## Kārearea / NZ falcon study from Graham Parker

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The endemic Kārearea / New Zealand falcon faces a number of threats and is classed by DOC as *Threatened; Nationally* Vulnerable. In addition to native eco-systems, Kārearea also exist in conifer plantations. In that environment Kārearea may be negatively impacted by forestry harvest-site preparation, and harvesting. Other threats include depredation by introduced mammalian predators, human persecution, electrocution in uninsulated power infrastructure and potentially non-target mortality in aerial poison operations.

In the greater Dunedin area there are records from Birds NZ and others that Kārearea are present in conifer plantations, and the surrounding conservation estate. Despite the high threat classification of Kārearea, very little is known to inform the conservation management of the species in South Island conifer plantation forests, or in the South Island generally. Whilst there are clear and effective guidelines for forestry companies to use for managing Kārearea in conifer plantations, these are based entirely on Kārearea interactions with conifer plantation forestry in the central North Island, where the habitat is distinct to the South Island. Behavioural differences between Kārearea in the North Island and in the Dunedin area have also been identified that may have important implications for Kārearea nest survival in conifer plantations in the coastal Otago area.

Because there is a lack of knowledge to inform the conservation managment of Kārearea in South Island conifer forests, I have established a three year project with the aim of collecting the key information needed for managment of Kārearea in eastern Otago. These are population and nest survival estimates, and investigating mitigation options to increase nest survival (if required). In addition the study aims to establish a banded population from which adult survival rates and population trends can be estimated in time.

In addition to Birds NZ, funding for the project has been given by City Forests, Wenita Forestry Products, Otago Regional Council and Dunedin City Council. Kāti Huirapa Rūnaka ki Puketeraki and Tē Rūnanga te Otākou are supportive of the work also.