

# Rare bird surveys, Mt Lyndhurst Station

March 2007



Chestnut-breasted Whiteface at Mt Lyndhurst

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**Government of South Australia**  
South Australian Arid Lands Natural  
Resources Management Board



**Australian Government**

## **SUMMARY**

A significant population of Chestnut-breasted Whitefaces and Thick-billed Grasswrens has been present in the Mt Lyndhurst Mine area since first observed there 20 years ago. Current management of this area appears to be adequate to maintain these populations and alternative management practices are discussed, which may be acted upon according to resources available and should changes in visitor activity or land-use require them. Thick-billed Grasswrens were found at 12 further sites and additional areas of habitat suitable for these grasswrens were observed, spread widely across Mt Lyndhurst Stn.

A short spotlighting survey, near the location where a Plains-wanderer specimen was found in 2006, was not successful in locating further birds however suitable areas of habitat are identified for future searches. A recommendation is made that familiarising local people already working in those habitats with identification features of this species and encouraging them to promptly report accurate locations of sightings will improve knowledge of habitats that this species uses in this region and allow greater efficiency with future research.

## **INTRODUCTION**

Concerns have been expressed that frequent visits by individuals and birdwatching groups to the Mt Lyndhurst mine area may be having an impact on the populations of Chestnut breasted Whiteface and Thick-billed Grasswren and their habitat in the immediate area, that the size and extent of these populations were poorly known and no monitoring was taking place. Chance discovery of a Plains-wanderer on Mt Lyndhurst in 2006 highlighted the need for further information about this cryptic species in this region.

## **BACKGROUND**

Concerns over visitor impact on habitat were first expressed within months of the discovery of the then little known Chestnut breasted Whitefaces at this site in June 1987 (Drummond 1988, Pedler SAOA newsletter No 124 1987), an event which over ensuing weeks, months and years has attracted many local, interstate and international birdwatchers to spend time and/or camp for periods of up to several days there in their personal quest to see and perhaps photograph these little known species. The location was publicised at first through word of mouth and various club newsletters and later in books devoted to guiding birdwatchers to places where they might find certain species (e.g. Thomas & Thomas 1996). This location is included on the itinerary of numerous commercially operated guided birdwatching tours, some of which have previously camped on site, others in accommodation in nearby Lyndhurst or at Mt Lyndhurst Stn.

Studies in 1990 and 1999 (Pedler 1991, 1992, 2000) were aimed at determining the extent of the Mt Lyndhurst population and overall status of Chestnut breasted Whitefaces, with significant populations found at very few other sites in the Marla area and between Coober Pedy and Glendambo, and a few smaller groups found nearby and in the Marree and Oodnadatta Track areas.

Attention of the 'birdwatching community' remained almost entirely focussed on the Mt Lyndhurst population as the easiest place to see these species until some birdwatchers 'discovered' in 2001 that populations (known since 1914, found again in 1990 and reported in Pedler, 1991) were easy to locate along the Stuart Highway near Marla. Impacts from camping at the latter site are less likely to become a problem since it is in open country adjacent a busy highway in the Anangu-Pitjantjara lands. Perhaps fortuitously at about this time camping on the Mt Lyndhurst site began to be actively discouraged by land managers and the number of visitors to this site may have reduced. Actual

numbers of people visiting these sites and any changes in their behaviour over this period may be impossible to determine. These activities can be traced from numerous *ad hoc* observations and accounts of sightings which appear in various newsletters (Bird Observers Club, Wingspan, Birds SA Newsletter) and numerous atlas records (Birds Australia Atlas, Marchant & Higgins 2003), most of which have contributed little towards further knowledge of these species other than their continued presence in these areas.

Direct impact of any activities may be near impossible to quantify for species which are hard to detect, have populations which are widely dispersed and may fluctuate in number and their use of some sites according to seasonal conditions, especially as the level of human visitation and impact may also fluctuate considerably. Potential impacts are numerous (e.g. wandering vehicles damaging habitat, firewood collecting, scavenging birds and animals attracted to campsites, litter, food scraps and human waste, repeated or prolonged observations of some nest events, repeated playback of territorial calls, illegal egg collecting) but some are relatively simple to control. Some consideration must also be given to impacts of feral animals and livestock grazing and activity associated with maintenance of the Strzelecki Track which passes through the site,

The present land managers erected 'no camping' signs in 2003 and made it known to visitors and indirectly to several birdwatching groups (see Taylor 2005) that this was due to their concern for the habitat of these birds. This level of intervention appears to have been sufficient to halt camping on the site without the need for fences or other barriers.

Following the discovery of the desiccated body of a female Plains-wanderer, caught on barbed wire of the boundary fence with Mt Freeling Stn in early 2006 by Mark Scammell, an assessment of potential habitats for this species in the region was needed. Elsewhere in Australia the species occupies very open habitats with short sparse vegetation and this includes gibber habitats with Bindii *Sclerolaena* sp. and Mitchell grass tussocks (NPWS, 2002; Bellchambers and Baker-Gabb, 2006; L. Pedler, pers. Obs.).

## **RESULTS OF MARCH 2007 SURVEY**

### **CHESTNUT BREASTED WHITEFACE *APHELOCEPHALA PECTORALIS***

Searches by three or four observers walking about 100 -150m apart, using taped calls of this species played at intervals, were made on 27 and 28 March, within the 4 x 3 km area studied during 1990 and 1999 around the Mt Lyndhurst Mine. It is estimated that 8km<sup>2</sup> were searched with this method within the above area and while it is likely that some individuals were overlooked due to wind and light rain, a minimum of 30 Chestnut breasted Whitefaces were seen at 13 sites. Most were in pairs. One group of six and another of three were seen, while a single bird was watched for several minutes foraging in the vicinity of a lone male White-winged Fairy Wren. It seems possible that this bird had a mate on a nearby nest but a brief search was not successful. Responses by several of the paired whitefaces to the taped calls (immediate approach, calling and brief song) suggested territorial behaviour and possible breeding activity.

A search over two days in approximately the same area in July 1999, by two observers, found six groups of Chestnut breasted Whitefaces totalling at least 27 birds. Conditions had been dry for the previous year and these birds did not respond to taped calls so some others may have been missed.

In the absence of more detailed population studies the numbers found in 1999 and (also after a series of dry seasons) in 2007, are reasonably similar. The larger population estimate of 70 birds\*, made in 1990 was after several seasons with evidence of successful breeding and was expected to fall during dry seasons. (\* from repeated searches of up to 11km<sup>2</sup> )

Some comparison of differences between 1990 and present habitat are possible from a small series of photographs for which locations were recorded and further photographs taken in March 2007. The most obvious changes are in the reduction in amount of grass forbs and small annual herbs as expected when comparing habitats in favourable seasons with dry conditions, while there appears to have been little change in perennial shrub cover.

Another area of low stony hills with sparse Low Bluebush, ~4km east of Mt Curtiss Creek, where Chestnut breasted Whitefaces were found in 1990, was searched on 29 March 2007 by 4 observers in clear but moderately windy conditions without a definite sighting. A single small bird, possibly this species, was seen briefly by one observer but not found again.

A new locality for the Chestnut breasted Whiteface was found on 31 March 2007, 2km west from Doughboy Bore, in extensive Low Bluebush on stony hills. This is approximately 5km north of the known population in the Mt Lyndhurst Mine area. Two whitefaces responded briefly to taped calls and others may have been in this area as a thorough search was not made.

Other areas of potentially suitable habitat (resembling the low stony hills with Low Bluebush of the Mt Lyndhurst Mine area) were noted extending north-eastwards from the latter area towards Leslie Mine and in gully systems approximately 3- 6 km west from Agnowie Dam. Brief searches of these areas did not locate whitefaces however these areas may hold small populations or be occupied following favourable breeding periods with expansion of core populations.

#### **THICK-BILLED GRASSWREN *AMYTORNIS TEXTILIS (MODESTUS)***

Observations of at least 20 Thick billed Grasswrens were made at 12 sites while searching the Mt Lyndhurst Mine area (see above) and two active nests were found, both with 2 eggs (one egg was newly hatched on 30 March, the other nest was not examined again, 40 mm of rain which fell on 20 January is likely to have triggered breeding activity). It is likely that in this area, most of the six grasswrens seen singly, were actually paired birds with the mate remaining hidden (possibly on further nests) as detailed searching was not carried out once a grasswren was identified and its location recorded. Also it is likely that further pairs or individuals were overlooked within the area of approximately 8km<sup>2</sup> searched due to the species retiring behaviour and only brief or distant scrutiny of denser shrub areas along several drainage lines.

Other locations (6) on Mt Lyndhurst Stn where grasswrens had been recorded previously (LP pers obs, A Black in litt) were searched and opportunistic searches of further apparently suitable habitat were made using playback of Grasswren calls and song. This resulted in observation of at least 18 grasswrens at a further 12 sites widely distributed in a variety of chenopod shrub habitats across Mt Lyndhurst Stn. (Habitat measurements were made at the location of 9 of these sightings as part of a separate ongoing study).

A wide range of chenopod shrub habitats is used by Thick-billed Grasswrens on Mt Lyndhurst Stn and the number and distribution of grasswrens found, together with observation of numerous further areas of similar habitat not searched, suggests that the species is moderately common over most of the property but absent from expanses of open gibber without perennial shrubs.

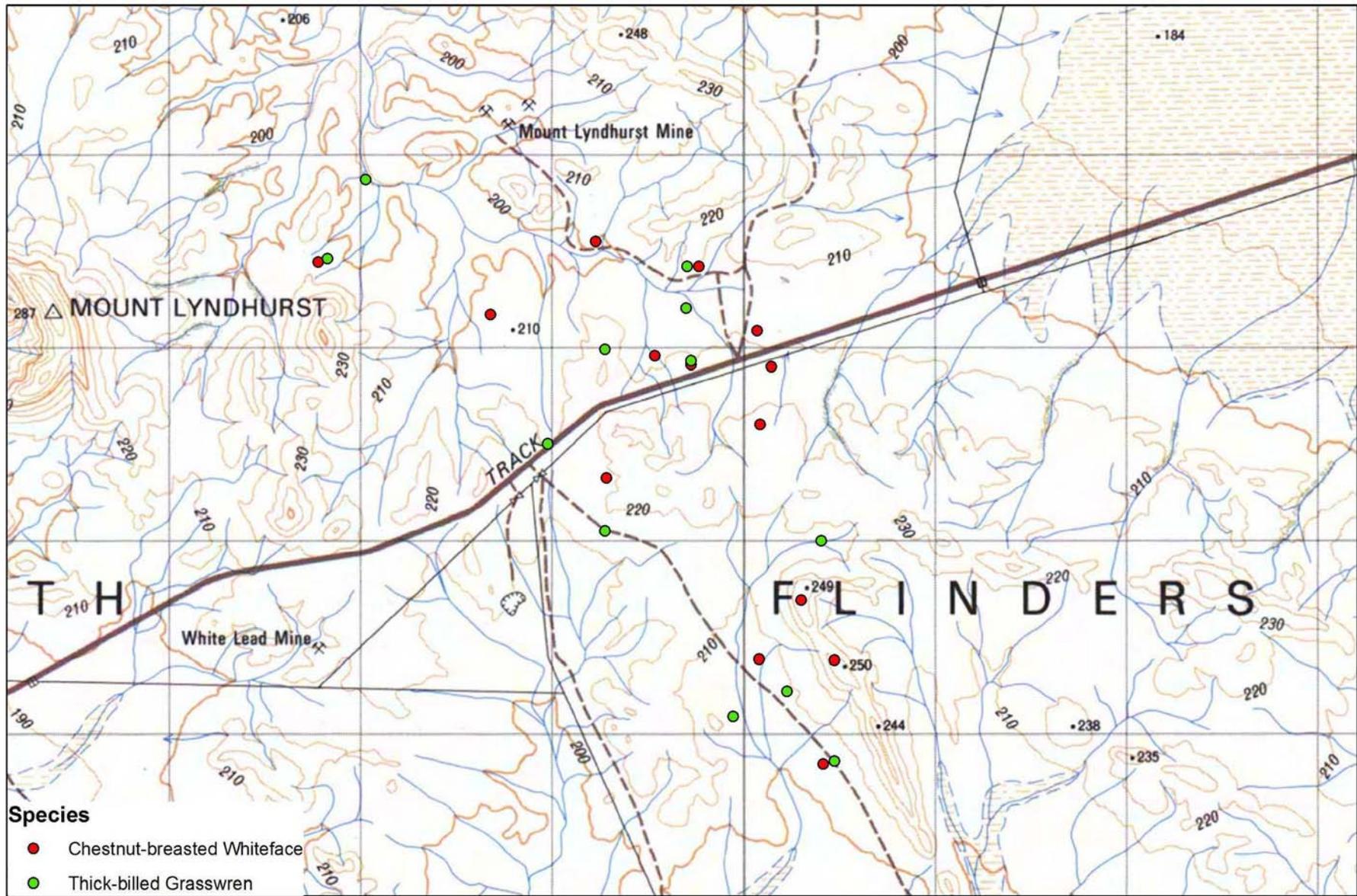


Figure 1: Location of observed Thick-billed Grasswren and Chestnut-breasted Whiteface around Mt Lyndhurst Mine area.

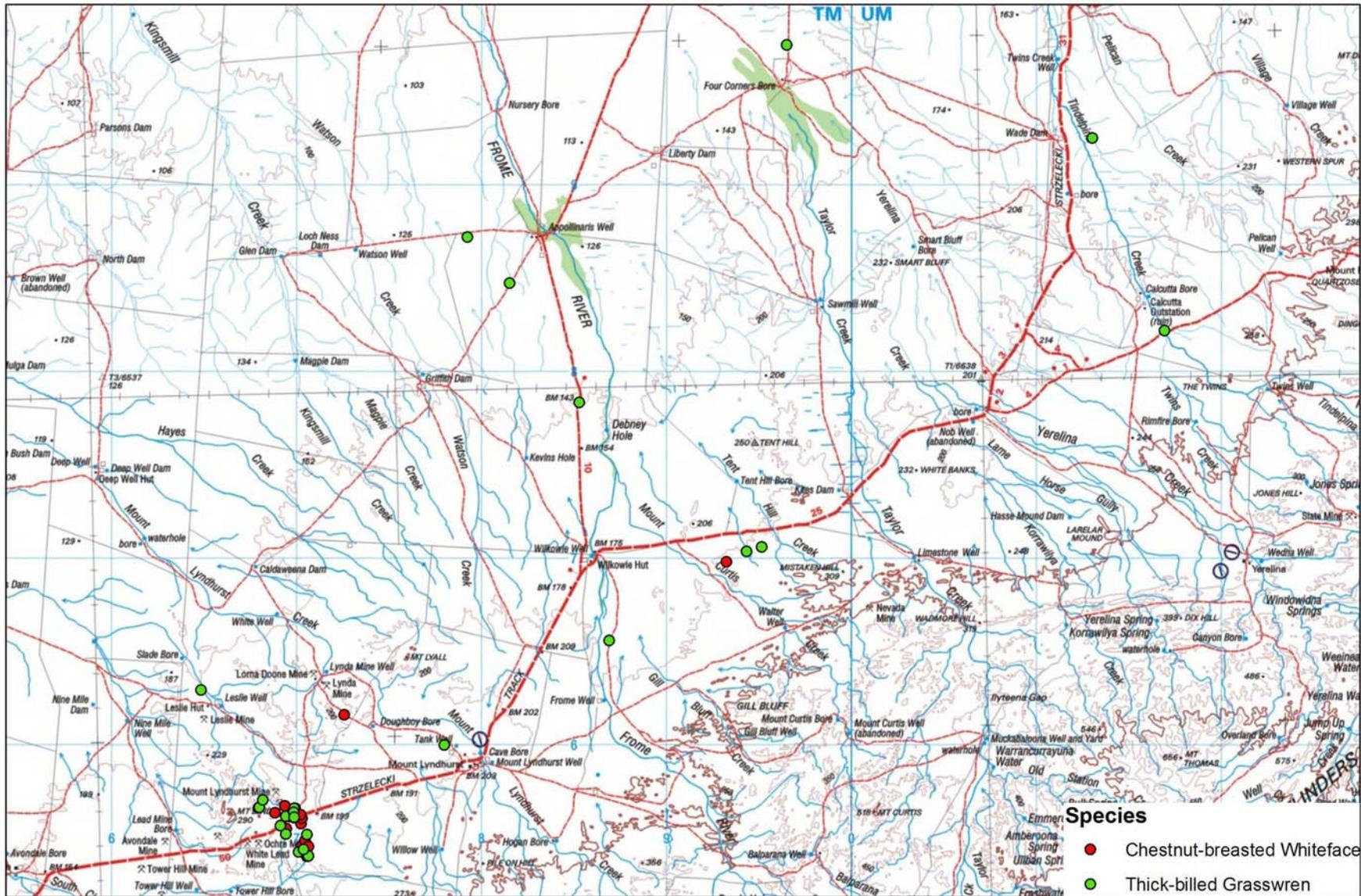


Figure 2: Location of observed Thick-billed Grasswren and Chestnut-breasted Whiteface on Mt Lyndhurst Station.



Thick-billed Grasswren. Myrtle Springs Station.

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Habitats occupied included Blackbush *Maeriana pyramidata* and Cottonbush *Maeriana aphylla*, usually in depressions, along watercourses or on more extensive floodplains. In some places such as along minor drainages among low stony hills, the above shrubs were in narrow strips or patches, mixed with Low Bluebush *Maeriana astrotricha*, Spiny Saltbush *Rhagodia spinescens* and other shrubs such as Eremophila *freelingi*. Old-man Saltbush *Atriplex nummularia* areas on some floodplains may also be occupied by grasswrens as they have been previously observed in this habitat elsewhere in the Leigh Creek / Marree district (L. Pedler pers obs).

### **PLAINS-WANDERER *PEDIONOMUS TORQUATUS***

Spotlight searching was carried out on evenings of 26 and 27 March from existing tracks passing through suitable open gibber habitat areas east from Mt Lyndhurst Homestead and along the Mt Freeling boundary around the site where the specimen was found. While some live herbage comprising mainly bindii *Sclerolaena sp* was present and insect/invertebrate activity seen, no small birds, small mammals or reptiles were seen in the extensive gibber areas while spotlighting.

The single Plains Wanderer that was observed during surveys at Boolcoomatta Station in 2006 was located in low open chenopod shrubland (less than 25 cm in height) on heavy red clay soil. Dominant plant species in the area were *Sclerolaena tricuspis*, *S. patenticuspis*, *Atriplex stipitata*, *A. vesicaria* and *Eriochiton sclerolaenoides*. A number of grasses including *Astrebla pectinata*, *Austrostipa sp* and *Eragrostis sp* were also present at the site (Bellchambers and Baker-Gabb, 2006).

Other areas of apparently suitable habitat were noted while travelling elsewhere on Mt Lyndhurst and these are briefly outlined below :

“westwards from Apollinaris Bore towards Lochness Dam and southwards to Griffiths Dam and Caldaweena Dam” ;

“Woodgate Bore towards Agnowie Dam and around Christmas Dam”;

“Padlock Dam towards Fontenoy Well and southwards to the area around Primrose Dam”:

“between Avondale H.S. and Strzelecki Track”.

(also further areas of similar habitat may be present beyond these areas visited).

Surprisingly there were no observations of Gibberbirds or Inland Dotterels during this survey period however Banded Lapwings, a species sometimes noted as occurring in similar habitat to Plains-wanderers were seen in two places on gibber near Apollinaris Bore.

Future opportunistic spotlighting in these areas and in similar habitats on nearby properties may locate Plains-wanderers. However it is suggested that the most effective means of locating populations of Plains-wanderers in this region is to alert people already working in these habitats (e.g. while mustering or kangaroo shooting) to the identification features and habits of the species and the importance of promptly reporting possible sightings with accurate location details. Once a small series of sightings is made searches can be much more efficiently targeted to determine extent of populations and accurately define habitats being used.

Ehmann (2000, 2005) refers to observations near Mirra Mitta Bore and on Andamooka Station. Habitats in these latter areas which include extensive open gibber with short herbage dominated by *Sclerolaena sp.* should be included in future searches which may be aimed at determining the status of Plains-wanderers in northern SA.

A short list of references is given here for further reading, concerning historical observations, distribution, behaviour, methods for locating Plains-wanderers (Bennett 1983, Baker-Gabb, 1987, 1989, Baker-Gabb et al 1990, Marchant & Higgins 1993, Bellchambers and Baker-Gabb, 2006, NPWS, 2002)

## **RECOMMENDATIONS FOR MANAGEMENT**

### **Visitor Management**

Options to minimise visitor impact on birds in this area can include education and/or physical barriers and a combination of these may enhance the experience for the visitor while reducing their impact on site. Educational material can be provided as brochures posters or signs at Mt Lyndhurst Stn, in facilities or businesses in Lyndhurst and published in birdwatching newsletters and websites and popular wildlife magazines.

### **Land Management**

Maintenance of the perennial shrub habitat is the most important factor in conserving populations of Chestnut breasted Whitefaces and Thick-billed Grasswrens. The relatively low impact of current levels of livestock grazing on the habitat around Mt Lyndhurst mine appears to be compatible with the continued presence of Chestnut breasted Whitefaces and Thick-billed Grasswrens. For any proposed changes to the stocking rate, changes to waterpoints or type of stock grazed, careful consideration should be given to their effect on perennial shrublands in the vicinity of known Chestnut breasted Whiteface populations.

Road maintenance activity with extensive areas cleared for road material has destroyed several hectares of low bluebush habitat within the area near Mt Lyndhurst mine. It may be possible with consultation with Transport SA to locate future borrow pits outside the low bluebush habitat.

It may be possible (if a designated camping area is considered necessary) to rehabilitate an existing borrow pit and its access track (opposite the gate at western end of Willow Paddock) for this purpose. Some levelling of the previously cleared areas would be necessary, with a fenced perimeter to restrict vehicle wanderings. A pit or composting toilet and shade/shelter roof could be provided, with rainwater tank, and interpretive displays, and if cost recovery or controls on access is desired a

locked gate with key available at Mt Lyndhurst or in Lyndhurst for a fee, would be possible. Clearly a 'gas fires only' rule would need to apply and perhaps 'take all your own rubbish away with you' rule as well. If the suggested site is selected any buildings and campsites could be of low visual impact and out of view of the main road.

Reduction in fox populations by widespread baiting has been suggested as a reason for increases in populations of Short-tailed Grasswrens in the Flinders Ranges and Thick billed Grasswrens in the north Olary Plains region (G carpenter pers comm, ) and this may also benefit Plains-wanderer populations. Baker-Gabb *et al* (1990) suggested that fox predation may not be having a significant impact on Plains-wanderer populations studied in New South Wales, however they also noted that Plains-wanderer remains had been found in Fox stomach contents. Some caution is also needed when planning Fox control programs however, as with reduced competition and predation from foxes, numbers of feral cats and rabbits can increase. High numbers of rabbits have been shown to damage or kill perennial shrubs which are important in the habitat of grasswrens and Whitefaces. It is recommended that if fox baiting is carried out then regular spotlighting to monitor and control cat and rabbit populations around known Chestnut breasted Whiteface populations should also be undertaken. Baiting of small areas or at infrequent intervals may be ineffective in reducing fox populations.

If foxes or cats are shot it is important to examine and identify stomach contents as this will help determine their real local impacts on native wildlife and refine local management actions. For example while diets are likely to vary with different seasons, it may be found that they are living mainly on rabbits or small native mammals, reptiles or birds and this may provide valuable information about existing threats to Plains Wanderers, Thick-billed Grasswrens and Chestnut-breasted Whitefaces in the area.

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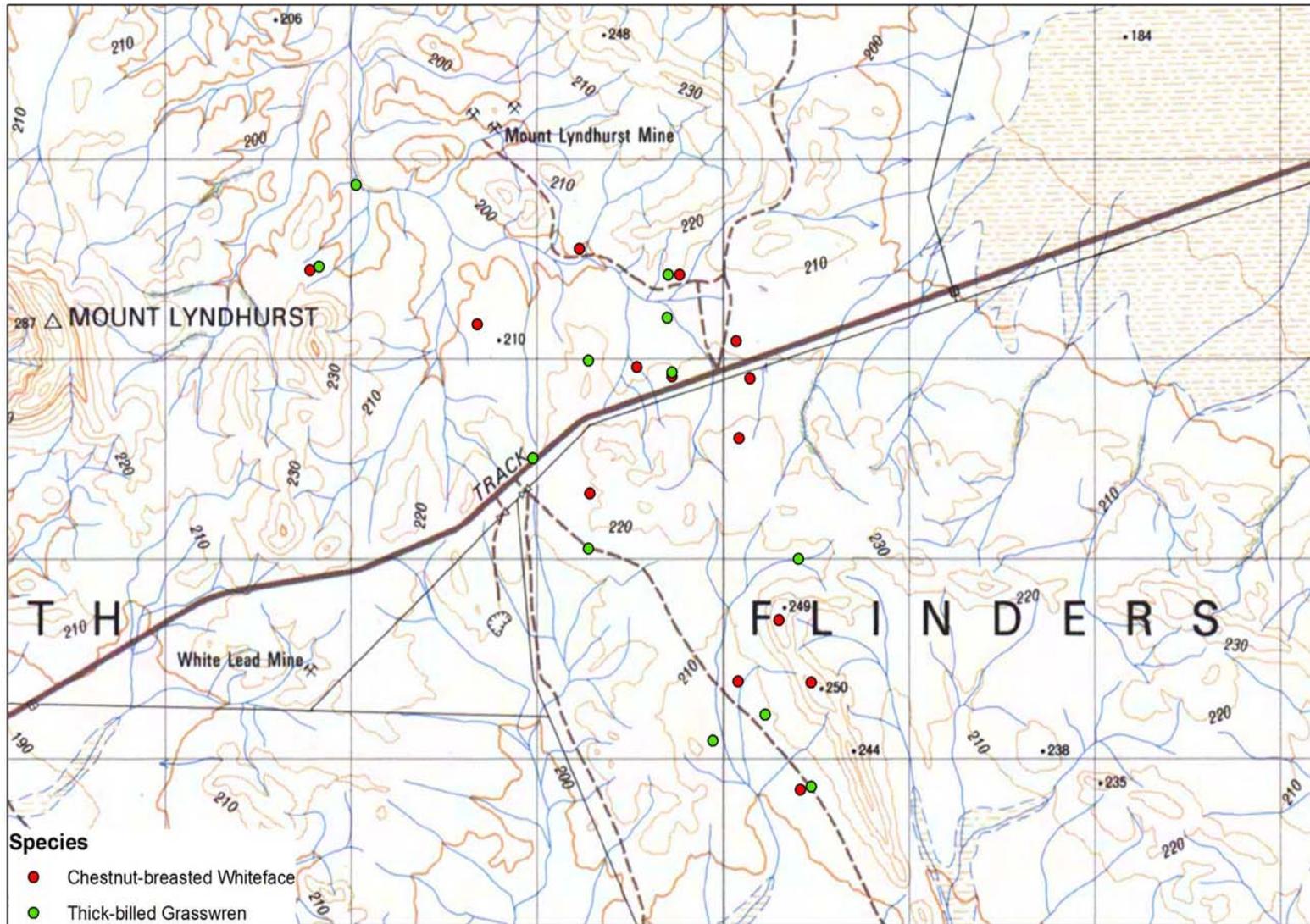


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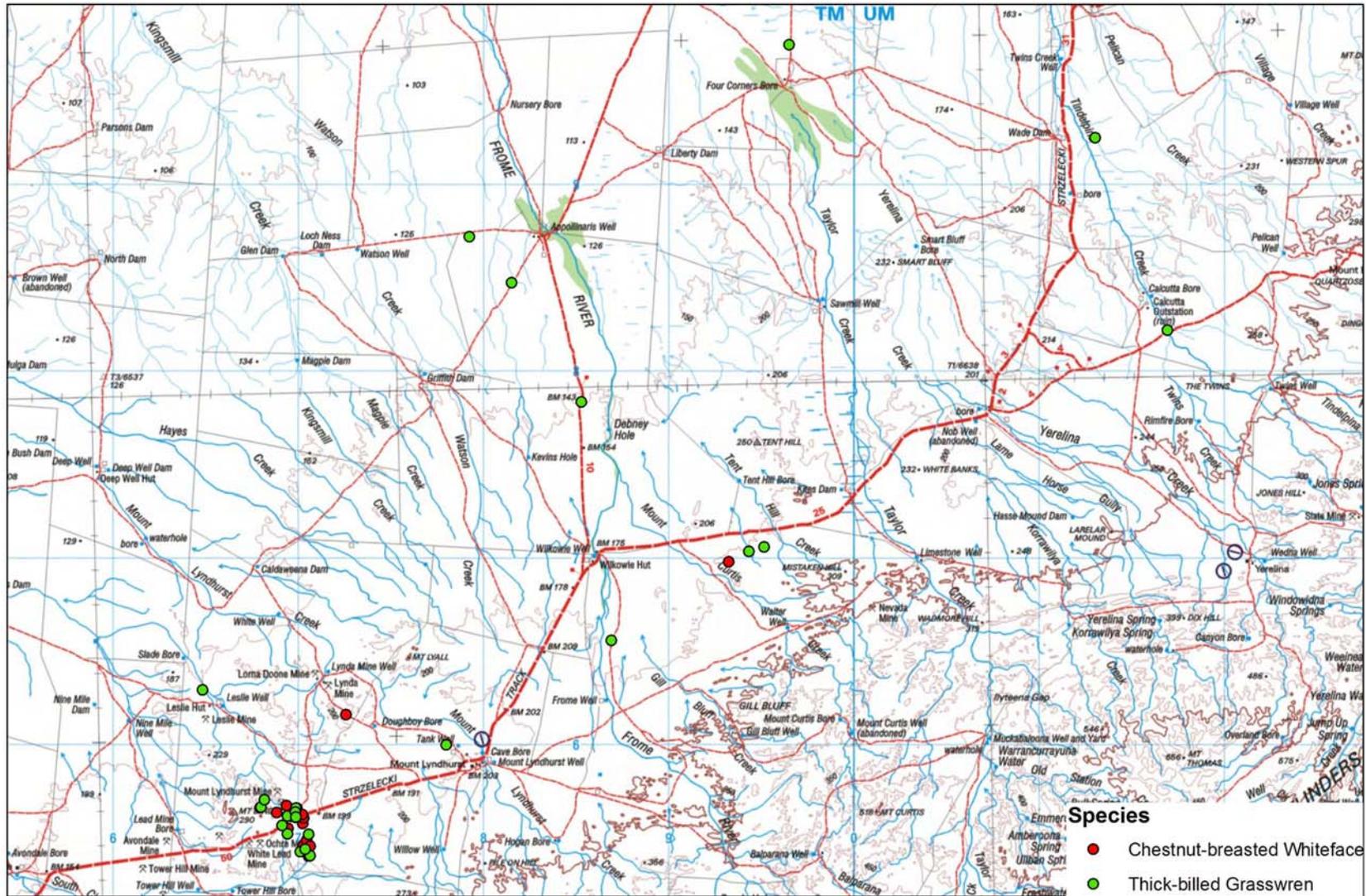


Figure 2: Location of observed Thick-billed Grasswren and Chestnut-breasted Whiteface on Mt Lyndhurst Station.

