

Graceful sun-moth results 2011

By Matt Williams

Many surveys for the endangered graceful sun-moth (GSM, *Synemon gratiosa*) have been conducted during recent years by volunteers, DEC staff and environmental consultants. A total of 189 sites have been searched, with the GSM found at 63. The majority of GSM sites are in coastal heathland habitat from Binningup to Kalbarri, where the GSM breeds on *Lomandra maritima*. Only 14 sites have been found in banksia woodland habitat – all in the Perth metropolitan region. Special thanks to all those who undertook surveys but did not see any GSM – these surveys are particularly valuable in determining the GSM's habitat requirements.

Genetic analysis has confirmed that all of the populations comprise a single species. The sun-moths found by Jean and Fred Hort in the eastern jarrah forest result from hybridisation between the GSM and its inland relative, *Synemon icaria*. Five larvae collected from Shark Bay turned out to be something completely different – probably moths, but from an unknown family. Four small populations found near Kalbarri are GSM, but genetically distinct from the southern populations.



Fred (left) and Andy sampling for the graceful sun-moth at Wandoo National Park. Photo – Jean Hort

The results of the surveys have enabled a re-assessment of the conservation status of the GSM. Detailed results of the surveys, genetic analysis and conservation assessment will be released on DEC's website at www.dec.wa.gov.au/content/view/5695/1808/ as soon as these are finalised.

DEC is planning to conduct more surveys for the GSM in February and March 2012, with the main focus being the large conservation reserves between Wilbinga and Jurien Bay. For more information email matthew.williams@dec.wa.gov.au.