

The wetting and drying regime of a terminal flood plain–wetland system: implications for waterbird habitat

SCOTT C. RAYBURG & MARTIN THOMS

Riverine Landscapes Research Laboratory, University of Canberra, Australian Capital Territory 2601, Australia
martin.thoms@canberra.edu.au

Abstract Suitable habitat is essential for successful colonial waterbird breeding in ephemeral wetlands located throughout inland Australia. Two important habitat requirements for waterbirds are an inundated area of sufficient depth and of suitable duration for breeding, and a sufficient inundated area of shallow water from which they can feed. We investigated the influence of a variable wetting and drying regime on these habitat requirements, and related them to known waterbird breeding events in the Narran Lakes, Australia. The complexity of the Narran lakes ecosystem, with its different wetland components, makes it an ideal site for the provision of these habitat conditions. As a collective, they provide the essential breeding and feeding habitats for sufficient durations to enable breeding to occur. This spatial complementarity of habitat is fundamental to the importance of the Narran flood plain–wetland complex as a waterbird refuge. Habitat complexity within this system is capitalised on by waterbirds and must be recognised in water management plans.

Key words Narran lakes ecosystem; aquatic habitat; waterbird breeding; habitat complexity; spatial complementarity; dryland wetlands