Australian National University

Saving swift parrots: spring bud surveys 2024

A report to NRM South

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Background

Between 2020-2022 the ANU delivered an annual survey of flower bud development of the food trees of swift parrots across Tasmania to NRM South. The project involved a rapid survey across known breeding areas of swift parrots to look for the presence/absence of flower buds in blue gums (*Eucalyptus globulus*) and black gums (*E. ovata* and *E. brookeriana*).

Figure 1. Swift parrot foraging on blue gum flowers.

These rapid surveys involved scanning trees for the presence/absence of buds using binoculars from the ground, with a primary aim of attaining low resolution data for individual trees, but high spatial replication across the swift parrot's range. These data proved useful for conservation planning around swift parrot habitat management, because it served as a reasonable basis for pre-empting where the birds would settle in the early breeding season.

Description of the rapid survey

We focused our bud surveys on the following swift parrot important breeding areas (Table 1). Each region was visited by experienced surveyors (Dejan Stojanovic, Giselle Owens, Nicole Gill and Dave James). Key sites which form part of the annual monitoring program were surveyed in each survey region, with a focus on areas that are known to either support historical nesting sites or important areas of foraging habitat. We did not attempt to exhaustively survey all sites, but instead focused on visiting a subset of sites that would achieve good spatial coverage of the survey areas. Sites were accessed both by vehicle and on foot. At each site, both blue gums (*E. globulus*) and black gums (*E. ovata* and *E. brookeriana*) were checked with binoculars to identify the presence/absence and,if present, abundance of flower buds. At each site, we assessed all trees within 50m of the observer for bud (stopping at >10 locations in each region) and then calculated the average proportion of budded trees per region. The presence/absence of pre-breeding swift parrots was also recorded.

Results of the rapid survey

Blue gum budding was widespread but generally light, with the exception of the Tasman Peninsula which had more bud and some early flowering. Black gum budding was widespread and at various stages of flowering.

We predict that in the 2024 breeding season, the Tasman Peninsula and the Eastern Tiers regions are likely to have the largest aggregation of nesting swift parrots, with moderate likelihood of nesting in South Bruny, Buckland and the Southern Forests as well. Table 1 summarizes the regional results of bud surveys and provides an evaluation of the likelihood that swift parrots might settle to breed at each area.

Table 1. Results of the bud surveys and predicted likelihood of breeding settlement by swift parrots.

SPIBA	Black gums % budded	Blue Gums % budded	Predicted likelihood of parrot settlement
Buckland	100%	45%	Moderate-High
Channel	91%	14%	Low
Forestier Peninsula	80%	40%	Low-Moderate
Eastern Tiers	81%	11%	High
Maria Island	Na	28%	Low-Moderate
Meehan Range	Na	0%	Low
North Bruny	Na	23%	Low-Moderate
South Bruny	Na	60%	Moderate
Southern Forests	95%	25%	Moderate
Tasman Peninsula	82%	52%	High
Wielangta	TBC	4%	Low

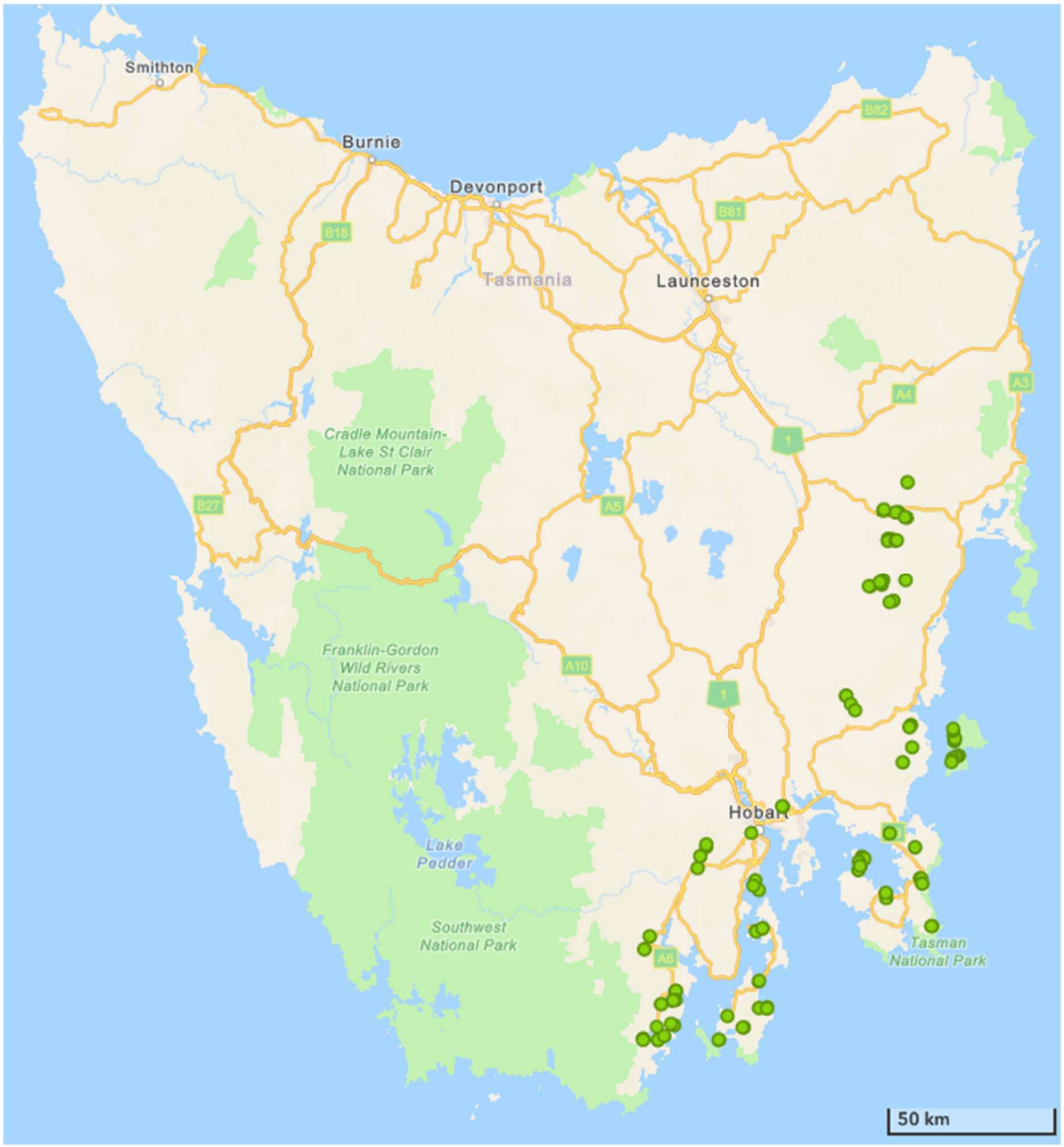

Figure 2. Map of trees surveyed. Green points indicate the locations of individual trees.