

**SESSION: Biodiversity / Botany****MARS Themes:**

Ecosystems, biodiversity and biodiscovery

**Title:**

Examining the potential for entomophilous pollination on sub-Antarctic Marion Island

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**Abstract:**

Pollination interactions have received attention worldwide, but to a lesser extent in the sub-Antarctic, mainly due to the assumption that sub-Antarctic plants employ anemophily or self-pollination. This region is unique in terms of climate and geographic isolation, providing a novel environment to study plant-invertebrate interactions. The objective of this study was to document the richness and abundance of invertebrate species visiting flowering species; aiming to determine (1) the potential for invertebrate-mediated pollination, and (2) the relationship between invertebrate activity on flowers and climatic conditions. Consequently, this study was conducted at Marion Island over two flowering seasons. Weather data was collected and invertebrate richness and abundance were recorded through 10-minute observations of focal plant species. The interaction network shows 28 invertebrate taxa interacting with 11 plant species. However, when invertebrates were examined, pollen was only detected on 21 of the taxa. This interaction network had a high level of generalization, with multiple invertebrate species interacting with multiple plant species. The abundance and richness of invertebrates on flowering species were predominantly determined by plant identity, with abiotic factors, such as aspect, altitude and time of day, contributing weakly. Therefore, this sub-Antarctic plant-invertebrate network may be predicted to be fairly robust to direct climatic changes.

**Format:**

Recorded presentation

**Keywords:** (add ; between keywords)

Wind; Plant-insect interactions