

AOS Research Project

The use of Google Earth imagery to identify seabird nests

Start date: 2006

End date: 2013

Masked Boobies *Sula dactylatra*, like many other species of *Sulidae*, do not construct elaborate nests. However, their nest sites produce a characteristic ‘nest signature’. We found that these nest signatures could apparently be seen in freely available satellite images (Google Earth™) of the main island of Ascension in the south Atlantic. We verified that this was the case by comparing nest signatures detected in these satellite images with field reports of occupied nests. We found the locations of these nest signatures determined from satellite images agreed closely with the coordinates of actual nests on the ground. We have used this information to determine the position and size of a previously unreported Masked Booby colony on the island. Thus, we show that the presence and abundance of some species can be estimated using freely available satellite imagery if a suitable signature in the satellite image can be found (Fig. 1).

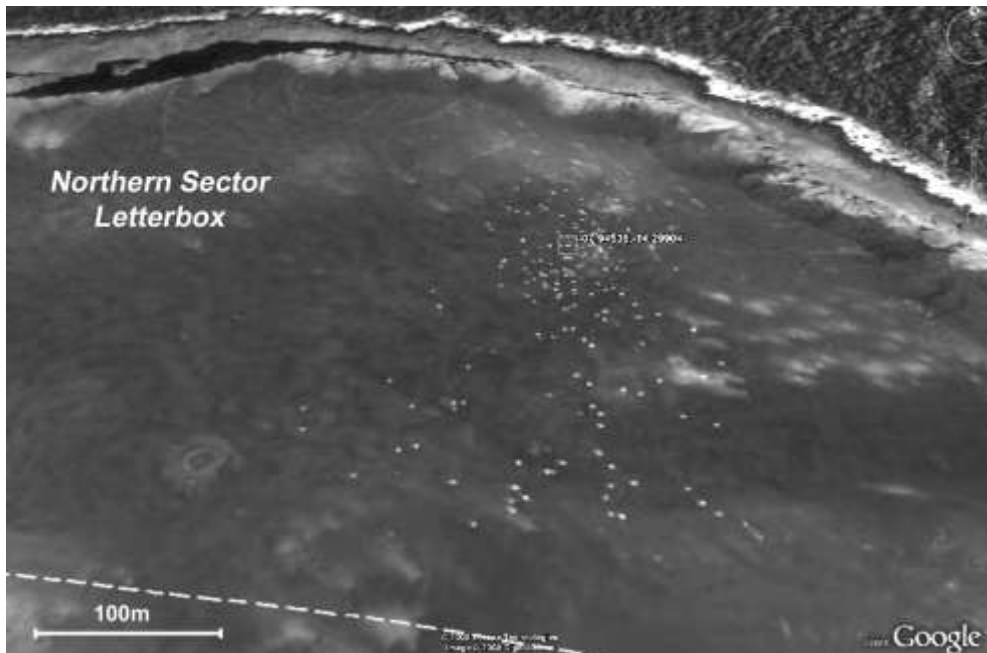


Figure 1. Google Earth™ satellite imagery taken on 24 January 2006 of Masked Booby nests close to the coastal cliffs on the northern sector of Letterbox on Ascension Island. Nests show up as white spots on the image. Readers are encouraged to view the actual image on Google Earth™ by entering the geographical coordinates -07.94536, -14.29904 (degrees and decimals of a degree) into the “Fly to” location box and zooming to an eye altitude of 500 m or less.

Current research involved searches of [Google Earth™](#) imagery for seabird nests on other islands.

References:

Hughes, B.J., Martin, G.R. & Reynolds S.J. 2011. [The use of Google Earth™ satellite imagery to detect the nests of Masked Boobies \(*Sula dactylatra*\)](#). *Wildl. Biol.* **17**: 210–216.