

Two subspecies of the Grey Grasswren occupy terminal swamps of separate inland rivers, *Amytornis barbatus barbatus* on the Bulloo River and *A. b. diamantina* in Goyder Lagoon on the Diamantina. There have been sporadic reports from three other discrete areas; the Eyre Creek, Diamantina River and Cooper Creek floodplains. In a survey of those outlying populations, Grey Grasswrens were sparsely and unevenly distributed, being found at eleven localities (including one within 20 kilometres of Goyder Lagoon) but undetected at 16 where they had been observed previously, in some cases over several years. All five populations appear to be isolated from one another by distances of between 50 and 150 kilometres over which suitable habitat appears to be absent. Grasswrens from Eyre Creek belong to the same subspecies as those in Goyder Lagoon where Eyre Creek terminates, suggesting that in relatively recent times those two populations at least have been in reproductive contact, but the subspecific status of the other two outlying populations remains unknown. Our findings indicate that the outlying populations are small and that one or more might be declining towards local extinction. On the other hand we infer that Grey Grasswrens may be more able to disperse during exceptional seasonal conditions than is widely assumed to apply to grasswren species. Factors that might explain why the outlying populations are small and/or declining are discussed.