POSTERS

Title: Using climate change models to inform faunal restoration: a case study for the critically endangered Western Ground Parrot

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Theme: responses

Once relatively common throughout much of south-western Australia, the ground dwelling western ground parrot, *Pezoporus flaviventris,* has declined to one small known population, estimated to number less than 150 individuals, and is listed as critically endangered under IUCN criteria. Major reasons for this decline include changed fire regimes, predation by introduced species, predominantly the feral cat *Felis catus*, and past habitat clearance. A recent assessment of threats and prioritisation of management actions highlighted the need to establish a second wild population, but the extent to which a rapidly changing climate has, and will, impact on this species has hitherto been a subject of conjecture. A clear understanding of geographic patterns in future climate change is required before potential re-introduction sites can be prioritised for suitability, and the use of high resolution species distribution models can be used to inform this process. We have developed a series of models using multiple algorithms and highest performance climate models to predict areas that would remain most suitable over coming decades. The resultant broad-scale ranking of different parts of the historical and potential range provides a framework within which the recovery team can make recommendations about where to focus on assessing and selecting actual sites that may be suitable for translocation.