The exposed soil along the University of British Columbia (UBC) Point Grey Cliffs are at risk of eroding due to rising tide levels and heavy precipitation, endangering personnel and infrastructure that occupy its vicinity. To inform a climate adaptation cliff erosion strategy, we conducted an ecological survey of the cliffs to document species composition and structure, and to indicate valuable plant species with respect to ecosystem properties, particularly slope stabilization. Data on canopy and understory species composition and densities were collected along five transects oriented perpendicular to the shoreline, running from the beach to the cliff tops. Woody species were identified, diameter breast height (dbh) measured, and stems mapped in up to five, 10 m x 15 m plots per transect. Percent cover of understory vegetation was measured in two, 2.5 m x 2.5 m plots within each larger plot. Presence of any species sited along the transects was recorded, along with slope angle and GPS location for each plot. On steeper slopes (gradients ≥30°), Acer macrophyllum (Big-Leaf Maple) was found to be the most common canopy species (51.3%) and Polystichum munitum (Sword Fern) was the most common understory species (20.7%). These may be effective candidates to stabilize the Point Grey Cliffs. Invasive species such as English holly were prevalent and may require management action to assist native species regeneration. This study adds to the literature on the role of flora as soil stabilizers and may inform future studies on erosion and the role of vegetation in similar environments.

Themes:
Check (highlight) the most applicable theme according to the abstract.

| Innovation and Technology | Health and Wellness | Culture and Society | Sustainability and Conservation |

Comments: This is a great abstract.