proposed KBA boundary appropriate and at a useful scale to focus conservation efforts?







9. If they have been provided, are the mapped distributions of the biodiversity elements realistic?







*Additional information for review:*

10. If you are familiar with the site, please comment on the site description and provide any other information that may help its documentation and conservation, including about:

* ongoing conservation actions being applied to the site
* conservation actions needed at the site
* additional biodiversity elements at the site
* relevant information about customary jurisdiction(s) of the site (i.e. traditional territories, landowners, etc.)
* threats to the persistence of biodiversity at the site (pertaining to the trigger species or in general)



11. Any other comments?

