**Grand Portage National Monument**

National Park Service
U.S. Department of the Interior

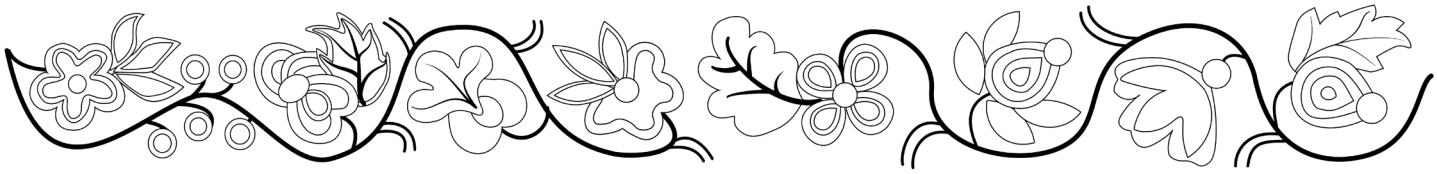
170 Mile Creek Road
Grand Portage, MN 55605

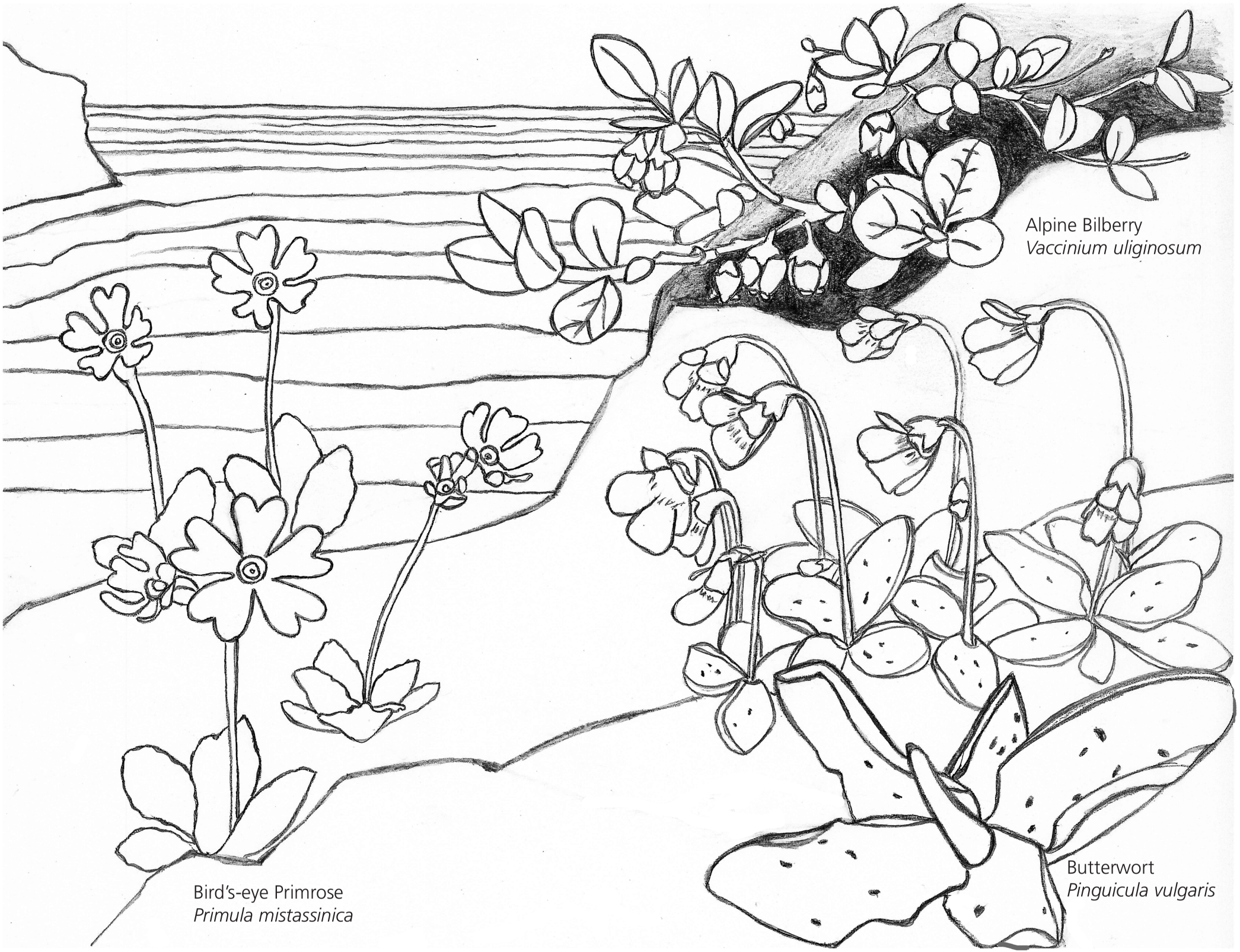
# Remnants of a Colder World

The most recent Ice Age ended 10,000-12,000 years ago. As glaciers receded, plants that could grow in harsh conditions started to appear on the newly exposed ground. Some of them still exist in pockets along Lake Superior's North Shore today!

Lake temperatures keep the shore cool, and ice scraping prevents other plants from growing, so these "arctic relicts or disjuncts" remain. They survive on very little soil in crevices in the cliffs, the same cliffs that give this area its stunning beauty. This shoreline came from lava flows about a billion years ago and is made of minerals favorable to these wildflowers. They are called relicts or holdovers because they survived from an earlier time, and disjuncts because the rest of their population is far away in the subarctic where conditions are similar. What could happen if Lake Superior temperatures continue to rise and no longer chill the air along the shore?

Fun fact: one of these, Butterwort, supplements scant soil by being carnivorous. Its leaves are sticky enough to trap, dissolve, and absorb small insects.




Alpine Bilberry
*Vaccinium uliginosum*
Bird's-eye Primrose
*Primula mistassinica*
Butterwort
*Pinguicula vulgaris*