Queen's University Biological Station Species List: Adder's-tongues, Grapeferns and Moonworts

The current list has been compiled by Dr. Ivy Schoepf, <u>QUBS Research Coordinator</u>, in 2018 and includes data gathered by direct observation, collected by researchers at the station and/or assembled using digital distribution maps. The list has been put together using resources from <u>The Natural Heritage Information Centre</u> (April 2018); <u>The IUCN Red List of Threatened Species</u> (February 2018); <u>iNaturalist and GBIF</u>. Contact <u>Ivy</u> to report any errors, omissions and/or new sightings. Because vascular plants (phylum: Tracheophyta) comprise an incredibly diverse phylum, which includes thousands of species, to help the reader navigate their staggering diversity, I have broken it down into several class-based sub-lists. The current list is, therefore, not comprehensive and focuses only on a subset of vascular plants, that of the Adder's-tongues, Grapeferns and Moonworts. If you wish to find information regarding ferns, horsetails, clubmosses & firmosses, conifers and flowering plants, please consult their very own lists published on <u>our website</u>.

Based on the aforementioned criteria we can expect to find 10 species of adder's-tongues, grapeferns and moonworts (class: Psilotopsida) present at QUBS. All species are considered QUBS residents. Species are reported using their full taxonomy; common name and status, based on whether the species is of global or provincial concern (see Table 1 for details).

 Table 1. Status classification reported for the adder's-tongues, grapeferns and moonworts of QUBS.
 Global status based on IUCN Red List of Threatened Species rankings. Provincial status based on Ontario Natural Heritage Information Centre SRank.

Global Status	Provincial Status		
Extinct (EX)	Presumed Extirpated (SX)		
Extinct in the Wild (EW)	Possibly Extirpated (SH)		
Critically Endangered (CR)	Critically Imperiled (S1)		
Endangered (EN)	Imperiled (S2)		
Vulnerable (Vu)	Vulnerable (S3)		
Near Threatened (NT)	Apparently Secure (S4)		
Least Concern (LC)	Secure (S5)		
Data Deficient (DD)	Unrankable - insufficient information (SU)		
Not Evaluated (NE)	Unranked - not yet assessed (SNR)		
	Conservation Status Rank Not Applicable (SNA)		

Order	Family	Scientific Name	Common Name	Global Status	Provincial Status
Ophioglossales Ophioglossaceae		Botrychium lanceolatum	Lance-leaf Moonwort	NE	S 3
	Botrychium matricariifolium	Matricary Grape-Fern	NE	S4	
	Botrychium minganense	Mingan Moonwort	LC	S4	
	Botrychium simplex	Swamp Moonwort	NE	SU	
	Botrypus virginianus	Rattlesnake Fern	NE	S5	
	Ophioglossaceae	Ophioglossum pusillum	Northern Adder's-tongue	NE	S4
	Sceptridium dissectum	Cut-leaved Grape-Fern	NE	S4	
	Sceptridium multifidum	Leathery Grape-Fern	NE	S5	
		Sceptridium oneidense	Blunt-lobed Grape-Fern	NE	S 3
		Sceptridium rugulosum	St. Lawrence Grape-Fern	NE	<mark>S2</mark>