

Abstract Template

Restore it and they will come? Hydrology and waterbirds in the Lake Warden wetlands.

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Abstract paragraph:

Prior to the late 1990s, Lake Warden was a shallow coastal salt lake that frequently dried and that supported a high diversity of shorebirds, sometimes in high numbers (e.g. up to 10000 banded stilt). The importance of the Lake Warden wetland system to waterbirds led to its listing as a 'Wetland of International Importance' under the Ramsar Treaty in 1990 and contributed to its selection as one of the first Natural Diversity Recovery Catchments in 1996. During the 1990s depth at Lake Warden and the associated central suite of wetlands (Wheatfield to Windabout) began to rise as a result of increased runoff from agricultural land so that since 2000 depths have been consistently between about 1.5 and 2.5 m. This has resulted in greatly reduced shorebird habitat and a dramatic decline in shorebird richness and abundance.

Dealing with this waterlogging issue has been a priority of the Lake Warden NDRC Recovery Team, resulting in the design of a drainage system to reduce water levels in these wetlands, based on models relating water depth to waterbird habitat. The operation of a gravity-fed pipeline to drain water from Lake Wheatfield into Bandy Creek commenced in autumn 2009 and water levels in the central suite and in Lake Warden have declined significantly over this time. This has recreated physical habitat for shorebirds.

This presentation uses data collected in the early 1980s by Birds Australia and since 2006 by the Department of Environment and Conservation to show how waterbird usage of Lake Warden and the central suite wetlands has responded to these changes in hydrology. We will also discuss some of the other factors that may be influencing recovery of shorebird communities at these wetlands.

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