

Symposium Presentation No. 2B

# Conservation of Squirrel Gliders: A SWOT analysis and ten points for action

## **Mason Crane**

Fenner School of Environment and Society, Australian National University, Canberra

*Mason did not have time to fully deliver this part of his talk at the Symposium, but we think it worth providing as the basis for further discussion. The statements below are transcribed directly from his presentation slides. The material will be in a paper currently in preparation.*

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## **Strengths**

- The Squirrel Glider is a charismatic creature which is held in high regard by many rural communities.
- The vegetation along the roadsides and travelling stock route networks, together with riparian vegetation provide a good level of landscape connectivity and often quality habitat in many places.
- Scattered paddock trees are a countryside element of disproportional value and are still relatively common.
- High quality ecological data on southern Squirrel Glider populations is available from work by numerous authors.
- The species has a high level of legislative protection as it is listed as endangered or vulnerable under the relevant State acts.
- Attitude towards conservation in rural communities is relatively good .
- Appropriate State agencies exist who could implement required on-ground actions (Local Land Services – New South Wales, Catchment Management Authorities - Victoria and Natural Resource Management Boards – South Australia).
- An Action Statement for the conservation of the Squirrel Glider has been developed in Victoria.

## **Weaknesses**

- There is a lack of recognition of the two distinct populations in NSW.
- Low level of awareness of the Squirrel Glider and its habitat requirements amongst the general community.
- The high value of other land uses can often conflict with glider conservation.
- A disconnect between land management agencies and the scientific community, resulting in the slow uptake of the most recent research findings.
- Low level of legislative protection of scattered paddock trees.
- Lack of species recovery planning at regional level.
- No recovery plans have been developed for the species in NSW or SA.
- Limited opportunities to conduct habitat restoration work on road reserves.
- Lack of data to indicate population trajectories.
- Lack of presence/absence data .
- The key habitats for this species are mature and over mature eucalypts, this habitat is not replaceable in the short to medium term.
- This southern population has been shown to have low effective population size that was already in decline before European settlement.

## **Opportunities**

- Maintain and enhance habitat quality and connectivity of the travelling stock network of reserves and routes, riparian corridors and road networks.
- Focus restoration and revegetation around paddock trees.
- Recruit scattered paddock trees into landscapes.
- Protect or establish connectivity between habitats particularly between major corridors and other habitats.
- Protect or establish connectivity across topographic locations such as between the mesic parts of the landscape and drier more elevated parts of the landscape.
- Give priority to restoration and revegetation of habitats in the lower, more productive parts of the landscape.
- Establish tree and shrub (some non-indigenous) species in revegetation to give short to medium term foraging value eg. Spotted Gum, Silver Wattle.
- Use the Squirrel Glider as an icon species to promote conservation work particularly at a landscape level.
- Improved nest box design and installation.
- Strategic nest box use.
- Increase awareness of Squirrel Glider conservation among the general public.
- Increase awareness of Squirrel Glider conservation, particularly regarding the importance of large trees, amongst land managers. ie. farmers, local councils, government agencies and authorities, country fire services.
- Use appropriate native plantation forestry (agroforestry & industrial plantation establishment) to provide additional habitat.

## **Threats**

- Increasing use of the road network, resulting in road widening and increased clearing of often old growth vegetation.
- Increased safety concerns to road users from roadside vegetation, resulting in clearing of often old growth vegetation.
- Intensification of agricultural practices threatening on-farm woodland remnants and scattered trees.
- Lack of recruitment of large and hollow trees.
- Decline in scattered paddock trees in many landscapes.
- Fire (wildfire and management burns) destroying large and hollow trees.
- Legal and illegal logging, particularly the collection of firewood.
- Culture of cleaning up paddocks and removing dead trees.
- The removal of large trees particularly hollow bearing trees, over concerns to public safety.
- Genetic isolation through habitat fragmentation.
- Competition for hollows by other species particularly European honey bees.
- Belief that the loss of hollow bearing trees can be offset by nest boxes.
- Increased encounters with fencing leading to entanglement in barbed wire.
- Apathy and a continued lack of strategic conservation planning.

## **Ten points for action**

1. In legislation, recognise the southern population as a distinct population and elevate its status to endangered in NSW and federally.
2. Conduct an audit of government controlled land (especially the travelling stock route network in NSW, road reserves and other small reserves), with the aim to actively integrate Squirrel Glider conservation into their management.
3. Conduct regional Squirrel Glider surveys (with much of the initial focus on government land) to gather presence/absence data, and to gather genetic material to identify sub populations and important features connecting populations. At the same time engage the communities (e.g. through Landcare), building awareness of the species and drawing on community knowledge.
4. Conduct population viability analysis of glider populations across the government estate. Identify the contribution required from private land.
5. Develop basic regional plans to recover the species, with the initial focus on government owned assets, riparian and major drainage zones and scattered paddock trees.
6. Use the Squirrel Glider as a flagship species (particularly in agricultural and urban zones) to roll out conservation works. Investigate the species' potential as a surrogate species, identifying other species, particularly species of concern that will benefit from Squirrel Glider conservation works.

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7. In motivated communities engage the community in developing regional plans and assist in local area plans.
8. Develop attractive incentives to manage scattered trees in agriculture zones, to include scattered trees in revegetation projects and to manage riparian and drainage zones.
9. Monitor a subset of regional populations to gauge the success of activities and general population trends, to help identify improvements for future planning.
10. Work with fire control agencies, road management agencies, farming groups etc to educate on the value of large trees and help develop policies and protocols to limit their destruction.