

# Australasian Bittern in WA



Photograph: Peter O'Connell

## The Australasian Bittern

The Australasian Bittern (*Botaurus poiciloptilus*) is a large (66-67 cm), stocky, thick-necked heron with mottled buff-and-brown plumage. It mostly occurs singly or in pairs, usually within beds of reeds, rushes or sedges in freshwater wetlands. With its cryptic plumage, it is heard more often than it is seen.

## The Project

Since 2007 BirdLife Western Australia (formerly Birds Australia and Bird Observation and Conservation Australia) and the Department of Environment and Conservation have been learning more about the Australasian Bittern in order to improve its conservation status. Generous funding from Lotterywest has assisted this process.

## Results

### Bittern surveys

More than 105 wetlands in southwest Australia have been surveyed for Australasian Bittern by more than 130 volunteers. Australasian Bittern has been found in 29 wetlands during the past five years. Data show that there have been losses in wetland habitat since the 1980s and a range contraction in the north and east that appears to be related to habitat loss.

### Wetlands with Australasian Bittern 2007-2012

Australasian Bitterns were found over a large area, as far north as Forrestdale Lake in the Perth metropolitan area and as far southeast as Cape Le Grand National Park.

Australasian Bitterns were found in the following wetlands during the study period:

**Swan Coastal Plain:** Benger Swamp, Forrestdale Lake, James Swamp, and Thomson's Lake.

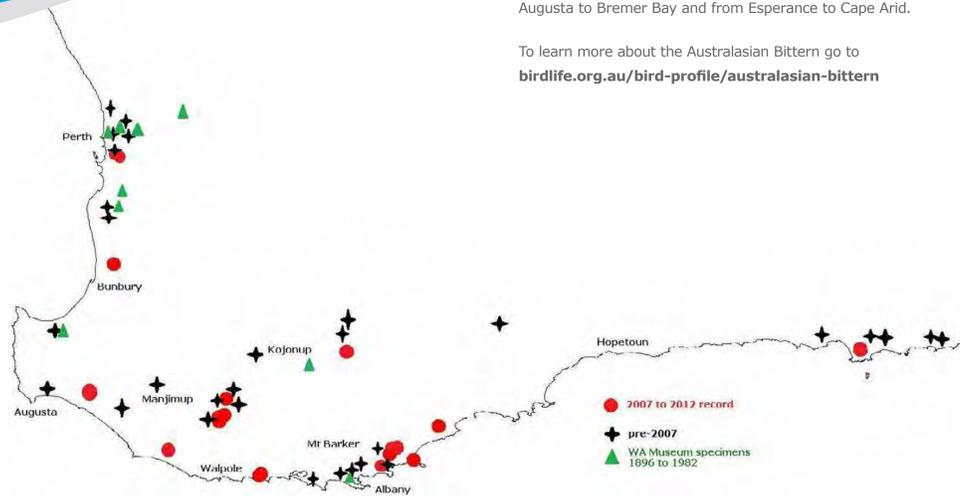
**Manjimup Area:** Byenup Lagoon, Cobertup Swamp, Geordinup West Swamp, Kulinilup Swamp, Poorginup Swamp, and Tordit Gurrup Lagoon.

**South Coast (Augusta to Bremer Bay):** Black Cat Lagoon, Boat Harbour Swamp, Cheynes Beach Road Swamp, Gingilup Swamps, Maringup Lake, Mettler Lake, Owingup Swamp, Pfeiffer Lake, Lake Pleasant View, South Sister Swamp, and Tarnup Lake.

**South Coast (Esperance to Cape Arid):** Big Boom Swamp, Dunn Rock Swamp, Frenchmans Peak unnamed wetland, and four unnamed wetlands north of Cape Le Grand National Park.

**Inland:** Katanning private property.

It is likely that Australasian Bittern is present in other suitable wetlands in the southwest Australia, especially during the non-breeding period, however the numbers are likely to be low.



## Population

The WA population was estimated in 2010 to be between 38-154 adults. The global population is fewer than 2500 mature birds. The species is listed as Endangered under the EPBC Act (1999) in Australia and globally in the IUCN Red List.

## Bittern declines

There has been a rapid loss of suitable natural habitat in WA for the Australasian Bittern over the past 30 years. It is estimated that the species has declined by 24% to 51% in WA since the 1980s.

Bittern declines in WA have mostly been a result of wetland destruction and degradation. The major reductions in wetland habitat have been from wetland infill, salinisation, groundwater use, changes to drainage and wetland acidification.

In recent years climate change has reduced water levels in wetlands and this has adversely affected bittern habitat.

Introduced species such as foxes, cats, pigs and rats are likely to predate young bitterns and eggs.

## Wetland chemistry

Chemistry data have been collated for 68 wetlands from the BirdLife database, 23 wetlands from the DEC database and a few from other sources. The data indicate that Australasian Bittern prefer very fresh and fresh wetlands and do not occur in saline or very brackish wetlands. Australasian Bittern also occur in wetlands with pH in the neutral to circumneutral range (pH 5.5 to 8.6). Data indicate that Australasian Bittern did not have preferences for other components tested such as nitrogen, phosphorous and metal concentrations.

Salinity range ppk	All wetlands sampled	Australasian Bittern present
saline 22.0	Maximum 21.8	
brackish 10.0		Maximum 7.7
fresh 3.0	Average 2.8	Average 1.9
very fresh 1.5	Minimum 0.1	Minimum 0.1

pH range	All wetlands sampled	Australasian Bittern present
alkaline 10.0	Maximum 9.7	
ANZECC guidelines 8.5		Maximum 8.6
neutral 7.0	Average 6.8	Average 6.7
circumneutral 5.5		Minimum 5.5
acid 3.5	Minimum 3.5	

## Distribution

Australasian Bitterns are found in southwest Australia, southeast Australia and New Zealand.

In WA, they are confined to the southwest in four main areas: the Swan Coastal Plain, Manjimup area, the south coast from Augusta to Bremer Bay and from Esperance to Cape Arid.

To learn more about the Australasian Bittern go to [birdlife.org.au/bird-profile/australasian-bittern](http://birdlife.org.au/bird-profile/australasian-bittern)

## Wetland Habitat data

Wetland habitat data have been collected for more than 120 wetlands and detailed vegetation mapping has been conducted on four important wetlands. These data show that Australasian Bitterns prefer wetlands with larger areas of sedge. Bittern were found in wetlands with three to 510 hectares of sedge present and an average area of 114 hectares of sedge.



## Healthy wetlands are the key to Bittern conservation

Australasian Bittern need large, relatively undisturbed freshwater wetlands with large areas of cover such as rushes and sedges that are inundated by water.

Water dependant birds such as Australasian Bittern require water availability. Good quality water provides good habitat and food resources. The drying climate in much of south-west Australia has been ranked as the greatest threat to Australasian Bittern.

## Project Achievements

Over the last five years the project has significantly increased knowledge about Australasian Bittern in WA. Achievements include:

1. Documented current range.
2. Documented wetland habitats.
3. Documented wetland chemistry requirements.
4. Estimated current population.
5. Determined wetlands important to the species.
6. Increased understanding of habitat requirements.
7. Listed and ranked threats to the species.
8. Increased awareness of bittern and the importance of wetlands.
9. Educated volunteers on bittern habits and conducting surveys.

The project has also achieved conservation and management outcomes or made significant input to better conserve the species:

1. Listed the Australasian Bittern nationally as Endangered.
2. Uplisted the status in WA from vulnerable to Endangered.
3. Drafted a State Interim Recovery Plan.
4. Recommended conservation measures.
5. Proposed inclusion of additional areas into the Cape Le Grand National Park to ensure better protection of important wetlands.

BirdLife Australia's national Bittern Project delivers similar achievements across the species range in eastern Australia and liaises with the Federal government to develop a national Recovery Plan.



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## Raising awareness

Wingspan front cover Spring 2011

Legend of the Bittern Bird, the Australasian Bittern: Eagle v Albatross, OJ Parrish and Pecosaurus: Lord Howe Shearwaters in Perth: Rare Birds



## Bitterns need large, sedge vegetated wetlands

The Tarnup Swamp provides good habitat for Australasian Bittern.

Photograph: BirdLife Australia



## Volunteers conducting a bittern survey

Volunteers listen for the calls of Australasian Bittern after sunset or before dawn during spring and early summer. This photograph was taken at a survey at Kulinilup Swamp in the Muir-Unicup Wetlands.

Photograph: Robyn Pickering



Photograph: Robyn Pickering

## Healthy bittern habitat

*Baumea articulata* and *Baumea arthropylla* sedgelands at Cheynes Beach Road Swamp.

Photograph: Robyn Pickering

Photograph: BirdLife Australia

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