

18 December 2017

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Dear Michael

Offset Site Report: Bellchambers offset site, Golden Sun Moth survey
Project no. 25346

Introduction

A targeted survey was undertaken for Golden Sun Moth *Synemon plana* on part of the Bellchambers property in Shelford, approximately 40 km south of Ballarat. This portion of the Bellchambers property has been identified as a potential offset site for impacts to Natural Temperate Grassland of the Victorian Volcanic Plain community (NTGVVP) associated with the development at 165 O'Herns Road, Epping (Referral 2017/7930). The purpose of the survey was to confirm the presence of a Golden Sun Moth (GSM) population within the potential offset area and provide a general assessment of the site as NTGVVP.

Methods

The area surveyed is bounded by to the west by Shelford-Mt Mercer Road and to the north by the Gundies Road Reserve (Figure 1).

A transect survey was undertaken by Daniel Gilmore on 15 December 2017 between 1200 and 1400 hours, during conditions that were suitable for detection of Golden Sun Moth (approximately 24°C, sunny and with a light north-westerly wind). Golden Sun Moth were recorded flying elsewhere on the Victorian Volcanic Plain on the same day confirming that conditions were suitable for survey (Biosis Pty Ltd, unpublished data). The extent and general condition of NTGVVP within the site was also assessed.

Results

Large numbers of male Golden Sun Moth (GSM) were observed flying throughout the surveyed area (Table 1, Figure 1). The site supports contiguous areas of moderate to high quality NTGVVP with an abundance of GSM larval food plants. The entire area surveyed and contiguous areas to the south and east are considered to support GSM, its habitat and vegetation satisfying the definition of NTGVVP.

Discussion

The species is known to occur elsewhere on the Bellchambers property (Brett Lane and Associates 2017) but there are as yet no confirmed records from the Bellchambers property in the Victorian Biodiversity Atlas. There are records elsewhere in the local area including private land north of the Mt Mercer Nature Conservation Reserve and private land in the Warrambine area (VBA 2017) and the Shelford area is considered likely to support numerous populations of the species on both public and private land.

Table 1. Golden Sun Moth survey results, Bellchambers Property

Date	Observer	Survey method	Start time	Finish time	Approx. area of survey	No. of GSM Noted	Notes	Other rare or threatened species observed
15 December 2017	Daniel Gilmore	Transect	1200	1400	10 ha	130	The area supports high quality GSM habitat with an abundance of larval food plants including wallaby-grasses and Spear-grasses.	Small Scurf-pea <i>Cullen parvum</i> (endangered in Victoria and listed under the <i>Flora and Fauna Guarantee Act 1988</i>)

Conclusion

The current survey confirms the portion of the Bellchambers property being investigated as a potential offset site for the development of Alliance Business Park at 165 O'Herns Road Epping supports a large GSM population, high quality habitat for this species and an extensive area of moderate to high quality NTGVVP. It is therefore considered suitable as an offset site for GSM and the NTGVVP community.

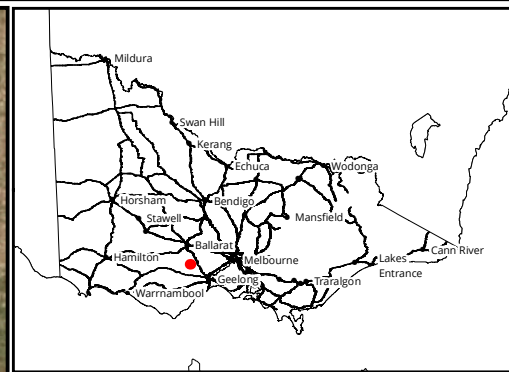
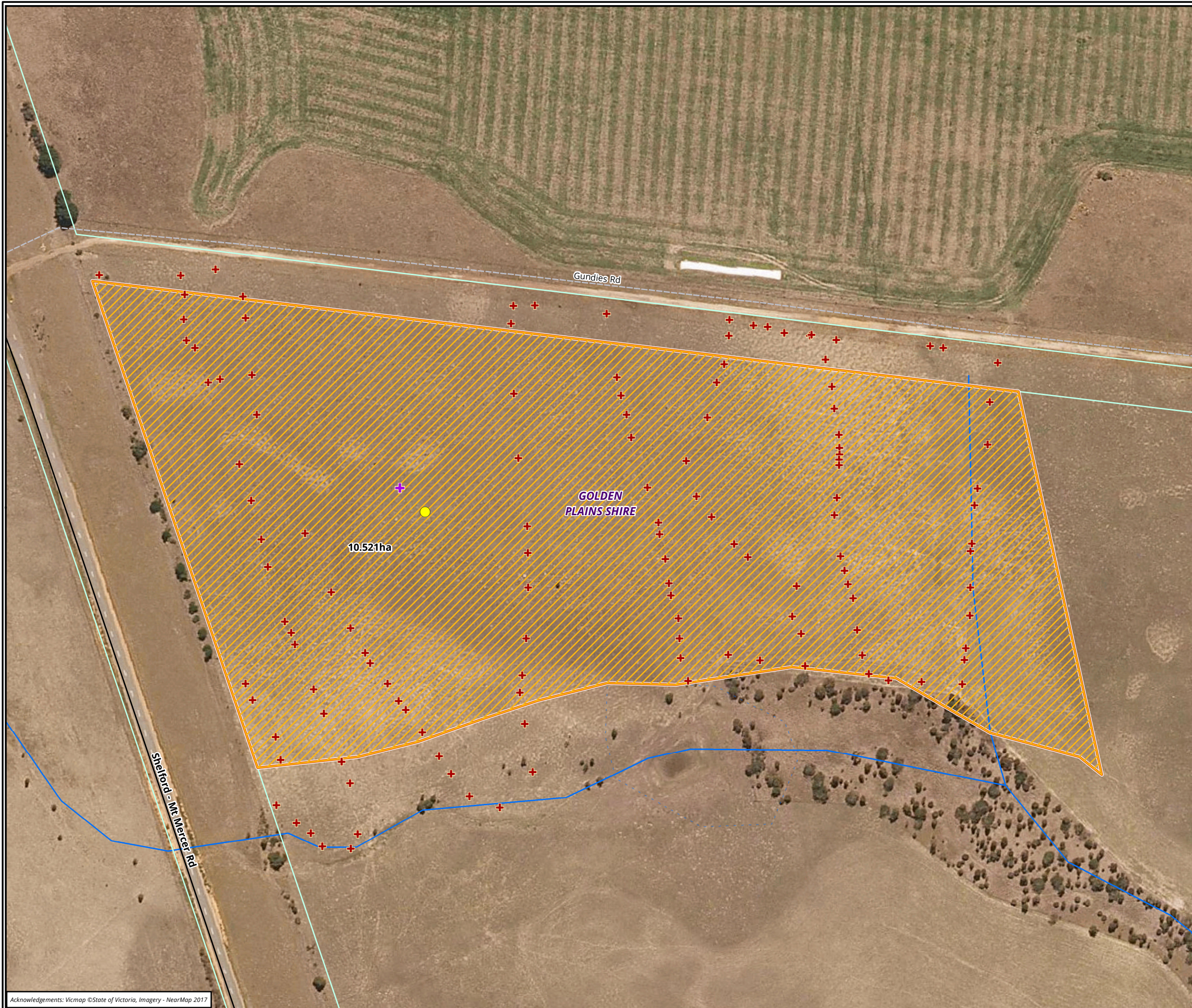
Please contact me on 8686 4812 if you would like to discuss further.

Yours sincerely

Daniel Gilmore
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References

Brett Lane and Associates (BL&A) 2017. Bellchambers Property, Shelford: Golden Sun Moth Targeted Survey. Unpublished report. BLA, Hawthorn.



- Legend**
- Study area
 - Natural Temperate Grassland
 - Golden Sun Moth 15/12/2017
 - Small Scurf-pea *Cullen parvum*
 - Photo point

Figure 1: Location of the Bellchambers offset site and GSM observed within this area

0 20 40 60 80 100
Metres
Scale: 1:2,000 @ A3
Coordinate System: GDA 1994 MGA Zone 55

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