Biosurvey of Tallaringa Conservation Park

Preliminary Notes on Survey Outcomes

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October 2015

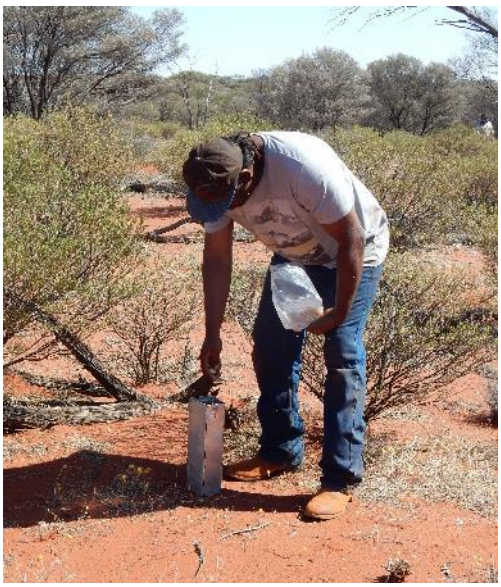
Introduction

A biodiversity survey was conducted by Dave Armstrong (DEWNR), Steve Eldridge and Andrew Schubert (Desert Wildlife Services) and Traditional Owners Barney Lennon, Andrew Dingamen, Chantelle Lennon, Joash Dingamen and Joseph Lennon between September 23rd and October 3rd, 2015. Twelve (12) sites were surveyed, six (6) in the south-western corner and six (6) in the northern section of the park (see map on following page).

Sites were selected to represent the major habitat types occurring within each study area. Fauna at each site was surveyed for three consecutive nights according to standard South Australian Government survey procedure using Elliott traps, funnel traps, pitfall traps and observational bird census. Incidental observations from the wider area were recorded throughout the survey period. Similarly, flora at each site was surveyed using standard SA Government procedure to allow comparison should the sites be re-surveyed in the future.

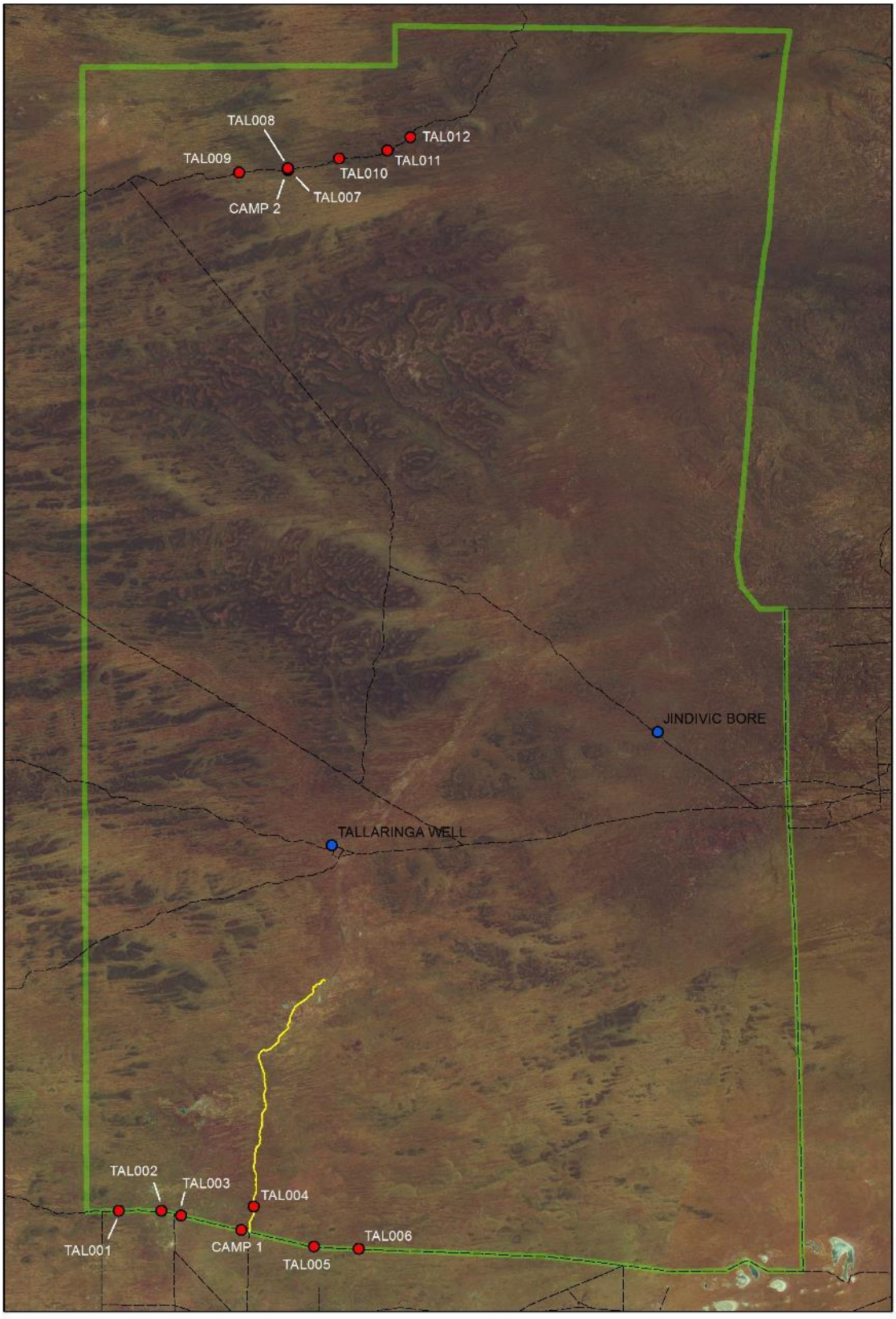
Above: Barney Lennon constructing a line of pitfall traps

Above: Joseph Lennon setting a funnel trap



Above: Joseph Lennon setting an Elliott trap

Above: Joash (Paul) Dingamen preparing a fly-wire drift fence, part of a pitfall trap line


TAL008
TAL012
TAL009
TAL011
TAL010
TAL007
CAMP 2
JINDIVIC BORE
TALLARINGA WELL
TAL002
TAL003
TAL004
TAL001
CAMP 1
TAL006
TAL005
N
0
10
20
30
40
Kilometres
Legend
Survey Site
Tallaringa Boundary
Unmarked Vehicle Track
Existing Vehicle Track

Climatic Conditions

Southern parts of Tallaringa received significant winter rainfall in late May, 2015 and at the time of the survey, flowering annual plants were abundant and a range of nomadic bird species were occupying the area in response to the flush conditions. Many bird and reptile species were actively breeding. Less rain had fallen over northern parts of the park and conditions were generally poorer at these survey sites (TAL007-TAL012).

Above: Mulla Mulla in full bloom at Tallaringa following good winter rains in late May, 2015

Above: A Red Kangaroo in a sea of daisies

Fauna

Several reptile and mammal specimens are yet to be formally identified, but approximately 30 species of reptile, 3 species of small mammal and 70 bird species were recorded during the 10 day survey. This included 7 birds and at least 4 reptiles that had not previously been recorded on the park. The bird list included several nomadic species that would only periodically inhabit Tallaringa when adequate food resources are available. The most noteworthy bird recorded was the rare Chestnut-breasted Whiteface which is seldom observed and one of only two bird species endemic to South Australia. This species had not previously been recorded at Tallaringa.

Above: Thorny Devil

Above: Military Dragon

Above: The rare Chestnut-breasted Whiteface

Above: Bearded Dragon

Above: The nomadic Crimson Chat

Above: A Splendid Fairywren with food for its young

Flora

Flora specimens are currently being identified and the plant species list is yet to be finalised. However, due the rainfall in late May, a relatively large number of species were recorded including many that had not previously been observed in the park. At least 7 mulga species were found to be co-existing in the park and such diversity is rarely seen elsewhere.

Botanically, the most interesting areas occurred along a palaeodrainage line that runs from laterite plateaux in the northwest of the park in a southerly direction through Tallaringa Well to within a few kilometres of the park's southern boundary. The palaeodrainage contains a diverse range of habitats including salt pans, Melaleuca-lined channels, Black Oak woodlands and Mallee. Surface deposits of salt indicate the past existence of springs and soakages along the Palaeodrainage and it is likely that groundwater is still relatively shallow in these areas. Palaeodrainage habitats are likely to provide refuge for native fauna during dry climatic periods. However, they also appear to be favoured by pest animals such as rabbits and camels. Thus, palaeodrainage habitats represent the highest priority for future conservation management within the park. Palaeodrainage habitats can be accessed via a recently constructed vehicle access track that follows the palaeodrainage line from the southern park boundary to within approximately 30km of Tallaringa Well (see above map).

Above: Melaleuca-lined channels occurred along the Palaeodrainage line

Above: Sturt's Desert Pea was observed at several locations in the southern section of the park.

Above: Black Oak woodlands are associated with the Palaeodrainage line at Tallaringa

Above: A heavily browsed Quandong. This species is being severely affected by camels at Tallaringa.

Weeds

No weeds were observed in the survey areas. Buffel Grass was recorded at Relief Bore, approximately 25km north of the Tallaringa boundary on Wintinna Station and vigilance will be required to ensure it does not spread into the park from this population. Central parts of the park were not visited during the survey, however with regular tourist traffic using the Ann Beadell Highway, these areas are at greatest risk of weed invasion.

Pest animals

Rabbits were having a significant impact at the southern survey sites (TAL001-TAL006) and along the palaeodrainage line through the centre of the park. Rabbits currently represent the most significant land management issue at Tallaringa. In some areas, rabbit grazing has prevented mulga recruitment, and where mature trees have been killed by past wildfire, areas of open grassland now occur. As these areas expand, a greater proportion of the park will become prone to the detrimental impacts of wildfire following periods of above average rainfall.

Few camels were observed during the survey, but an abundance of old tracks throughout the park indicates camel abundance has been a lot higher in recent years. Only one quandong tree was recorded during the survey and this individual was severely impacted by camel browsing. No sign of seedlings could be found nearby. Left unmanaged, camel abundance will most likely increase again in the future, and preferred camel food plants such as the quandong are vulnerable to extinction at Tallaringa

Above: Only a few camels were observed during the survey. However, the presence of numerous tracks throughout the park indicate that camel abundance has been much higher on Tallaringa in recent years.

Fire

No evidence of recent fire was observed although some isolated areas had burnt following past high rainfall periods, possibly in the mid to late 1970s.

Traditional Owner Involvement

Six (6) Traditional Owners took part in the second part of the survey (28th September – 2nd October). Most are undertaking a Certificate II course in Conservation and Land Management and were able to use the survey to complete some of the course requirements. All Indigenous participants were actively involved in all aspects of the survey, from establishing pitfall trap lines and setting Elliott and Funnel traps to handling captive animals and rehabilitating survey sites once trapping had finished. All participants were keen, enthusiastic and conscientious and remained so for the entire involvement period.

Above: Looking for animal tracks on the road

Above: Andrew Dingamen constructing a pitfall fence

Above: Putting the finishing touches to a survey site

Above: Processing the day's captures