**A rapid field sampling method for vegetation terrain modelling and satellite image classification.**

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Terrain analysis of vegetation distribution and satellite image classification generally require training data from numerous field sites. On remote subantarctic islands, where access is difficult and the opportunities for aerial photography are limited by cost and weather conditions, such data are often hard to acquire. There is an urgent need for highly accurate fine resolution mapping of Macquarie Island, one of Australia's two subantarctic territories. Vegetation patterns on the 12 785 ha island are changing rapidly, largely due to grazing by rabbits. The Australian and Tasmanian Governments have committed $25 million to eradicating all introduced vertebrates from the island. In order to assess the success of this program in restoring vegetation communities, baseline data is required across the island's extent and at a sufficiently fine resolution to capture changes in community distribution.

At present, most work on plant communities on Macquarie Island is conducted in small quadrats and along transects. In order to scale up the analysis to the whole island, we used a pole-mounted camera to photograph 5 x 5 m plots of vegetation, and compared the classifications to those resulting from previous field sampling techniques. PoleCam provides a rapid and efficient method of capturing fine resolution data in a harsh climate and remote location. These data will now be used to train image classifications and statistical terrain models of community distributions.