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The demographic response of two Albatross populations to environmental variability

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Habitat preference and population characteristics of the Grey Wagtail (*Motacilla cinerea tunstall*) in the Nature Park Medvednica, Croatia

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During April 2005 all breeding pairs of Grey Wagtails were counted and registered on 16 major streams in the Medvednica Nature Park. The method included waterway survey and noting down all breeding pairs on topographic maps (1:25,000). Altitude, slope and length of the reaches surveyed were also calculated from the maps. Supplementary habitat research was carried out at 20 locations with breeding pairs and at 20 locations without Grey Wagtails. The purposes of this research were to measure waterway dimensions, estimate the density and cover of the riparian vegetation and estimate human impact on these locations. In the Medvednica Nature Park, 75 pairs of Grey Wagtail bred on 16 streams with an average density of 7.6 pairs per 10 km, which is positively correlated with stream slope. There was a difference in the density and cover of the riparian vegetation between the breeding locations and those without Grey Wagtails. Differences were also recorded in relation to human impact at these locations, being higher at the breeding sites.

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The demographic response of two Albatross populations to environmental variability

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It has been widely demonstrated that environmental fluctuations have some strong repercussions on populations. The amplitude as well as the predictability of the resources in the environment may contribute to local adaptations. In term of population dynamics, the impact of such perturbation was supposed to be balanced between different demographic traits in order to maximise population growth rate. The traits most strongly related to fitness should be those that are most preserved against external forces. According to the demographic strategy, the nature of the response may differ between species and populations. The aim of this study was to compare the demographic response of two Black-Browed Albatross *Thalassarche melanophris* populations from the Kerguelen Archipelago and South Georgia to environmental fluctuations. They inhabit different regions characterised by highly contrasted ecosystems. In addition, previous findings suggested differences in the life histories of these populations, the one from South Georgia presenting an even more long-lived strategy. Using long-term capture mark recapture data, we consider whether it is possible to obtain different responses to environmental variability, as predicted by their respective demographic strategy, and what could be the consequences on the population dynamics.