



**CONSERVATION
COUNCIL** ACT REGION

Submission to Department of Agriculture, Water and the Environment: Listing Eligibility and Conservation Actions for Golden Sun Moth

February 2021

The Conservation Council ACT Region is the peak non-government environment organisation for the Canberra region. Since 1981, we have spoken up for a healthy environment and a sustainable future for our region. We harness the collective energy, expertise and experience of our more than 40 member groups to promote sound policy and action on the environment.

We campaign for a safe climate, to protect biodiversity in our urban and natural areas, to protect and enhance our waterways, reduce waste, and promote sustainable transport and planning for our city. Working in the ACT and region to influence governments and build widespread support within the community and business, we put forward evidence-based solutions and innovative ideas for how we can live sustainably.

At a time when we need to reimagine a better future, we understand that the changes we need will only happen with the collective support of our community.

For further information please contact:

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Introduction

The Conservation Council welcomes the opportunity to comment on the eligibility of the Golden Sun Moth (GSM) for inclusion on the *Environment Protection and Biodiversity Conservation Act 1999* threatened species list and necessary conservation actions for the species. The Council's feedback relates to consultation questions 7 and 23.

Part 1: Question 7

Do you consider the way the population size has been derived to be appropriate? Do you accept the estimate of the total population size of the species? If not, please provide justification for your response.

The consultation document on Listing Eligibility and Conservation Actions for *Synemon plana* (Golden Sun Moth) is thorough and collates useful data about Golden Sun Moth populations in Australia, including in Victoria and the ACT. However, it is evident that there is still a lot of uncertainty relating to Golden Sun Moth ecology, its adaptation abilities and the impacts that current and increasing threats such as climate change will have on its long-term survival.

For instance, the underground life stages of the GSM are not well understood (p.7); it is unknown whether the GSM can utilise other exotic grass species for their critical life stages (p.25); and the trends of 5 threats in Table 1 are listed as unknown (p.8-12). There are also other uncertainties, such as whether feeding on Chilean Needle Grass or Serrated Tussock affects the fertility of emerging moths, the success rates of males locating females for reproduction, and how the species responds to differing management strategies (there is no evidence that populations in highly managed offset areas are increasing).

A precautionary approach should be taken with regard to population estimates, especially considering that GSM is listed as a threatened species within all jurisdictions that have GSM populations (Victoria, NSW, ACT). If the GSM listing is to be downgraded from critically endangered, it would be more appropriate to align the listing with GSM state and territory legislation, of which the majority (two of three jurisdictions) list GSM as an 'endangered' species. Better yet, it would be useful to action the 'conservation and recovery actions' (p.13-16) to attain a greater understanding of GSM populations and the threats before altering the GSM listing.

Recommendations

1. Consider actioning the 'conservation and recovery actions' (p.13-16) to attain a greater understanding of GSM populations and the threats before altering the GSM listing.
2. In the case of changing the listing, streamline the listing with GSM state and territory legislation.

Part 2: Question 22

Do you consider that all major threats have been identified and described adequately?

There are various threats to GSM and its habitat, but the greatest direct threat to GSM in the ACT and arguably elsewhere is the clearance or disturbance of habitat for urban development.¹ This is understated in the consultation document.

There is approximately 1800 hectares of suitable or potential habitat for GSM in the ACT³, yet 44% is still outside ACT conservation areas² and thus is not yet protected. In the last decade, over 20% of the species habitat within the ACT has been destroyed and there are still current development proposals over large habitat areas such as Lawson North grasslands and in the vicinity of Canberra Airport.

It is indicative that both Natural Temperate Grasslands and Yellow Box-Blakely's Red Gum Grassy Woodlands - key habitats for GSM in the ACT³ - are now critically endangered under ACT and national environmental laws, with less than 1% of Natural Temperate Grasslands left in the ACT compared to their pre-European distribution.⁴

The threat of weed invasion is also understated in the consultation document. Invasive plants such as African Lovegrass are a significant issue in the ACT, with this threat increasing following the 2020 bushfire. Management of these species requires ongoing funding and management, both of which are missing from many GSM habitats in the ACT.

Although GSM have been recorded to utilise invasive weed species like Chilean Needle Grass, there is insufficient data to effectively document the long term implications that these species might have on GSM.

¹ Mulvaney, M (2012). 'Golden Sun Moth (GSM) ACT Strategic Conservation Management Plan' (p.15).

² Commissioner for Sustainability and the Environment, 2019. *ACT State of the Environment - 2019 Report*, (p.240).

³ *Nature Conservation (Golden Sun Moth) Conservation Advice 2020* (ACT)

⁴ Commissioner for Sustainability and the Environment, 2019. *ACT State of the Environment - 2019 Report*, (p.210).

Other threats that should also be considered include lack of weed management programs for invasive weeds such as Chilean Needle Grass, and the 'shading of habitats by plants and buildings' which could alter the ideal soil temperature and moisture necessary for the lifecycle of a Golden Sun Moth.⁵

Recommendations

3. Consider the impacts of other threats including other 'conservation programs' that may conflict with good conservation outcomes for GSM, and the shading of habitat which could alter soil temperature and ultimately affect GSM reproduction rates.

⁵ Nature Conservation (Golden Sun Moth) Conservation Advice 2020 (ACT)