

Hooded Plover and Salt-Lakes foreshore Conservation, North Stirlings, WA



Project Report for Feb-March 2018

This project is supported by funding from the Western Australian Government's State Natural Resource Management Program, supported by Royalties for Regions. It has also been supported by the Cranbrook Gillamii Centre.



Acknowledgements

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Report written by Tony Peterson, Project Officer, with input from Basil Schur, Projects Manager, Green Skills

Marcus Singor and Steve Elson provided valuable support and input into this project.

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1 Background

1.1 Scope of Work

To complete a short-term Hooded Plover and Salt Lakes foreshore conservation project in the North Stirlings totalling 71 hours (including landholder meetings and lake surveys).

Key Tasks:

- To undertake Hooded Plover surveys on lakes in the Cranbrook area with particular focus on the Lehmann, Pech and Bradshaw farms, and if time permits, other lakes recorded by Elson as having had breeding Hooded Plovers.
- To register Hooded Plover and other shorebird sightings on the Birdlife portals – MyHoodie, Shorebird 2020, and General Birdata Survey(fixed route search unstandardized).
- To meet with the local landholders and family members and other local residents, where feasible, and encourage them to join in bird surveys.
- To participate in a Hooded Plover field trip in mid February starting from Bobs Lake bird hide.
- To do a short presentation at the Festival of Birds Symposium on March 16 in Albany.
- To write up a brief, readable, illustrated report and recommendations aimed at landholders of the results of the project and its outings. These recommendations would relate to fencing, predator control, islands, revegetation, stock management, etc. A draft version to be produced for comment first.

1.2 Location

The study area is located in the Central-west Wetland Zone of the North Stirling Basin.

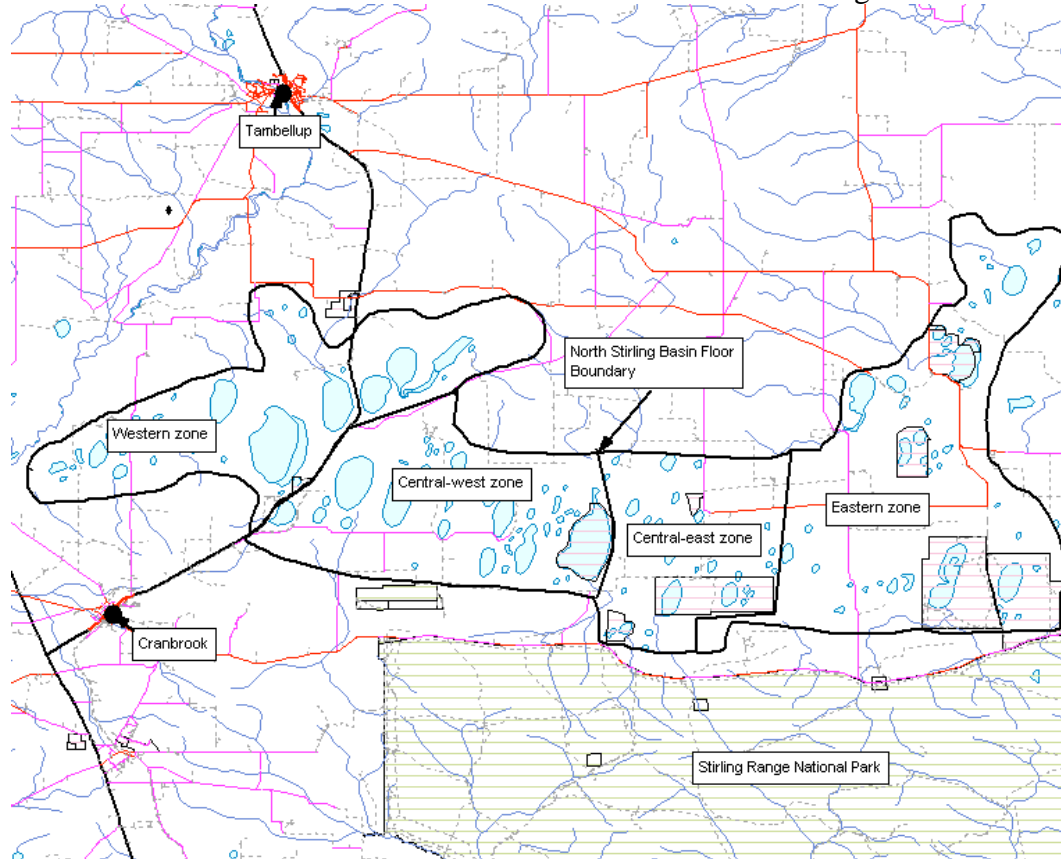


Figure 1: Wetland Zones of the North Stirling basin

Reference: K Hopkinson, 2005, Wetland Conservation in the North Stirling Basin, South Coast region of WA. Management Recommendations for the Balicup Group of Wetlands, (Report for Green Skills)

1.3 Site Selection rationale

Site selection within the project area was based on unpublished work by Steve Elson, who has been compiling and maintaining hooded plover breeding records in the area since 2005.

Visits were constrained to sites accessible from public roads, or sites where access had been approved by landowners and lessees.

Steve Elson is currently preparing a summary report based on field studies carried out on the Hooded Plover feeding, breeding and social behaviour, (1994-2018).

Findings of the report in preparation (*Personal Communications with Steve Elson*) include:

My field research on Hooded Plovers Within this region indicate approximately 200 breeding records. Note that Hooded Plover populations change when other Regional wetland systems dry up ie the Lake Grace Systems, Pingrup Lakes North and South Systems, Newdegate and Lake King Systems and The lake systems within the greater Wagin and Katanning area.

The Key Habitat Systems that supported important Feeding, loafing and nesting areas were exposed sandy beaches Note often with a 20m > buffer zone between intermittent shore-lines and stable vegetation systems. Other important sites include peninsulas, islands and a Mosaic combination of low lying Samphire interspersed with open areas of exposed sandy areas). It should also be noted that many of these lakes were important nesting sites for Red-Necked Avocets and Black-Winged Stilts, Red Capped Plovers, and in the case of areas supporting flooded Samphire, Red Kneed Dotterels were found to nest in loose colonies.

The Cranbrook Lake Systems are very important habitats, not only for Hooded Plover Populations but also for Healthy breeding populations of Black-Winged Stilts and Red-Necked Avocets including Migratory Waders. Based on the initial summarized findings Those Salt Lake systems that supported heavy Riparian Vegetation Zones consisting of Tall Grasses, Shrubs and Trees were found to support minimal Hooded Plover populations..

Note from Marcus Singor (personal communication, April 2018) *The 200 breeding records covers a period of 12 years on the map and the field studies period covers 24 years . This would indicate only 16 pairs a year breed on average based on the 12 year period and 8 pairs based on the field study period. These figures I believe are more in line with what is happening on the ground. Further a lot of these breeding attempts fail due to floods, predation, stock trampling etc . It is the low breeding success we are trying to improve)*

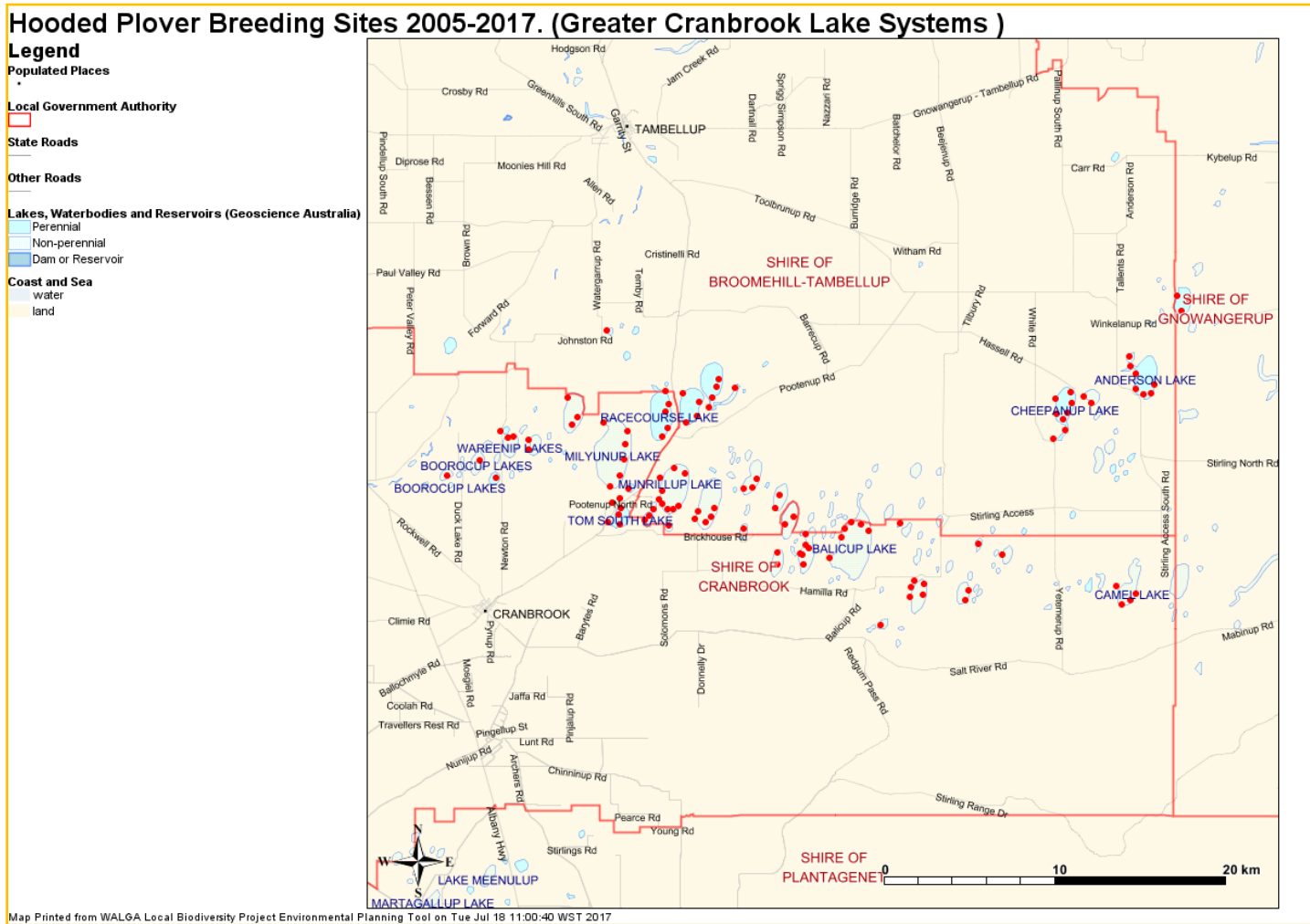


Figure 2: Steve Elson observations of Hooded Plover Breeding Sites 2005-2017 (Cranbrook)
 (Reference: Steve Elson Pers comm)

1.4 Survey Methods

Accessible lakes were visited by an experienced observer with binoculars and a spotting scope. All lakes were scanned by spotting scope, and lakes were then circumnavigated by foot if birds were sighted or if hot conditions had prevented an effective initial scan due to mirage conditions.

Lakes with Hooded Plover or Red-capped Plover present were subject to slow and intense binocular survey during circumnavigation in order to record specialised data required in the MyHoodie and Shorebird 2020 databases, such as behaviours indicative of nesting or the presence of young or nests.

1.4.1 MyHoodie Survey Method.

Communications with Marcus Singor were used to obtain access and update BirdLife Australia’s “MyHoodie” portal.

Reference material used was the publication written and compiled by Glenn Ehmke and Grainne Maguire, 2012 - Birdlife “MyHoodie, A guide to the amazing breeding lives of Hooded Plovers, Field companion to the website www.myhoodie.com.au

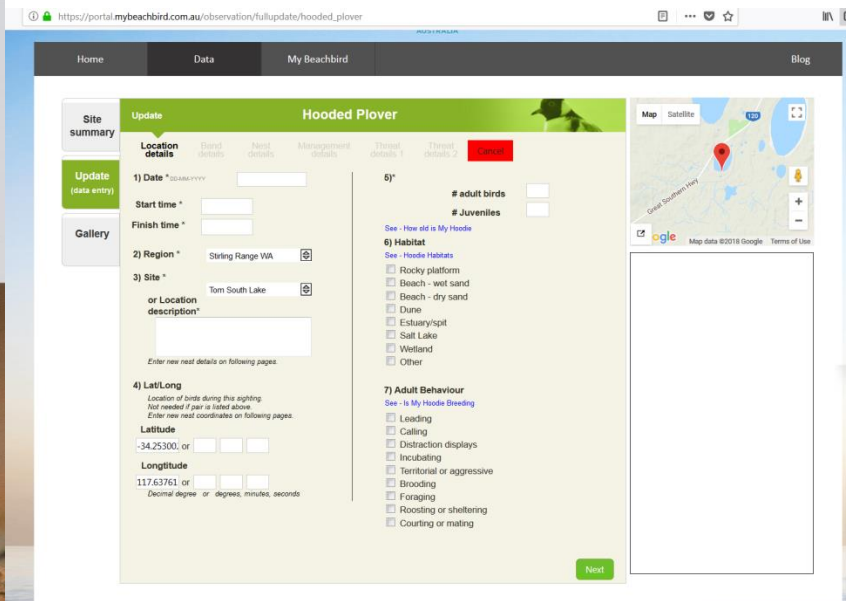
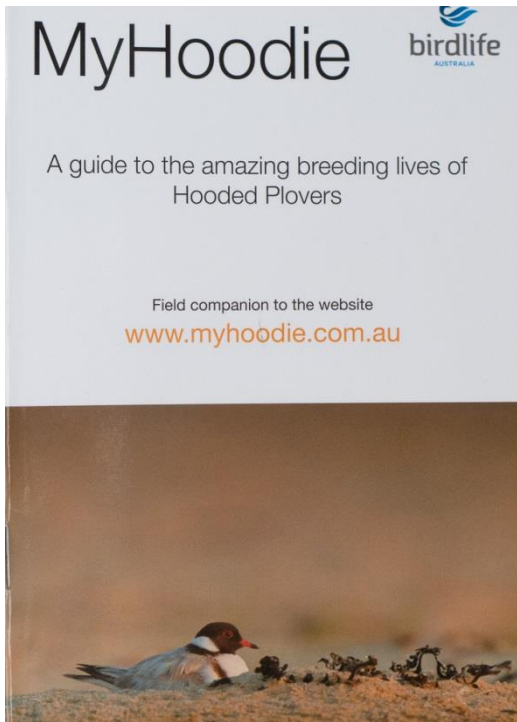


Figure 3: MyHoodie Field Companion and website

1.4.2 Shorebird 2020 Survey Method

The observer's existing accesses were used to record shorebirds and waterfowl on a lake, the water-level, the wind and other environmental factors, and additional notes as required.

A constraint of this method is that it can only be used on a location previously "set up" to record shorebird 2020 data across years. Bob's Lake had been set up as an approved count area (named "Munrillup Lake South") and this was used to record the full bird count for shorebirds and waterfowl. Tom South Lake had not been set-up as an approved Shorebird 2020 count area,

1.4.3 Other Birddata Survey Methods

BirdLife's Birddata can be used to record surveys of different types, for example: 2ha 20 min search, 2 ha non-20min search, 500m area search, 5km area search, bird list, breeding territory monitoring, fixed route Search, incidental search, and the Shorebirds 2020 counts.

Tom South lake's shorebird counts were recorded as a Fixed Route Search, for shorebirds only, circumnavigating the shoreline of the lake

2 Results

Thirteen lakes were visited during the field survey component of the project.

Fifteen MyHoodie Surveys, one Shorebird 2020 survey, and one Birddata Fixed Route Search Survey were completed over the 13 lake locations during February.

The MyHoodie database was updated with 7 new lakes/locations for ongoing counts, and the issue of multiple names for the Bob's Lake location in the MyHoodie Database was resolved.

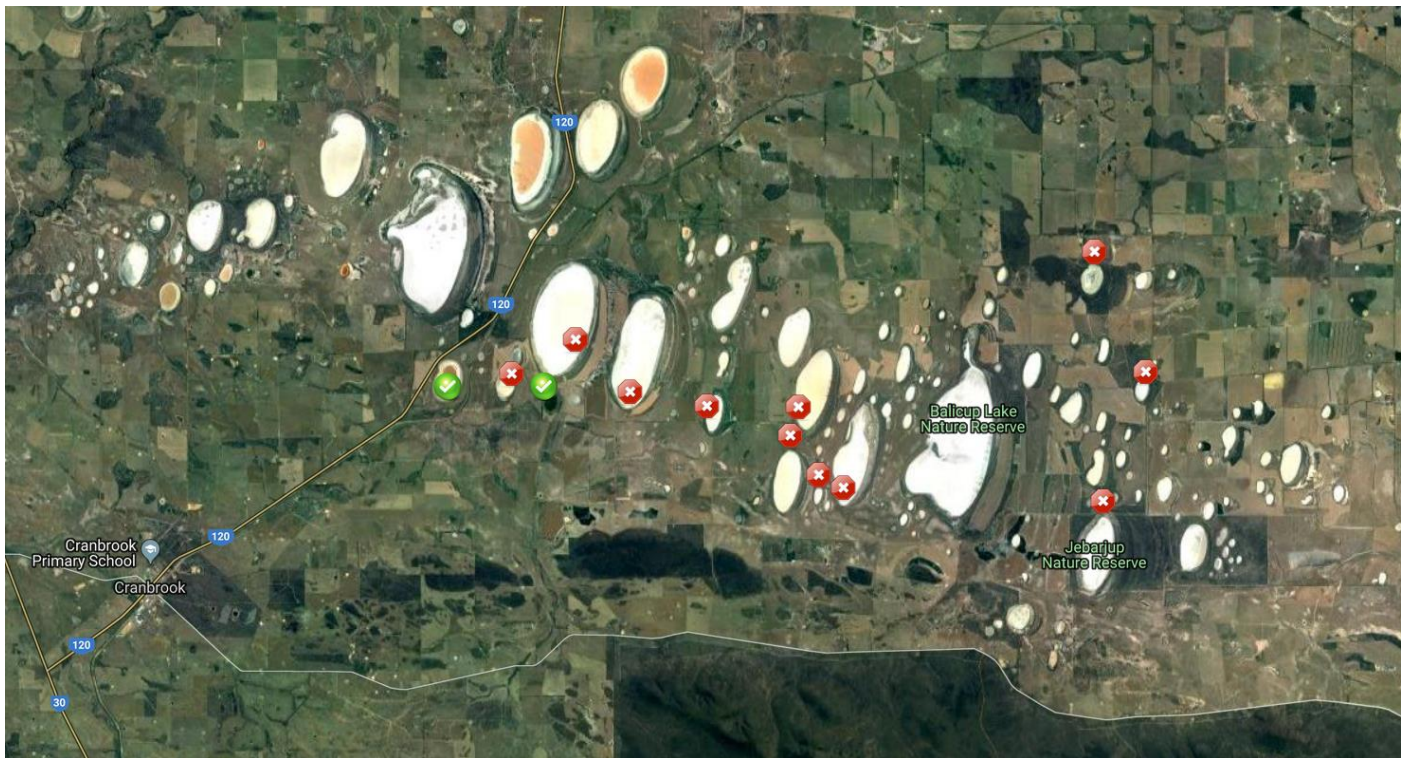


Figure 4: Sites Visited – (Green Ticks indicate Hooded Plover Sightings)

2.1 Results- Hooded Plovers

Tom South Lake.

- 9 hooded plovers were observed resting/roosting on the Eastern Lake shore. No evidence of current nesting or young was observed during circumnavigation of the lake by foot.

Bobs Lake/(or Yelgin Pool) /Munrillup Lake South

- 2 Adult and 2 juvenile Plovers observed were observed on 2, 7, and 14 Feb 2018.
- Juveniles were estimated to be around 5 weeks old on 2 Feb, based on them being 3/4 to 7/8 of full adult size, with strongly scalloped back, wing, and head feathers, pale legs and orange eye-rings.

All other Lakes were totally dry and held no Hooded Plovers at the time of survey.

2.2 Results – Other Shorebirds/Waterfowl

Tom South Lake.

47 Red-capped Plovers were feeding and resting on the lake margins, including 3 chicks.

2 separate occurrences of distraction displays by red-capped Plovers suggests the presence of other young or nests.

Bobs Lake/(*or Yelgin Pool*)/Munrillup Lake South.

Observations on 2 Feb included 320 Australian Shelduck, 122 Chestnut Teal, 93 Grey Teal, 4 Pacific Black Duck, 2 Banded Stilt and 4 Black-winged Stilt.

All other Lakes were totally dry and held no shorebirds or waterfowl.

2.3 Results – Informal/adhoc/bushbird observations

Fringing vegetation and saltlake foreshore vegetation were not subject to formal bird counts.

Ad hoc observations noted >25 species of bushbird and raptor.

3 sites of remnant vegetation requiring formal Bushbird Surveys were identified.

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3 Lake Visit/Foreshore Conservation Notes

3.1 Tom South Lake

Location :

34° 14' 65" S

117° 38' 45" E

3.1.1 Bird Observations:

- 9 hooded plovers were observed resting/roosting on the Eastern Lake shore.
- 47 Red-capped Plovers were feeding and resting on the lake margins, including 3 chicks.
- 2 separate occurrences of distraction displays by red-capped Plovers suggests the presence of 2 additional nests or clutches of young.

3.1.2 Lake and Foreshore Observations

The lake was approximately 1/8 full and continuing to dry at the time of the survey. This level appears lower than normal for this time of year.



Figure 5: Tom South Lake, Water level

Trees and shrubs on the foreshores and surrounds appeared to be in good condition, although little understory is present due to the long history of stock-grazing.

Evidence of stock on the margins of the lake suggests that stock disturbance is a significant threat to Hooded Plover nesting on this lake. The 2 threats of main concern are:

- Stock disturbance while birds are nesting, or young are less than 20 days old, resulting in crushing of eggs/young or the prevention of young from feeding.
- Damage of feeding habitat of young due to stock faeces. (Physical impediment to feeding and the potential localised eutrophication of the shallow-water feeding zone.)



Figure 6: Tom South Lake, stock disturbance in breeding/young feeding areas



Figure 7: Tom South Lake, Stock Faeces in breeding/young feeding areas

3.1.1 The case for stock-proof fencing at Tom South Lake

MyHoodie records since 2004 reveal: a history of Hooded Plover nesting, a highest count of 330 Hooded Plovers on one day in 2007, and a highest count of 85 Hooded Plovers in 2017. Eighteen of Forty-three records have counted >10 Hooded Plovers.

Steve Elson's Survey Notes on shorebird,s (*Pers Comms with Steve Elson*) notes that the lake is a significant feeding site for many Migratory Shorebirds, including; (*HC = highest counts*), Red Necked Stints HC 350, Sharp tailed Sandpipers HC 175, Golden Plover HC 7, Curlew Sandpipers HC 250, Pectoral Sandpipers HC 3, Common Greenshank HC 18, and Greater Sand Plover HC 4.

The lake when at its fullest, usually after a major Rainfall event 100mm> (*based on breeding season 2016 in response to remnant cyclone system*), provides important nesting sites for a variety of Waterbirds including Eurasian Coots 75 nests, Black swans 18 nests, Australasian Shovelers 4 nests, Pink Eared Ducks 23 nests,

Chestnut Teal 3 nests, Grey Teal 12 nests, Blue Billed Ducks 2 nests, Little Pied Cormorants nesting colony 9 nests, Musk Ducks 15 nests, White Eyed Duck 6 nests

A 12 month observation of Tom South lake in 2007, comprising 48 surveys, recorded 70 species of birds on the lake and surrounding vegetation including 33 species that were nesting. (*Appendix 2: Steve Elson, 2010, BIRDS OF TOM SOUTH LAKE, CRANBROOK, Western Australian Bird Notes Volume 133, pps 12-16*)

A first pass estimate suggests that approximately 3.5km of fencing would be adequate to protect the Foreshore of Tom South Lake and initial discussions between Green Skills, the property owner, and the property lessee suggest that all parties agree in principle that a fencing proposal, and actual fencing, can proceed in the near future.



Figure 8: Tom South Lake, fencing proposal

3.2 Bobs Lake/(or Yelgin Pool) /Munrillup Lake South

Location

34° 15' 21" S

117° 40' 3" E

The Bob's Lake location is also recorded on maps and the MyHoodie Database as Yelgin Pool, and on the Shorebird's 2020 survey database as Munrillup South

3.2.1 Bird Observations:

- 2 Adult and 2 juvenile Plovers observed were observed on 2, 7, and 14 Feb 2018.
- Juveniles were estimated to be around 5 weeks old on 2 Feb, based on them being 3/4 to 7/8 of full adult size, with strongly scalloped back, wing, and head feathers, pale legs and orange eye-rings.
- 20 Hooded Plovers were observed on 5 March 2018
- Historical MyHoodie Records since 2010 include: (*HC = highest counts*) HC 77 Hooded Plover in 2016, and 7 of 11 records record more than 20 Hooded Plovers.
- Observations on 2 Feb included Shorebird 2020 survey counts of: 320 Australian Shelduck, 122 Chestnut Teal, 93 Grey Teal, 4 Pacific Black Duck, 2 Banded Stilt, 4 Black-backed Stilt (now know as Pied Stilts)
- Incidental bushbird sightings included Black-faced Woodswallow, Tree Martin, and mixed bushbird feeding parties including White-browed Scrubwren, Splendid Fairy-wren, and Yellow-rumped Thornbill



Figure 9: Bobs Lake, 1 adult and 2 young Hooded Plovers



Figure 10: Bobs Lake, 2 adult and 1 young Hooded Plovers



Figure 11: Bobs Lake, Juvenile Hooded Plover approx. 5 weeks old

3.2.2 Lake and Foreshore Observations

- The lake has been well fenced by the property owners with large areas of remnant vegetation and revegetation.
- Any future works need to preserve and not impinge on the >20m buffer zone between intermittent shore-lines and stable vegetation systems on the western (bird-hide) side of the lake which is the best Hooded Plover Habitat and is now a demonstrated breeding site.

3.3 Lehmann 1

Location

34° 15.095' S

117° 39.326' E

3.3.1 Observations:

This Small Lake a few hundred metres west of Bobs lake was visited on 2 February 2018 and no water, no Hooded Plover and no shorebirds were present. The lake is likely too small to be ideal habitat for Hooded Plovers.

The lake is Ringlock fenced and the fenced area contains remnant vegetation, revegetation, and fringing grasses.

Incidental bushbird sightings included Elegant parrot, Crested Pigeon, Common Bronzewing in fringing grasses; Black-faced Woodswallow roosting in and hawking from fringing dead trees ; and Australian Ringnecks in fringing mature trees with crown foliage. Wedgetail Eagle, Nankeen Kestrel and Black-shouldered Kite were seen in the vicinity

The bushbird activity observed in the vicinity of this location suggests that a bushbird count should be scheduled for the lake surrounds after autumn/winter rains and in spring breeding seasons to monitor bird related outcomes of the work to date.



Figure 12: Lehmann 1, fencing around lake, remnant vegetation, revegetation, and fringing grasses

3.4 Munrillup Lake

Location

34° 14.787' S

117° 41.350' E

3.4.1 Observations:

This Large Lake a few hundred metres North of Bobs lake was visited on 2 February 2018 and no water, no Hooded Plover and no shorebirds were present.

Only one prior MyHoodie survey has been recorded for this lake and 2 Hooded Plovers were observed on that day in 2010.

There is evidence of stock disturbance on the lake bed in potential Hooded Plover Habitat (if water is present in the lake).

Discussions were held with the property owners during and after the field visit to finalise fencing and revegetation activities scheduled for the lake surrounds this year.



Figure 13: Munrillup Lake shoreline

3.5 Brickhouse Rd site no1 /Lehmann 2

Location

34°15' 3" S

117° 41' 25" E

3.5.1 Observations:

This Large Lake a few hundred metres East of Bobs lake was visited on 2 February 2018 and no water, no Hooded Plover and no shorebirds were present.

No circumnavigation of the lake was performed during the visit and no assessment of the lake surrounds was completed due to access constraints on the northern side of the lake.

The Lake has been recorded on the MyHoodie database as Brickhouse Rd site No.1 to facilitate future counts.



Figure 14: Brickhouse Rd site no1 /Lehmann 2

3.6 Brickhouse Rd site no2 /Pech 1

Location

34°15' 33" S

117° 42' 51" E



Figure 15: Brickhouse Rd site no2 /Pech1

3.6.1 Observations:

This Lake on Brickhouse Rd East of Bobs lake was visited on 7 February 2018 and no water, no Hooded Plover and no shorebirds were present.

The lake is likely too small and vegetation too close to the shoreline to be to be ideal habitat for Hooded Plovers

The Lake has been recorded on the MyHoodie database as Brickhouse Rd site No.2 to facilitate future counts.

The Eastern side of the lake was visited and the lake surrounds were navigated by road to the South and East of the Lake.

There is a large area of good quality remnant vegetation around the southern margins of the lake, including flowering eucalypts at the time of visit, and this is should be a high priority for preservation.

The eastern side of the lake and it's remnant vegetation was protected by mostly ringlocked fence.

A short East-West section of approx. 200m of 4 strand fence was allowing sheep to access the remnant vegetation.

It is recommended that:

- A circumnavigation of the lake be performed on foot to determine how much of the remnant vegetation is protected by existing old ringlock fence.
- An area calculation of the remnant vegetation area is completed.
- An assessment be made as to whether a high value low cost option to protect remnant vegetation is possible by emplacing approx. 200m of new ringlock fencing.
- Bushbird surveys are performed in the remnant vegetation, especially after rains and in spring.



Figure 16: Brickhouse Rd site no2 /Pech1, potential fencing location to protect remnant vegetation

3.7 Brickhouse Rd site no3 /Pech 2

Location

34°15' 27" S

117° 44' 31" E

3.7.1 Observations:

This Lake on Brickhouse Rd East of Brickhouse Rd site no2 /Pech1 was visited on 7 February 2018 and no water, no Hooded Plover and no shorebirds were present.

The Lake has been recorded on the MyHoodie database as Brickhouse Rd site No.3 to facilitate future counts.

The South side of the lake was visited and the lake surrounds were navigated by road to the South and East of the Lake.

It is recommended that:

- A circumnavigation of the lake be performed on foot to determine how much of the remnant vegetation is protected by existing old ringlock fence.

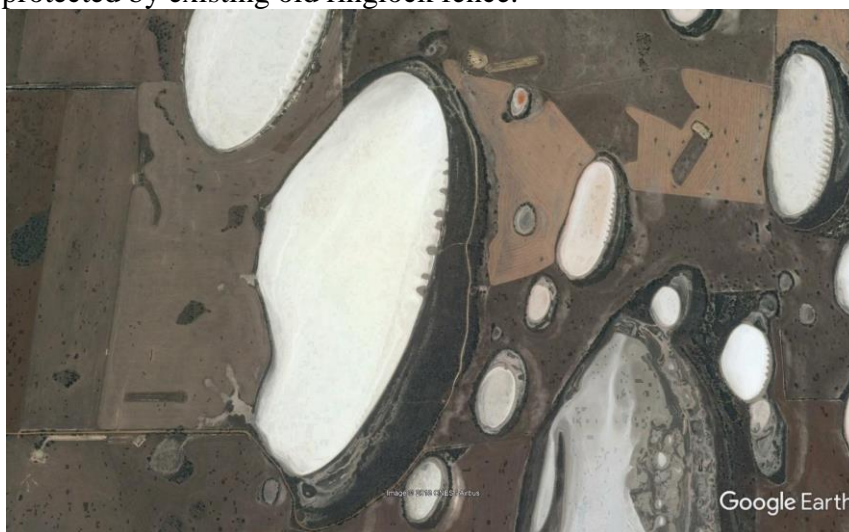


Figure 17: Brickhouse Rd site no2 /Pech1

3.8 Brickhouse Rd site no4 / Pech 3

Location

34°16' 18" S

117° 44' 7" E

This was visited on 7 February 2018 and no water, no Hooded Plover and no shorebirds were present. No circumnavigation by foot was completed.

The Lake has been recorded on the MyHoodie database as Brickhouse Rd site No.4 to facilitate future counts.

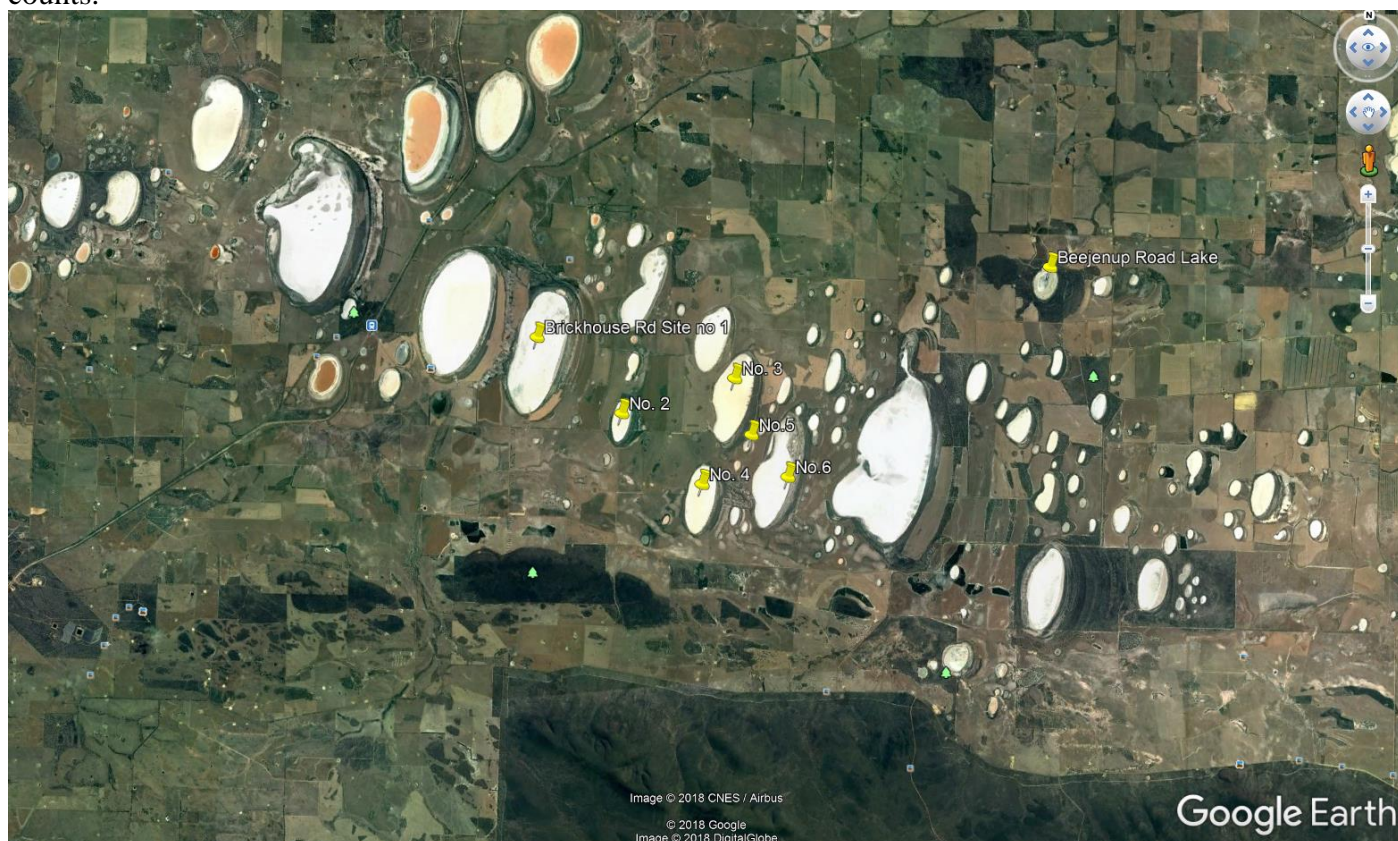


Figure 18: Brickhouse Rd sites

3.9 Brickhouse Rd site no5/ Pech 4

Location

34°15' 38" S

117° 44' 51" E

This was visited on 7 February 2018 and no water, no Hooded Plover and no shorebirds were present. No circumnavigation by foot was completed. This lake is likely to be too small to be ideal Hooded Plover habitat.

The Lake has been recorded on the MyHoodie database as Brickhouse Rd site No.5 to facilitate future counts.

3.10 Brickhouse Rd site no6 /Pech 5

Location

34°16' 3" S

117° 45' 16" E

This was visited on 7 February 2018 and no water, no Hooded Plover and no shorebirds were present. No circumnavigation by foot was completed.

The Lake has been recorded on the MyHoodie database as Brickhouse Rd site No.6 to facilitate future counts.

3.11 Beejenup Rd Lake/Bradshaw 1

Location

34°16' 3" S

117° 45' 16" E

3.11.1 Observations:

This Lake was visited on 7 February 2018 and no water, no Hooded Plover and no shorebirds were present. The Lake has been recorded on the MyHoodie database as Beejenup Rd Lake to facilitate future counts. The North side of the lake was visited.

It is recommended that:

- An area calculation of the remnant vegetation area is completed.
- Bushbird surveys are performed in the remnant vegetation, especially after rains and in spring.

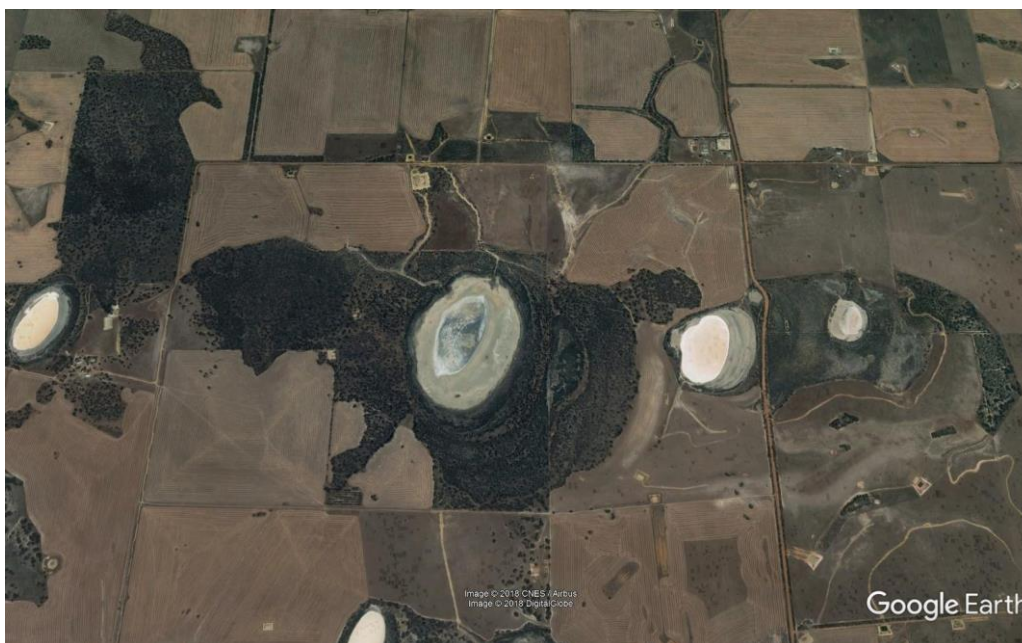


Figure 19: Beejenup Rd Lake/Bradshaw 1



Figure 20: Beejenup Rd Lake/Bradshaw 1

3.12 Beejenup Nature Reserve Lake

Location

34°13.387S' S

117° 49.570' E

This was visited on 7 February 2018 and no water, no Hooded Plover and no shorebirds were present. No circumnavigation by foot was completed. This lake is likely to be too small to be ideal Hooded Plover habitat.



Figure 21: Beejenup Nature Reserve Lake

3.13 Jebarijup Lake

34°17' 0" S

117° 49' 40" E

This was visited on 7 February 2018 and no water, no Hooded Plover and no shorebirds were present. No circumnavigation by foot was completed.

MyHoodie data exists back to 1997 and historically shows presence of a pair most years with a one time High Count of 13 in 2004.



Figure 22: Jebarijup Nature Reserve Lake

4 "Help The Hoodie" Field Trip

On Wednesday 14th February 2018 Green Skills and Gillamii Centre held a "Help The Hoodie" field trip around salt lakes on farms in the Cranbrook area.

The field trip commenced at the Bob's Lake Bird hide, on the Lehmann farm, north east of Cranbrook and visited 4 lakes on local farms. The event provided a focus on the Hooded Plover and how conserving foreshores of local lakes will benefit this special bird, a species at risk of becoming endangered. Green Skills, working with the Gillamii Centre, is keen to provide ongoing assistance for farmers to fence off their salt lakes and control feral predators such as foxes. In 2018 three local farming families (the Lehmann, Pech and Bradshaw families) will be undertaking salt lake foreshore fencing programs supported through landcare grants.



Figure 23: Help the Hoodie field trip

5 Outcomes and recommendations

5.1 Outcomes to Date

Fifteen MyHoodie Surveys, one shorebird 2020 survey, and one Birdata Survey were completed over 13 lake locations during February 2018.

The MyHoodie database was updated with 7 new lakes/locations for ongoing counts.

The issue of multiple names for the Bob's Lake location was resolved in MyHoodie database

Landowners have been provided with evidence of Hooded Plovers breeding on their saltlakes, which they have worked to preserve, and Hooded Plover reporting by landowners has commenced.

An “In Principle” agreement to erect a stock-proof fence around Tom South Lake has been made by Green Skills and the owner and the lessee of the property containing the lake.

Replanning of foreshore preservation work near Bobs Lake was completed to ensure that future works preserve and not impinge on the >20m buffer zone between intermittent shore-lines and stable vegetation systems on the western (bird-hide) side of the lake which is the best Hooded Plover habitat and is now a demonstrated breeding site

Presentations to date and site-visits have resulted in the further scheduling of an April 2018 presentation on Lake Conservation and Hooded Plovers which is aimed at locals and landowners in the Cranbrook area.

Liaison with BirdLife WAs Shorebird 2020 coordinator on Mar 25 2018 took place to confirm that it is possible to setup count areas in the database for each of the lake systems in the Cranbrook area. This will facilitate ongoing counts and provide a mechanism for landowners to add count data (once trained).

5.2 Ongoing Work

Ensure that further landowners of “significant lakes” in the Cranbrook area are informed of the April 2018 presentation on lake conservation/Hooded Plovers at the Gillamii centre.

Continue Hooded Plover Counts / Landowner Liaison on existing lakes over 2018, especially after rains.

Assess if a high value low cost option to protect remnant vegetation is possible at Brickhouse Rd site no2 /Pech1 by emplacing approx. 200m of new ringlock fencing. Requires foot circumnavigation of lake and area calculation for reality-checking the business case.

Acquire funding and fence Tom South Lake

Set up Shorebird 2020 count areas in the database for each of the lake systems in the Cranbrook area.

5.3 Recommendations

Standardise location naming across Birddata, MyHoodie, Shorebird 2020, and historical hydrological reports in order to compile/record holistic data that will support ongoing work on Lake preservation.

Perform ongoing bushbird surveys in remnant vegetation at locations: Lehmann1, Brickhouse Rd site no2 /Pech 1, Beejenup Rd Lake/Bradshaw 1.

Monitor future breeding success of Hooded Plover in fenced off lake areas to ascertain if breeding success has increased.

Contact and Liaise with additional landowners in the area who are known to have significant lakes (for example Racecourse lake) so that similar site inspections and counts can be performed after significant rains.

Continue to promote fencing of salt lake foreshores across the North Stirlings area

Appendix 1 - Advertising Flyers for Events



Green Skills Inc
Working for a sustainable future

PO Box 577 Denmark WA 6333
9848 3310 | bschur@greenskills.org.au
www.greenskills.org.au
ABN: 68989519966

Help the Hoodie !

***Field Trip to look at Hooded Plover habitat
conservation around the Salt Lakes of Cranbrook
1.30pm to 4pm, Wednesday 14th February 2018***

***Meet at the Bob's Lake Bird hide. Travel 7km north of Cranbrook on Great
Southern Highway, turn right into Brickhouse Rd for 4.5km- the laneway to
bird hide will be on left***



This Green Skills/Gillamii Centre field trip commences at the Bob's Lake Bird hide north east of Cranbrook and will visit lakes on the Lehmann and Pech farms. The event will focus on this special bird and how conserving foreshores of local lakes will benefit the Hooded Plover, a species at risk of becoming endangered. We will discuss what help is available for farmers to fence off their salt lakes and control feral predators, such as foxes.

**For further information and registration: contact Basil Schur at Green Skills Denmark
98483310 or 0429481019 Email bschur@greenskills.org.au**

This project is supported by funding from the Western Australian Government's State Natural Resource Management Program, supported by Royalties for Regions. The event is part of Green Skills' wetland conservation activities and has also been supported through local farming families. The Gillamii Centre is supported by the Shire of Cranbrook.



natural resource
management program



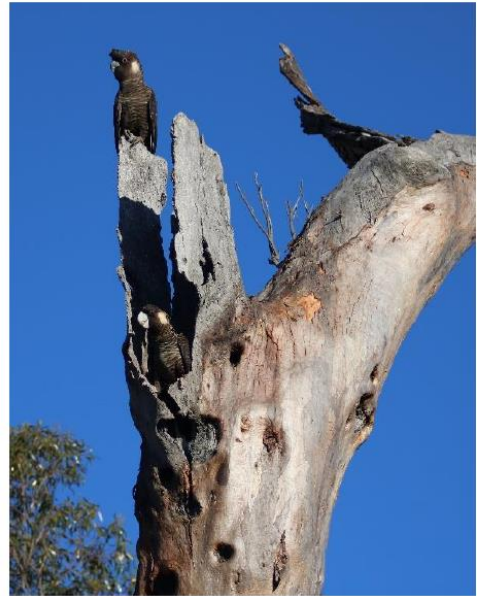
Green Skills Inc
Working for a sustainable future





These special birds need our help.

Flock to this free Carnaby's Cockatoo and Hooded Plover event.



When - 4-6 pm Tuesday the 24th April

Where- The Gillamii Centre 140 Climie St Cranbrook

What - Endangered bird workshop

Who - Jenni Loveland for more details Land line - 9826 1234 Mob - 0427 261 234

Email- po1@gillamii.org.au



Speakers-

Adam Peck - Birdlife Australia Carnaby's Black-Cockatoo Project Coordinator

Tony Peterson – Green Skills Project Officer for the Hooded Plover and conserving salt lakes

- Adam Peck is Carnaby's Project Coordinator for Birdlife Australia. In this role he coordinates the Great Cockey Count and Carnaby's breeding surveys. His previous role was with DBCA doing research on Mallee revegetation in the Wheatbelt
- Tony Peterson is a Green Skills Project Officer for Hooded Plover counts and salt lake conservation in the North Stirlings. He is an exploration geologist, and keen bird photographer, who has been involved with Bird-Surveys and conservation work in the Great Southern over the last 4 years.



natural resource management program



Australian Government

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SOUTHCOAST SOUTHERN DISTRICTS GOVERNMENT

Appendix 2

Steve Elson, 2010, BIRDS OF TOM SOUTH LAKE, CRANBROOK, Western Australian Bird Notes Volume 133, pps 12-16

pages 12 to 16 in Western Australian Bird Notes Volume 133 in 2010

BIRDS OF TOM SOUTH LAKE, CRANBROOK

Tom South Lake (34° 15' 43"S, 117° 38' 32"E) is located about 8 kilometres north east from Cranbrook along the Great Southern Highway to Tambellup. The lake contains water all year round and is on a private farming property. It cannot be accessed without permission. This article provides an insight into the birdlife at this salt lake and associated remnant vegetation located in the wheat belt.

Surveys were conducted in order to obtain base line data of the bird population. This information will allow future comparisons of bird distribution and abundance and measure any impact possibly resulting from climate change. A total of 48 surveys were conducted over a 12 month period in 2007. During November and December 2007 observations and recording were carried out on the bird species that utilised the lake and surrounding vegetation with an emphasis on the breeding behaviour of the birds observed.

The riparian vegetation around the immediate edge of the main lake is comprised mostly of melaleucas, and in some areas they are quite dense with trees reaching 10 m in height. At the south-eastern end of the lake there are many trees dead or dying, and this may be the result of prolonged drought or increased salt levels within the lake system.

At the south-western end of the lake there is a large flood plain, which for most of the year is dry but is still an important feeding and breeding zone for Hooded Plovers. Vegetation in the area between the flood plain and three smaller salt lakes to the east is comprised of smaller melaleuca shrubs with an understorey of native grasses. Further south is a large area of undisturbed heath, with mostly native grasses and a variety of small shrubs including melaleucas and acacias. Around the three smaller lakes are patches of melaleuca thickets interspersed with open areas of samphire. These three lakes only fill in good years.

Surveys of these lakes were carried out during August and September 2009. As a result of above average rainfall for this region over the winter months all three lakes were full, with a great deal of flooding well into the riparian vegetation, thus creating important nesting sites for several water bird species, including Chestnut Teal with 7 eggs, Australasian Grebe with 4 eggs, and two Silver Gull nests, one with 2 eggs and the other with 3 eggs. Within the flooded samphire two pairs of Black-winged Stilts were in the early stages of nest building.

Further South of the three lakes, towards the railway, line extensive patches of heath, samphire and melaleuca thickets dominate the semi-dry land habitats.

Surveys of birds were carried out within these sites during July, August, September and October of 2007. Species observed within these sites during the survey period included White-fronted Chats, Tawny-crowned Honeyeaters, Western Silvereyes, Brown Honeyeater, Red-capped Robins, Rufous Fieldwren, Splendid Fairy-wren, Southern Emu-wren, Golden Whistler, White-browed Babbler, Rufous Whistler, Grey Fantail, Inland Thornbill, Yellow-rumped Thornbill and Western Gerygone.

At the south-eastern end of the main lake along the railway line, the remnant vegetation is quite mixed with the dominant trees being York Gums and Sheoaks. The understorey is a mixture of grasses, mostly weeds. Bird species recorded within this site include Collared Sparrowhawk, Horsfield's Bronze-Cuckoo, Purple-crowned Lorikeet, Australian Ringneck, Red-capped Parrot, Yellow-throated Miner, Willie Wagtail, Rufous Whistler and Australian Magpie.

Cereal crops and pastures form a large part of the study site with two-thirds of the land area around the main lake system supporting pastures and cereal crops. Bird species observed utilizing these sites included Australian Magpie, Magpie-lark, Stubble Quail, Australasian Pipit, Black-faced Woodswallow, White-winged Triller, Yellow-rumped Thornbill, Australian Ringneck and White-fronted Chat.

During the core survey period of November and December of 2007 surveys were carried out on the feeding habits of several bird species utilizing the land supporting cereal crops and pastures.

Species list

Stubble Quail

One bird flushed from barley crop in field near the southern end of the lake.

Black Swan

Thirty four Black Swans sighted in the middle of the lake.

Australian Shelduck

Observed 47 birds resting on sand spit. Most birds were moulting.

Australian Wood Duck

Nine birds seen resting on sand spit next to Australian Shelduck.

Pink-eared Duck

Four birds seen to mix with Grey Teal.

Australasian Shoveler

One pair seen resting alone on exposed peninsula.

Grey Teal

A flock of 26 birds in a tightly knit group was sighted in the middle of the lake.

Pacific Black Duck

Fifteen found resting on sand spit with Australian Wood Duck and Australian Shelduck.

Australasian Grebe

Three birds observed with the Hoary-headed Grebe all in breeding plumage.

Hoary-headed Grebe

Large congregation of birds in breeding plumage and non breeding plumage in the middle of the lake. 78 counted.

Common Bronzewing

One male observed incubating two well developed eggs 18TH Oct 07 Nest in the fork of paper bark.

Crested Pigeon

Up to 18 birds seen in paper barks at the southern end of the lake.

Tawny Frogmouth

Two adults perched together with 2 recently fledged young 18TH Oct 2007 in paper bark trees at the edge of the lake (day time observation).

White-faced Heron

Six individuals observed perched in paperbarks at south west end of lake.

Black-shouldered Kite

One pair observed in freshly harvested field.

Collared Sparrowhawk

One pair was nesting with three large feathered chick 28th Oct 07 Nest located 8 metres above the ground in Wandoo tree opposite railway line and south east of the lake.

Wedge-tailed Eagle

One pair with nest which has been used for the last four seasons. One fully feathered chick ready to leave the nest 18TH NOV 2007. Nest site in tall eucalyptus species at the edge of the lake's southern end.

Brown Falcon

One dark phase bird observed stalking White-fronted Chats in low heath.

Eurasian Coot

A group of 56 birds counted. All were in a tightly knit group in the middle of the lake.

Red-necked Avocet

Group of 23 birds sighted resting together on sand spit. Most birds were adults with a few showing lighter shades in their plumage (chestnut, neck area).

Black-winged Stilt

Small groups were scattered throughout the lake system. A total of 54 birds counted. Adults out-numbered juveniles.

Banded Stilt

Two separate flocks near the shore line. One was located at the south western end of the lake and the other at the south east end of the lake. A total of 180 birds counted and of these the majority were juveniles lacking the typical chestnut band.

Red-capped Plover

A large flock of 125 Red-capped Plovers, consisting of adult males and females as well as a large number of juveniles. This was the largest number of Red-capped Plover recorded at this lake since surveys began. One interesting observation made during nocturnal surveys on this lake on 17 November 2007 was that many birds were arriving at the lake during the night using the cover of darkness, possibly to evade predators.

Banded Stilt, Black-winged Stilt, Red-necked Avocet, Grey Teal, Australian Shelduck, Black Swan, Hooded Plover and Red-capped Plover could be heard arriving in flocks at night. Bird counts made the following morning when light, were compared with the previous day counts and indicated a significant difference in species and individual numbers. Follow up surveys conducted on the 18th Nov 2007 indicated an increase in the numbers of several species including Black Swans, up from 34 to 55 ,Australian Shelduck up from 47 to 71 and Red necked Avocet, up from 23 birds to 75 birds

Hooded Plover

Six pairs were observed scattered around the edge of the lake mostly the south east and south west end of the lake. The main Hooded Plover flock was observed feeding with a large flock of Red-capped Plovers. A total of 76 Hooded Plovers were recorded.

Red-necked Stint

Four Red-necked Stints were seen feeding in close association with Red-capped Plovers.

Curlew Sandpiper

A small group of seven birds were seen resting on the point of a sand spit.

Whiskered Tern

Flock of 49 birds flying low over the water. Some birds observed resting on sand spit. Many birds were in breeding plumage and others were juveniles in non-breeding plumage.

Silver Gull

Three Silver Gulls were seen at the edge of the lake; all were adults with distinctive red bills and legs.

Purple-crowned Lorikeet

Small flocks moving through the area and sometimes stopping to feed on flowering eucalypts.

Australian Ringneck

Large numbers around much of the lake. Many recently fledged young birds with adults resting in paper barks at the edge of the lake.

Regent Parrot

Small family groups moving through the area.

Western Rosella

Adult and juveniles observed feeding on the ground near main road.

Red-capped Parrot

Several birds, mostly juvenile, observed along the railway line south east of the lake.

Elegant Parrot

One adult bird observed feeding recently fledged young 18th Nov 2007.

Horsfield's Bronze-Cuckoo

Three individuals observed feeding on caterpillars near the ground in samphire at the edge of the lake.

Shining Bronze-Cuckoo

One bird observed being harassed by Yellow-rumped Thornbills.

Rainbow Bee-eater

Small groups of six birds observed flying in a south westerly direction.

Eastern Barn Owl

During nocturnal field surveys, one bird was seen perched on a fence post at the side of the access road to the lake.

Splendid Fairy-wren

Four active nests recorded –first nest located on Oct 3rd 2007. The first nest contained 3 recently hatched chicks, Second nest located on Oct 9th 2007, Third nest located Oct 9th 2007 and Fourth nest located on Oct 12th 2007 second nest contained 4 host eggs and one Horsfield's Bronze-Cuckoo egg. The third nest contained 3 eggs and the fourth contained three 5-7 day old chicks. All nests were located at the south west end of the lake in heath and low paper barks.

Southern Emu-wren

One pair with a nest containing 3 chicks was recorded in low native grass 12 cm from the ground Located on Oct 9th 2007. The nest was very well concealed. It was only 5 metres from an active Splendid Fairy-wren's nest. Both males were observed to fight when near one another's nest.

White-browed Scrubwren

A total of eight pairs were studied during November. All pairs had 2-3 well advanced young, and no active nests were found at this time. All young birds were 8-12 weeks old and had plumages similar to adult females. Young birds were observed to feed independently of adults, though still maintaining a family association.

Rufous Fieldwren

Three males observed calling from exposed branches in low heath at the southern end of the lake. No nests recorded.

Western Gerygone

Three active nests recorded, all located in Wandoo t Both nests recorded along the railway line located on Oct 26th 07 the third nest located in small sapling on the edge of the main highway on Oct 28th 07. Two nests located in trees growing along the railway line south east of the lake, each contained 3 eggs. The remaining nest was located in the outer foliage of a small sapling 3 metres high and contained 2 eggs.

Inland Thornbill

Five pairs were studied during September, October and November. Three nests contained 3 eggs and two nests contained 2 eggs –One nest supporting three eggs located on 9th Sep 2007 The other 2 nests supporting 3 eggs located on Oct 12th 2007 two nests supporting two eggs located on Nov 6th and 7th 2007. In October 2007 due to unseasonably heavy rains two nests were abandoned. The same pairs rebuilt new nests in nearby shrubs three weeks after their first breeding attempts.

Yellow-rumped Thornbill

Twelve nests recorded, with pairs nesting around much of the lake. Most nests were found in paperbark trees. One nest was in a Sheoak and another in the outer leaves of a Wandoo tree. Some birds were building nests in the first two weeks of July. Most nests contained 3 eggs with only two nests containing 4 eggs. About 70% of the eggs were unmarked white and 30% of the eggs supported small red to reddish brown markings at the larger end of the egg shell. One nest contained the egg of a Shining Bronze-Cuckoo. The breeding results for Yellow-rumped Thornbills at Tom Lake South for the 2007 breeding season are as follows; 3 nests at different stages of construction were located on July 10th 07, 6 nests each supporting 3 eggs were located on Aug 28th 07, 1 nest supporting 3 eggs and 1 egg of Shinning Bronze Cuckoo was located on Sep 18th 07 and 2 nests each supporting 4 eggs were located on Sep 21ST 07

Observations at this site over three years indicated that most pairs nested in the same tree or nearby tree and that most pairs raised between 2 and 3 broods each season.

At one site a Grey Butcherbird was observed to rip apart the nest of a Yellow-rumped Thornbill which was only recently constructed and contained no eggs or young.

Singing Honeyeater

One nest recorded supporting 2 freshly laid eggs. Nest located on Oct 9th 2007. The nest was located in the outer leaves of a small paper bark tree at the south east end of the lake.

Yellow- throated Miner

One extended family of 17 birds was monitored for three breeding seasons. During the 2007 breeding season this group was involved directly or indirectly with 4 nests. Three nests contained 4 eggs and one nest

contained 3 eggs –Three nests each supporting 4 eggs were located on 16th Oct 2007. The fourth nest supporting three eggs located on 18th Oct 2007. Two nests were 75 metres apart.

Red Wattlebird

Three active nests recorded all were in paper bark trees and each nest contained 2 eggs First nest containing two eggs located on August 11th 2007 second nest located on August 16th 07 and the third nest located on Sep 4th2007. These eggs were considerably smaller than those recorded in Perth (Bold Park, Wanneroo).Egg measurements of clutches taken from Bold Park (2 pairs of Red wattlebirds with clutches of 2 eggs July 28th 1989) first clutch egg 1 measured 33.2 x 22.4, egg 2 measured 33.0 x 21.6, Second pairs clutch, measured first egg 32.4 x 21.2 second egg measured 32.1 x 21 At Pinneroo valley one pair with two eggs (August 12th 1994) first egg measured 33.8 x 22.6 second egg measured 32.3 x 21.6 in comparison to the three clutches of eggs measured at Tom South lake near Cranbrook are as follows , first clutch egg measurements of first egg 28.6 x 21,egg two measured 29.3 x 21,clutch 2, first egg measured 30.2 x 21.6 , second egg measured 31 x 21 ,Clutch three first egg measured 30.5 x 21, second egg measured 29.2 x 19.8 .

White-fronted Chat

Nine active nests recorded, all in low heath and samphire growing along the fence line that divides the lake system. The earliest nest was recorded in July, and contained 3 eggs. Nest 1 recorded with 3 eggs on July 8th 07 another 4 nests recorded on Sep 4th 07 two of these nests supported clutches of three eggs whilst the other two nests supported young one nest with three recently hatched chicks and the other nest with 3, 1wk old chicks ,a further 2 nests were recorded on October 3rd , one nest supporting 3 eggs and the other nest supporting 2 chicks ready to leave the nest, 2 nests both supporting 3 eggs were recorded on November 9th 07 possibly these are second clutches as old nests from this years breeding season were located in nearby samphire ,also that small flocks of independant young from this years breeding season were observed feeding on nearby open ground. Most of the birds had moved from the area by mid-December. On several occasions small flocks were observed feeding on small flies at the edge of the lake, and in close proximity to foraging Hooded Plovers.

Tawny-crowned Honeyeater

Three active nests were recorded in low heath –First nest located on Sep 7th 2007 supporting two eggs,second nest supporting two eggs located on Sep 20th 2007, the third nest supporting 2 recently hatched young located on 29th Sep 2007. Two nests contained 2 eggs and one nest contained 2 recently hatched chicks. All adult birds were shy and elusive during data collection. All three nests were placed less than 40 cm above the ground.

Brown Honeyeater

Six active nests were recorded The first nest observed to be under construction located on 30th August 2007, a further two nests were located on the 12th Sep 2007 both nests supported clutches of 2 eggs , three nests located on the 25th Sep 2007 ,one nest supported 2 , 4-6 day old chicks whilst the other two nests supported clutches of 2 eggs, mostly in paper bark trees growing around the edge of the lake. Four nests contained 2 eggs and one nest was still under construction. One nest contained two 4-6 day old chicks.

New-Holland Honeyeater

Five nests were recorded in extensive low heath at the south west end of the lake. On September 25th 2007 during extensive searches within low thick heath vegetation growing along the Great Southern Highway adjacent to Tom Lake 5 nests were recorded of these 2 nests supported clutches of 2 eggs another nest supported 3 eggs, whilst the other 2 nests were still under construction

Two active nests, each with two eggs, were located 15 metres apart. Only one nest contained 3 eggs and all nests were placed less than 2.5 metres above the ground.

White-browed Babbler

One family of 7 birds was observed in low thick paper bark trees, with old nests and roosting nests. One nest contained a single 5-7 day old chick Nest recorded on Sep 16th 2007. This family has been observed for the past three years. The group nest is in the same patch of bush each season and birds were only found to move locally.

Black-faced Cuckoo-shrike

One pair with nest containing 3 Nest located on Nov 12th 2007 and located 6 metres from an active White-winged Triller's nest also containing eggs. There was also a Willie Wagtail nest with 3 eggs located on the lower branch of the same tree as that of the Black-faced Cuckoo-shrike.

White-winged Triller

Three pairs recorded nesting at the southern end of the lake in paper bark trees. Two nests contained 2 eggs and one nest contained 3 eggs – all nests located on Nov 12th 2007. One White-winged Triller nest was found near a Willie Wagtail nest and Black-faced Cuckoo-shrike nest. Another White-winged Triller nest was found in a tree opposite an active Black-faced Woodswallow nest.

Golden Whistler

Three pairs were recorded in paper bark thickets. Two pairs had active nests, with one containing 2 eggs, and the other 2 chicks – nest one supporting 2 freshly laid eggs recorded on the 22nd of Oct 2007, the other nest supporting two recently hatched chicks located on 18th Nov 2007.

Rufous Whistler

One pair was recorded with a nest containing 3 eggs in casuarinas opposite the railway line – nest supporting 3 eggs located on 22 Oct 2007.

Black-faced Woodswallow

One nest was recorded on 18th November 07 containing 4 eggs. Five adult birds were observed in the care and defence of the nest and eggs. The nest was placed in a small shrub next to the railway line south east of the lake.

Grey Butcherbird

Five active nests were recorded. One nest contained 2 eggs, three nests contained 3 eggs and one nest contained 4 eggs. All nests were located on the 8th Oct 2007, during a survey specifically targeting this species and to map out and compare individual pairs nesting sites over three breeding seasons. These pairs were monitored for three breeding seasons and each pair only raised a single brood per season. Two pairs built their nests in the same tree as in the 2006 breeding season. All nests were located in paper bark trees.

Australian Magpie

Eight active nests were recorded from August to November. Two active nests found in the same tree each contained 3 eggs. One nest was placed 4.5 metres from an active Magpie-lark's nest. All nests were placed in eucalypts and five of the eight nests were located within a 100 metre square block.

Grey Fantail

Two pairs were recorded in scrub land. Both had active nests, one containing eggs and the other a single chick. Nest 1 located on the 6th Oct 2007 supporting 3 freshly laid eggs, second nest located on 26th Nov 2007 supporting a single chick approx 6-7 days old.

Willie Wagtail

Eight pairs were present, all with nests ranging from freshly laid eggs to chicks ready to leave the nest – 4 Nests located on October 26th 2007 two nests each supporting 3 eggs, one nest supported 4 eggs and the other nest supported 3 recently hatched chicks, a further 2 nests were located on the 18th Nov 2007 one nest supported three chicks ready to leave the nest and the other nest supported 1 chick ready to leave the nest, 2 other nests were located on the 21st Nov 2007 one nest supporting 2 recently hatched chicks and the other nest supporting three chicks ready to leave the nest. One active nest was only several metres away from an active Restless Flycatcher nest. All of the Willie Wagtail nests were placed low in paper bark trees and pairs were scattered around the edge of the lake.

Australian Raven

Six active nests recorded around the lake. Two nests located in eucalypts and the other four nests were located in paper bark trees. Only five nests were checked as one nest was inaccessible, though an adult bird was observed sitting during weekly surveys. Of the five nests checked during August only one contained 4 eggs, the other four nests contained 3 eggs.

Restless Flycatcher

One pair, with an active nest containing 3 chicks. Nest located on the 18TH Nov 2007. The nest was placed on a low fork of a paper bark tree near the water's edge, and 4 metres from an active Willie Wagtail's nest.

Magpie-lark

Two active nests were recorded. One was placed in a paper bark tree and the other in a Wandoo. Both nests contained 3 eggs during the August survey (23rd Aug 2007). Only one pair raised a second clutch recorded

on November 18th 2007 November supporting 3 eggs. The Magpie-lark used the same Wandoo tree for three breeding seasons.

Nesting associations with other species were observed and recorded over a three year period. The same tree also supported active nests of Yellow-throated Miner, White-winged Triller, Willie Wagtail and Australian Magpie.

Red-capped Robin

Four pairs were recorded, mostly in paperbark woodland and in low open heath mixed with paperbarks. One active nest containing 2 chicks was recorded in a low paperbark. Nest located on the 9th Sep 2007.

Silvereye

No less than 21 nests recorded. Many pairs were found to nest within 10 - 20 metres of one another with no apparent aggression shown between nesting pairs. This species was found to be the most abundant of the small bird species utilising the different vegetation zones around the lake.

Nest placements varied greatly from 1 to 6 metres above the ground. Out of twenty one nests, thirteen contained either 3 eggs or 3 chicks, five nests contained 2 eggs and three were still under construction.

Extensive surveys were carried out during the breeding season of 2007 to identify and map Silvereye nesting sites around Tom Lake the results are as follows , 6 active nests were recorded during 29th Sep 2007 of these 1 nest was under construction, another 4 nests each supported 3 eggs ,and 1 nest supported 2 eggs, On the 4th Oct 2007 a further 9 nests were recorded of these 5 nests each supported 3 eggs , 2 nests each supported 3 chicks and 2 nests were still under construction, On the 26th Oct 2007 , 6 nests were recorded of these 2 nests each supported 3 chicks, the other 4 nests each supported 2 eggs.

Welcome Swallow

Small flock observed catching insects in association with Tree Martins.

Tree Martin

Small flock catching insects over the surface of the water in association with Welcome Swallows.

Australasian Pipit

Most birds observed in paddocks at the edge of the lake.

Steve Elson