

Australasian bittern



Department of Biodiversity,
Conservation and Attractions



An endangered waterbird
we know very little about

Written by Senior Technical Officer, Alan Clarke - Wetlands Conservation Program

What is an *Australasian bittern* ?

- A large, robust heron to 70cm
- Males produce booming calls in Spring
- Our Iconic **Bunyip** bird
- Secretive behaviour and expertly camouflaged



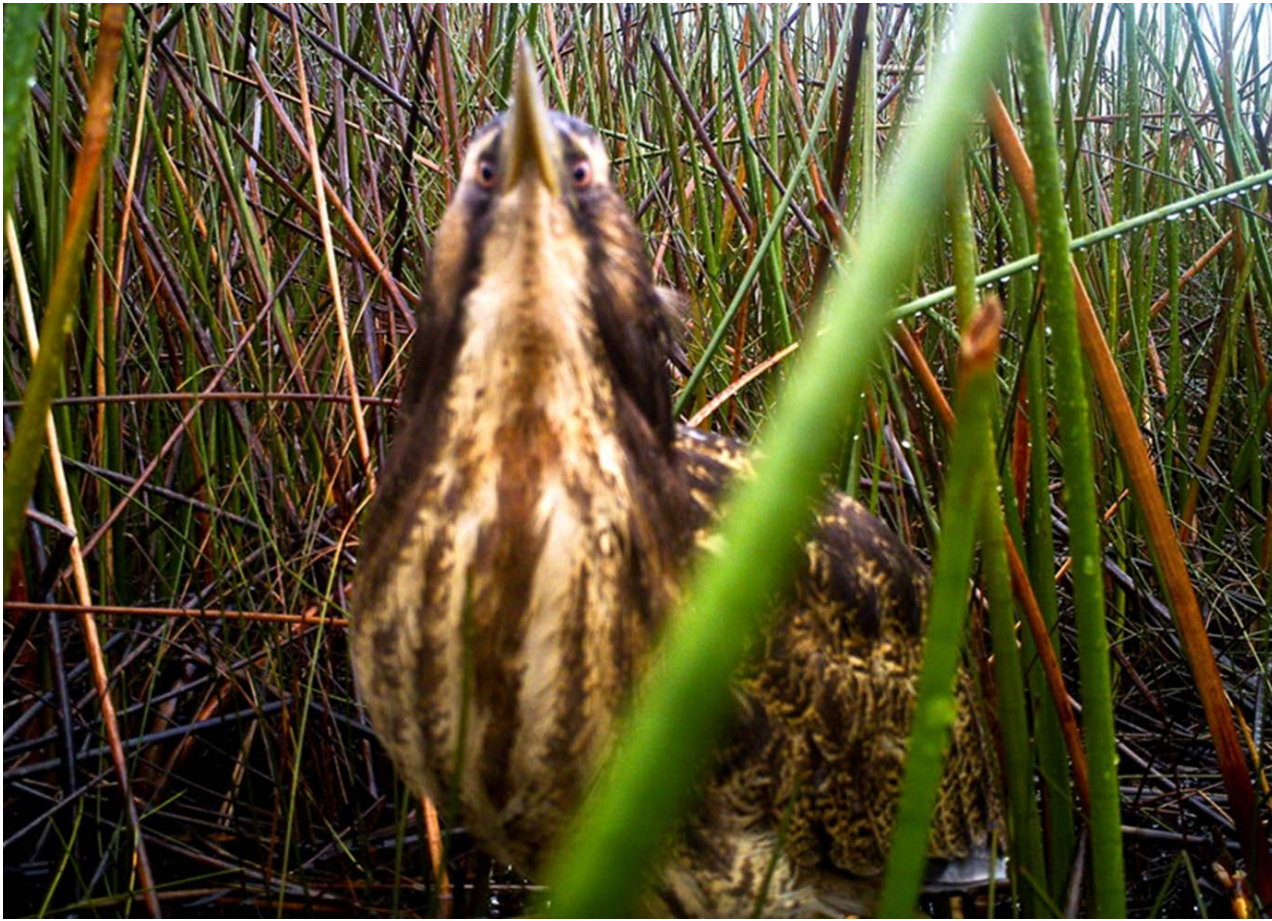
Where do they live?

- Large, fresh water, vegetated wetlands
- Bittern swamps have very specific combinations and proportions of tall rushes, low fine sedges and variable, mostly shallow, water depths
- Breeding sites are restricted to a handful of wetlands primarily along the south coast and east of Manjimup



Why all the fuss about *Australasian bitterns*?

- Globally threatened (IUCN Red list)
- 2011: Listed as Endangered (EPBC Act 1999)
- Surveys indicate 25-50% decline in WA since 1980s
- **Estimated to be less than 150 birds in WA**



What are we doing to learn more about the *Australasian bittern*

The **Department of Biodiversity, Conservation and Attractions** is conducting a collaborative research project, with funding support from **SOUTHCOAST NRM**, to learn more about how to help recover the *Australasian bittern* along the south coast



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Automated recording units (ARUs)



- ARUs are our ears in the swamps
- Monitor bittern activity by recording their calls
- Experienced staff and volunteers also listen for calls

Wading surveys through the swamps

- Help locate *Australasian bittern* and record their numbers
- Enable feeding and nesting habitat to be mapped using GPS
- Assess water depth and food availability
- Search for nests to help document their breeding requirements and potential threats



Continuous depth & on-site rainfall monitoring

- Provides data for modelling and prediction of likely hydrological futures for bittern wetlands in a region of declining rainfall
- Helping to better understand water level fluctuation on bittern presence and breeding activity



Collecting moulted feathers from *Australasian bittern*

- Assists in identifying habitat preferences
- Helps establish presence or absence
- Future opportunities for DNA analysis to help identify individuals and perhaps population viability



Searching for nests

Provides important information about habitat breeding requirements and potential threats



Motion sensor cameras

To record:

- Habitat preferences
- Feral animal activity
- Other species present
- Behaviours



Recent discoveries

Habitat preferences

Australasian bittern are being captured (on camera) more often in tall rushes and less often out in the open

One camera has recorded a video of a *Swamp Harrier* attempting to attack an *Australasian bittern*, but was thwarted by the tall rushes



Recent discoveries

Australasian bittern are regularly feeding in very shallow water

These two bittern are hunting in less than 10 centimetres of water



Recent discoveries

Australasian bittern are regularly feeding in very shallow water, which often coincides with the edges of wetlands.

This behaviour makes them vulnerable to predation by foxes



Recent discoveries

Motion sensor cameras provide insight into other species present



Swamp Harrier



11-02-2012 17:37:48

Rakali

Bushnell

079°F



11-04-2012 07:16:57

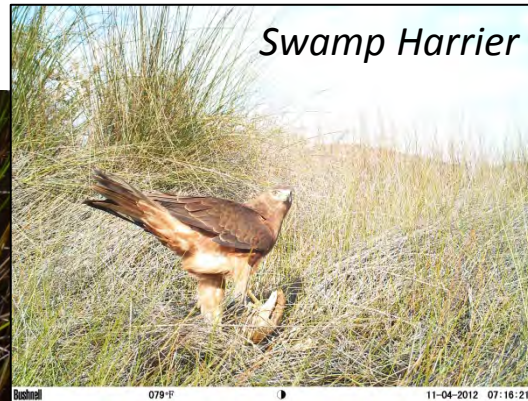
Australian native water rat

Threats

Australasian bittern are vulnerable to predation by native and feral animals

A *Swamp Harrier* was discovered devouring its recent kill of a juvenile *Australasian bittern*

Foxes are regularly caught on camera hunting in shallow water where bittern are regularly seen



Threats

Declining rainfall

Less water in the wetlands means:

- Fewer wetlands with sufficient water to sustain bitterns
- More wetlands drying early and few permanent wetlands
- Increases in salinity affecting frog & crustacean numbers
- Salinity affects the health of rushes and sedges



Where to now?

- Finalise the *Australasian bittern* Recovery Plan
- Seek more funding and resources for further research
- Improve feral animal control program
- Expand current research and monitoring program



Valued Volunteer contributions!



- A very big THANK YOU to [Tony Bush](#) who has provided hundreds of volunteer hours. Tony's highly respected ornithological expertise has greatly contributed to the success of this project
- Thanks to [Shaun Welsh](#) for his many valued volunteer hours assisting this project over the last few years
- Thanks also to [Joan Bush](#) who spent time enhancing some of these photos