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參展科別 動物學

作品名稱 **Gannet Investigation: Surviving an  
Unnatural Disaster**

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## Abstract

For a unique marine bird, so magnificent and accessible to the public, the Australasian Gannet (*Morus serrator*) colony found at Cape Kidnappers, New Zealand, significantly lacks research. Knowledge of gannet behaviour and how humans could best sustain a relationship with them remains unstudied.

*M. serrator* are colonial monogamous breeders and produce a single chick each breeding season (Ismar, S.M.H. 2013). With the same mate over breeding seasons, pairs work cooperatively sharing the energy input into a single chick. Such parental care leads to highly territorial behaviour (McMeekan, C. P. & Wodzicki, K. A. 1946). This suggests more dominant gannets would claim larger territories to have a greater distance between nests of other birds, to increase the survival of their offspring. With a land-based colony this means the gannets are at risk from land and airborne predators, suggesting more dominant birds will claim territories in the central area as it offers greater safety from predator pressures (Minias, P. 2014).

It was hypothesised that birds in the centre will have a greater distance between their nests and have a smaller height compared to those around the periphery of the Plateau Colony.

The distances between nests and the heights of nests were recorded in the centre and around the periphery of the colony to determine if there was a correlation between the variables. It was found that centre nests had a greater distance between them and were of a smaller nest height when compared to those around the periphery.

Anthropogenic influences from tourism and conservation has the potential to change the evolutionary trajectory of managed populations. This colony is protected by predator control programs. Altering this significant selection pressure has the potential to change the nesting behaviour of this species. Monitoring annual nesting distribution patterns and colony numbers over time, may enable informed development of more sustainable ecotourism and protection of the colony. This investigation provides baseline data to support further research on this colony.

## 【評語】 050014

The device to help excise who obliged, assembled and demonstrated. Therefor it is an impressive work. However, it lacks of the clear demonstration how the device is helping senior citizens or handicapped people. Specific definition on the helps and demonstration should help the commercial potential. If the student in charge can have better communication skill in English, it can also help referers to know more details.