

Hōiho Fledgling Dispersal Study

The Nationally Vulnerable hōiho, otherwise known as yellow-eyed penguin, is restricted to the Southern South Island, Stewart Island and sub-Antarctic Islands of New Zealand. In recent years, large numbers of hōiho chicks have been underweight and removed from their nests for supplementary feeding at DOC-approved rehabilitation centres. This is to improve adult survival in years of poor food supply and to prevent chick mortality. There are no rehabilitation centres in the Catlins, therefore underweight chicks that are captured in the Catlins are rehabilitated and released on the Otago Peninsula. Healthy fledglings naturally disperse north along the Otago and Canterbury coast in their juvenile year, but c. 84% return to near their area of birth to breed from 2 years of age. For supplementary-fed chicks, the impact of 'hard-release' (direct release to the wild) and 'soft-release' (gradual release to the wild) on their dispersal behaviour is unknown. The soft-release method allows chicks to bond with a breeding site and local adult birds, and decreases the likelihood they will return in a weak state shortly after leaving the nest.

This study will investigate the dispersal mechanisms of supplementary-fed chicks away from their release site, and aims to identify important at-sea areas for juvenile yellow-eyed penguins. Tracking devices attached to the fledglings will produce baseline information about juvenile dispersal (at present there is no data), with a particular emphasis on how supplementary-fed chicks disperse in the marine environment. As there is no current data on the at sea movements of fledglings this data may help determine overlapping marine threats and help in planning marine reserves. The dispersal study is part of a larger Honours project to determine the effectiveness of supplementary feeding on yellow-eyed penguin chicks and subsequent parental survival, based on analysis of existing data.

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