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Saving swift parrots: bud surveys August 2026

A report to NRM South



Image credit: Chris Tzaros

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Results at a glance:

1. Black gum budding is widespread at high intensity
2. Blue gum budding is more variable with low (4 SPIBAs), moderate (7 SPIBAs), and high (1 SPIBA) intensity budding detected
3. Swift parrots are likely to breed in several locations, particularly in the Tasman Peninsula where budding of blue gums is high, but also in several other regions with moderate budding
4. Widespread bud development means that some areas of suitable habitat may go unoccupied or occupied only at low densities

Methods

As part of an ongoing survey of swift parrot food trees, this project seeks to predict where food will occur and where swift parrots will settle each year.

We undertook bud formation surveys from February 2026 across 12 swift parrot important breeding areas (SPIBAs; Figure 1).

We revisited randomly selected trees throughout 12 SPIBAs to record the budding and flowering intensity of trees across the breeding range of swift parrots. We scored trees based on their over-all bud and flower cover intensity, estimated as the proportion of the crown of each individual tree where buds and/or flowers occurred. We visited three species: blue gum *Eucalyptus globulus*; black gum *E. ovata*; and Brookers' gum *E. brookeriana*. For analysis, we pooled records of the latter two species (hereafter: black gums). We analysed the data using a generalised linear model which included the interactive effect of SPIBA and tree species.

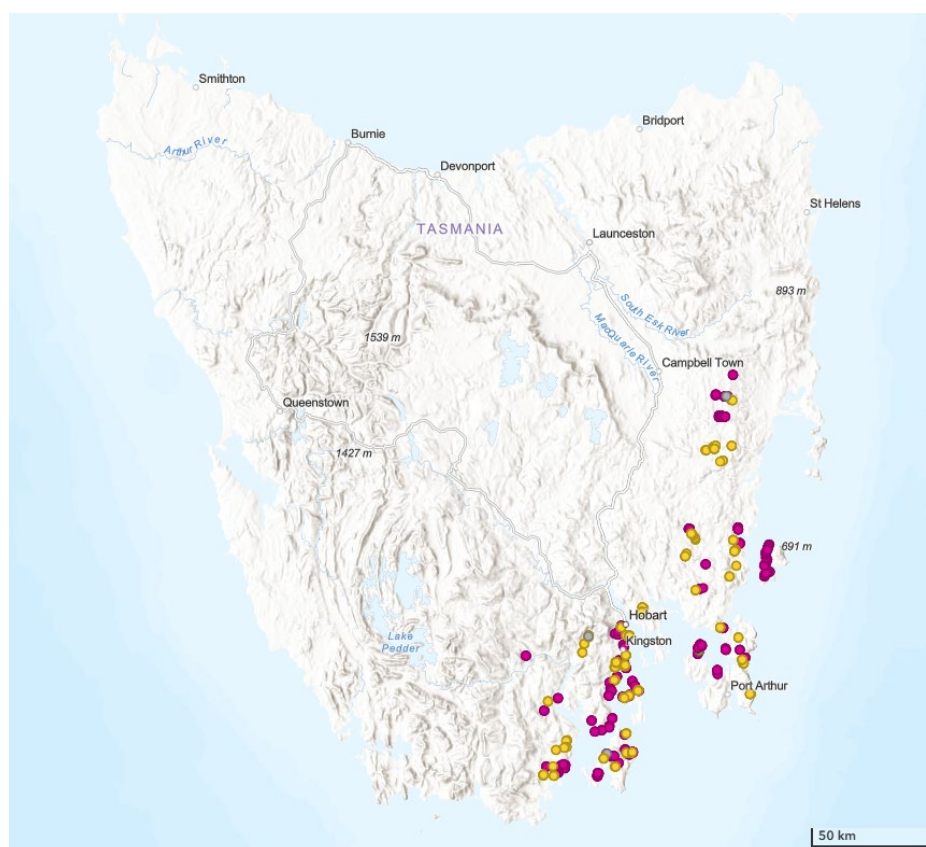


Figure 1. Map of trees surveyed. Magenta points indicate the locations of individual trees that have received two years of survey. Yellow points indicate trees with three years of survey.

Results of the 2026 bud survey

Raw data including total number of trees, total number of trees with bud and proportion of budded trees per species are shown by SPIBA in Table 1. Surveys included a total of 794 trees; 561 Blue Gum, and 233 Black Gum.

We found significant differences between SPIBAs in flowering intensity among the tree species surveyed (Figure 2). Modelled estimates (expressed as the estimated bud coverage of an individual tree by species at each SPIBA) and 95% confidence intervals are presented in Figure 2. Estimated values and 95% confidence intervals have been back transformed from the logit scale.

Black gum budding was widespread and relatively high across all SPIBAs, with each SPIBA scoring in the 'High' budding intensity category (50-100%). The highest estimated values (approx. 75% and above) occurred at the Channel, North and South Bruny Island, and Hobart SPIBAs. However, we caution that the sample of black gums was relatively small ($n = 233$ trees).

Blue gum budding included 4 SPIBAs in the 'Low' intensity category (including Hobart, Lake Leake, Meehan Range and North Bruny), and 7 scoring as 'Moderate' budding intensity. Only the Tasman Peninsula SPIBA had 'High' budding intensity.

Based on the combination of both the prevalence and intensity of budding among both tree species, we predict that in the 2026 breeding season, swift parrots are likely to breed in the Tasman Peninsula. However, given that Bruny Island, the Southern Forests, Buckland, Wielangta and Maria Island all have moderate scores, we predict that swift parrots may breed in low densities across many or all of these sites. Sightings of swift parrots on South Bruny have been reported already, however, we expect that widespread flowering in summer by blue gums will result in overall diffuse settlement by breeding swift parrots.

Table 1. Sample sizes and proportion of each tree species with bud per SPIBA

SPIBA	Species	N Total	N Budded	Proportion budded
Buckland	Black gum	24	23	0.958
	Blue gum	17	16	0.941
Channel	Black gum	55	54	0.982
	Blue gum	67	49	0.731
Forestier Peninsula	Black gum	12	12	1.000
	Blue gum	45	36	0.800
Hobart	Black gum	18	18	1.000
	Blue gum	60	30	0.500
Lake Leake	Black gum	45	40	0.889
	Blue gum	5	5	1.000
Maria Island	Black gum	9	9	1.000
	Blue gum	57	53	0.930
Meehan Range	Blue gum	51	14	0.275
North Bruny	Black gum	5	5	1.000
	Blue gum	82	68	0.829
South Bruny	Black gum	23	22	0.957
	Blue gum	61	52	0.852
Southern Forests	Black gum	33	30	0.909
	Blue gum	39	38	0.974
Tasman Peninsula	Blue gum	35	31	0.886
Wielangta	Black gum	9	8	0.889
	Blue gum	42	35	0.833

Figure 2. Modelled estimates of budding intensity (i.e., percentage of the crown of a given tree with bud) per SPIBA. Points indicate modelled estimates, error bars show 95% confidence limits. Shading represents a categorical assessment of low (0-30%), moderate (30-50%) or high (50-100%) bud coverage.

