

 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p>Fourth Meeting of the Population and Conservation Status Working Group <i>Wellington, New Zealand, 7 – 8 September 2017</i></p> <p>Developing a climate adaption strategy for vulnerable seabirds based on prioritisation of intervention options</p> <p><i>Rachael A Alderman, Alistair J Hobday</i></p>
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SUMMARY

Conservation of marine species typically focuses on monitoring and mitigating demonstrated stressors where possible. Evidence is accumulating that some species will be negatively affected in the future by climate change and that reduction of existing stressors may not be sufficient to offset these impacts. Recent work suggests the shy albatross (*Thalassarche cauta*) will be adversely affected by projected changes in environmental conditions under plausible climate change scenarios. Furthermore, modelling shows that elimination of the principal present-day threat to albatrosses, fisheries bycatch, an achievable and critical priority, may not be sufficient to reverse projected population declines due to climate impacts, which cannot be directly eliminated. Here, a case study is presented in which a range of intervention options, in preparation for predicted climate change impacts, are identified and evaluated. A suite of 24 plausible climate adaptation options is first assessed using a semi-quantitative cost–benefit–risk tool, leading to a relative ranking of actions. Of these options, increasing chick survival via reduction of disease prevalence through control of vectors was selected for field trials. Avian insecticide was applied to chicks' mid-way through their development and the effect on subsequent survival was evaluated. Survival of treated chicks after six weeks was significantly higher (92.7%) than those in control areas (82.1%). This approach shows that options to enhance albatross populations exist and we argue that testing interventions prior to serious impacts can formalise institutional processes and allow refinement of actions that offer some chance of mitigating the impacts of climate change on iconic marine species.

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