



Above
Plumed whistling duck (*Dendrocygna eytoni*)
in the Gwydir

Waterbirds in the Gwydir

To the west of Moree the land gets flat, very flat. So flat that the Gwydir River disperses into several channels and flow paths, forming the Gwydir wetlands. These wetlands support some of the largest breeding colonies of waterbirds in Australia and include areas that are listed as Wetlands of International Importance (Ramsar convention).

How many birds? During our time monitoring the area we have counted 30,000 waterbirds, including 94 different species. Several of these species (such as brolga, black-necked stork, magpie goose and australasian bittern) are listed under State, Federal and International conservation agreements and legislation. This highlights how important the Gwydir wetlands are for threatened, endangered and migratory waterbirds seeking a refuge to feed and breed.

The Gwydir wetlands are critically important as they support diverse bird life even during dry periods like the last 3 years. Environmental water can be delivered to the core wetlands and keep them healthy even when other areas of NSW are dry. This helps to return the system to a more natural wetting regime and in turn helps the native plants and animals, including the spectacular birds.



Figure 1. Pair of Nankeen night heron
(*Nycticorax caledonicus*)



Figure 2. Sharp-tailed Sandpiper (*Calidris acuminata*)

Our team has been monitoring water birds in the Gwydir wetlands since 2014. Our key observation: when we see plenty of water, we see plenty of waterbirds. To clarify, we see the peak in waterbird abundance, species richness, diversity and density when the Gwydir has a substantial rainfall and/or environmental flow event.

Waterbirds in a wetland is a great indicator that the system is in relatively good health. They rely on the water, that allows the small bugs to grow, that allows the bigger bugs to grow and then the larger animals like birds, frogs and fish can thrive. This is a big part of the reason we are committed to researching waterbirds and identifying the ecological factors, such as environmental flow, driving their occurrence and behaviour in the Gwydir wetlands.

Gwydir MER
Monitoring Evaluation Research

For more on MER check out:
<https://www.environment.gov.au/water/cewo/monitoring/mer-program>



Commonwealth Environmental Water Office