## **Queen's University Biological Station Species List: Liverworts and Stoneworts**

The current list has been compiled by Dr. Ivy Schoepf, QUBS Research Coordinator, 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 The Natural Heritage Information Centre (April 2018); The IUCN Red List of Threatened Species (February 2018); iNaturalist and GBIF. Contact Ivy to report any errors, omissions and/or new sightings.

Based on the aforementioned criteria we can expect to find 11 liverwort and two stonewort (phylum: Charophyta) species 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).



**Figure 1**. QUBS protect a few species of liverworts and stoneworts. While liverworts are often overlooked in favour of other plants, they are remarkably hardy and occur globally in a wide range of habitats, including the Arctic and in deserts. Photo courtesy of <a href="Dr. Grég Bulté">Dr. Grég Bulté</a>.

**Table 1. Status classification reported for the liverworts and stoneworts 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)			
<b>Endangered (EN)</b>	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)			

Phylum	Class	Order	Family	Scientific Name	Common Name	Global Status	Provincial Status
Charophyta	Charophyceae	Charales	Characeae	Chara contraria	Opposite Stonewort	NE	SNR
				Chara globularis	Fragile Stonewort	NE	SNR
Jungermannio		Jungermanniales	Anastrophyllaceae	Barbilophozia barbata	Bearded Pawwort	NE	S4
			Harpanthaceae	Harpanthus drummondii	Drummond's Crestwort	NE	S3
			Ptilidiaceae	Ptilidium pulcherrimum	Tree Fringewort	NE	S5
	Jungermanniopsida	Porellales	Frullaniaceae	Frullania eboracensis	New York Scalewort	NE	S5
			Porellaceae	Porella platyphylla	Wall Scalewort	NE	S4
Marchantiophyta	Marchantiophyta  Marchantiopsida		Radulaceae	Radula complanata	Flat-leaved Scalewort	NE	S4
		Marchantiales	Conocephalaceae	Conocephalum salebrosum	Snakewort	NE	S5
			Marchantiaceae	Marchantia polymorpha	Common Liverwort	NE	S5
			Rebouliaceae	Mannia fragrans	Fragrant Macewort	NE	S3
			Ricciaceae	Riccia fluitans	Floating Crystalwort	NE	S5
				Ricciocarpos natans	Fringed Heartwort	NE	S5