

DNA confirms existence of NZ bird thought extinct

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New Zealand Storm-petrel. Credit: Brent Stephenson

(PhysOrg.com) -- An examination of ancient and modern DNA by the University of Otago has confirmed that the New Zealand storm-petrel, once thought to be extinct, is a bird which continues to fly our southern skies.

University of Otago Senior Lecturer in Zoology Dr Bruce Robertson, who led the study, says the research confirms that the storm petrel is a "distinct species" of seabird, rather than an extinct plumage variant or subspecies, and hence is worthy of a species recovery programme.

The exciting find has been just published on-line in the journal *Molecular Phylogenetics and Evolution*.



The authors, Dr. Robertson, Dr. Brent Stephenson of Eco-Vista, and Dr. Sharyn Goldstien of Canterbury University, used DNA methods to confirm conclusively this finding using DNA samples from museum skins and birds recently captured, since the first bird thought to be the extinct storm petrel flew into the wheelhouse of a fishing vessel operating in the Hauraki Gulf in 2003.

Scientists had evidence of the existence of a NZ storm-petrel with three museum skins collected in the 1800s and held by the museums in England and France. Using ancient <u>DNA</u> sequencing, samples from two of the 150-year-old skins were tested and matched against blood samples from living birds.

"We found they were one and the same, and these <u>birds</u> are a distinct species of storm-petrel," he says.

"Since 2003, researchers had largely accepted that the bird was the NZ storm-petrel, but until we had taxonomic certainty, the conservation effort to protect the bird was paralysed; there was always going to be this controversy because no one knew exactly what the museum skins were.

"Hopefully now the NZ Storm-Petrel will be given a conservation priority that would be given to a nationally endangered species. This will help us to fund further study of the bird, such as where it breeds."

Dr. Robertson adds that once scientists have more information, they can better direct conservation efforts and begin a species recovery program.

The four-year study, which started in 2006, was also funded by the Department of <u>Conservation</u> and the National Geographic Fund.

Provided by University of Otago



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