

# BIODIVERSITY ASSESSMENT

## STATEMENT

The original assessment conducted in 2019 served as the base for the 2023 assessment. It was used as a starting point to reevaluate the biodiversity of endangered and vulnerable species on property owned or managed by NSCC.

## METHODOLOGY

Assessments of the three campuses were completed throughout the spring, summer and fall months of 2019. The assessments included general surveying, photo documentation, nature walks, and observations. Wildlife observations have been recorded and cross-checked using the IUCN Red List of Threatened Species to determine their global vulnerability and the Atlantic Canada Conservation Data Centre (AC CDC) to determine their provincial vulnerability.

All species identified during the original assessment were verified to be present in 2023, and some new ones were identified and added. Their statuses were updated using the IUCN Red List of Threatened Species and the AC CDC.

Regular monitoring is done by facilities staff to ensure protected boxes and gardens on campus remain undisturbed. Additionally, at the Strait Area Campus, specifically the Natural Resources Environmental Technology Diploma program, students and faculty monitor and manage the site, keeping track of any vulnerable animal species that frequent the area.

## VULNERABLE SPECIES LIST (BY CAMPUS)

### AKERLEY

- Monarchs (*Danaus plexippus*)- endangered
- Evening grosbeak (*Coccothraustes vespertinus*)- vulnerable
- Honeybees (beekeeping)
- Wide range of local birds spotted on and near the campus (sparrows, ducks, cardinals, etc.)- least concern

### AVC

- Barn swallow (*Hirundo rustica*) – endangered
- Monarch (*Danaus plexippus*) – endangered
- Beaver (*Castor canadensis*) - least concern
- Deer (*Odocoileus virginianus*) - least concern
- Osprey (*pandion haliaetus*) - least concern

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Last updated: March 9, 2023

Martha MacGowan, CET

- Great Blue Heron (*Ardea herodias*) - least concern
- Wood ducks (*Aix sponsa*)- least concern
- Variety of mason bee species

### SAC

- Canada lynx (*Lynx canadensis*) (near and around campus)- endangered
- Bald eagle (*Haliaeetus leucocephalus*)- least concern
- Red-tailed hawk (*Buteo jamaicensis*)- least concern
- Blue Jays (*Cyanocitta cristata*)- least concern
- Black-capped Chickadee (*Poecile atricapillus*)- least concern
- Red Squirrel (*Tamiasciurus hudsonicus*)- least concern
- White-tailed deer (*Odocoileus virginianus*)- least concern
- Red fox (*Vulpes vulpes*)- least concern
- Bobcats (*Lynx rufus*)- least concern
- Snowshoe hare (*Lepus americanus*)- least concern
- Wood duck (*Aix sponsa*)- least concern
- Moose (*Alces alces*)(at least one spotted)- least concern
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### SCOPE OF ASSESSMENT

At the Akerley campus, the assessment included all areas within the institutional boundary, including gardens and the site managed by the beekeeping program. Outside the institutional boundary, a small brook at the back of the lot was also assessed for threatened species. At the Annapolis Valley Campus, two sites were included in the assessment: the Middleton and Lawrencetown sites. The review had all areas within the institutional boundary at these sites, primarily grassy and a small brook at the Middleton site. The Strait Area Campus site was also assessed and included grassy areas and a large woodlot on the backside of the site used for academic programming.

### PROTECTIVE PLAN

#### AKERLEY

Several programs are in place at this campus to assist endangered species and promote native species growth. A garden of swamp milkweed (*Asclepias incarnata*) has been planted to support monarch butterflies. Monarchs have been spotted in this garden since it was initially produced.

The campus has a beekeeping program, where staff manage a series of hives to promote the honeybee population.

As part of the NSCC culinary program, a kitchen garden has been planted on campus and continues to expand yearly. The garden produces herbs and vegetables that are used in the culinary program. This garden has also attracted bee species.

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### ANNAPOLIS VALLEY

For many years now, the swamp milkweed gardens planted at the Annapolis Valley Campus have proven to be a success, where monarchs have been observed in the gardens. In addition to these gardens, native plants have been planted on campus to support other local butterfly and bee species. Mason bee houses have also been placed in the gardens to help various mason bee species.

Tall structures are in place at this campus to serve as nesting locations for ospreys. This is to help protect the ospreys from the electrical wires in the area.

Swallow boxes have also been installed on campus to support the endangered barn swallows. Barn swallows have been spotted on campus near the boxes since they were installed. Bats have yet to be observed on campus. However, bat boxes are installed on-site to support the declining little brown myotis population.

Wood duck boxes have been installed at the Middleton campus to support the declining populations from overhunting in the area.

Beavers have been spotted in and around a small brook located on-site, and facilities staff ensure that the brook is well maintained and that the beavers remain undisturbed.

### STRAIT AREA

At the Strait Area Campus, the Natural Resources Environmental Technology Diploma program students and faculty monitor the campus and manage the woodlot on site to protect the forested area and wildlife.