Bird surveys of the Longwood Fire Area, May 2026

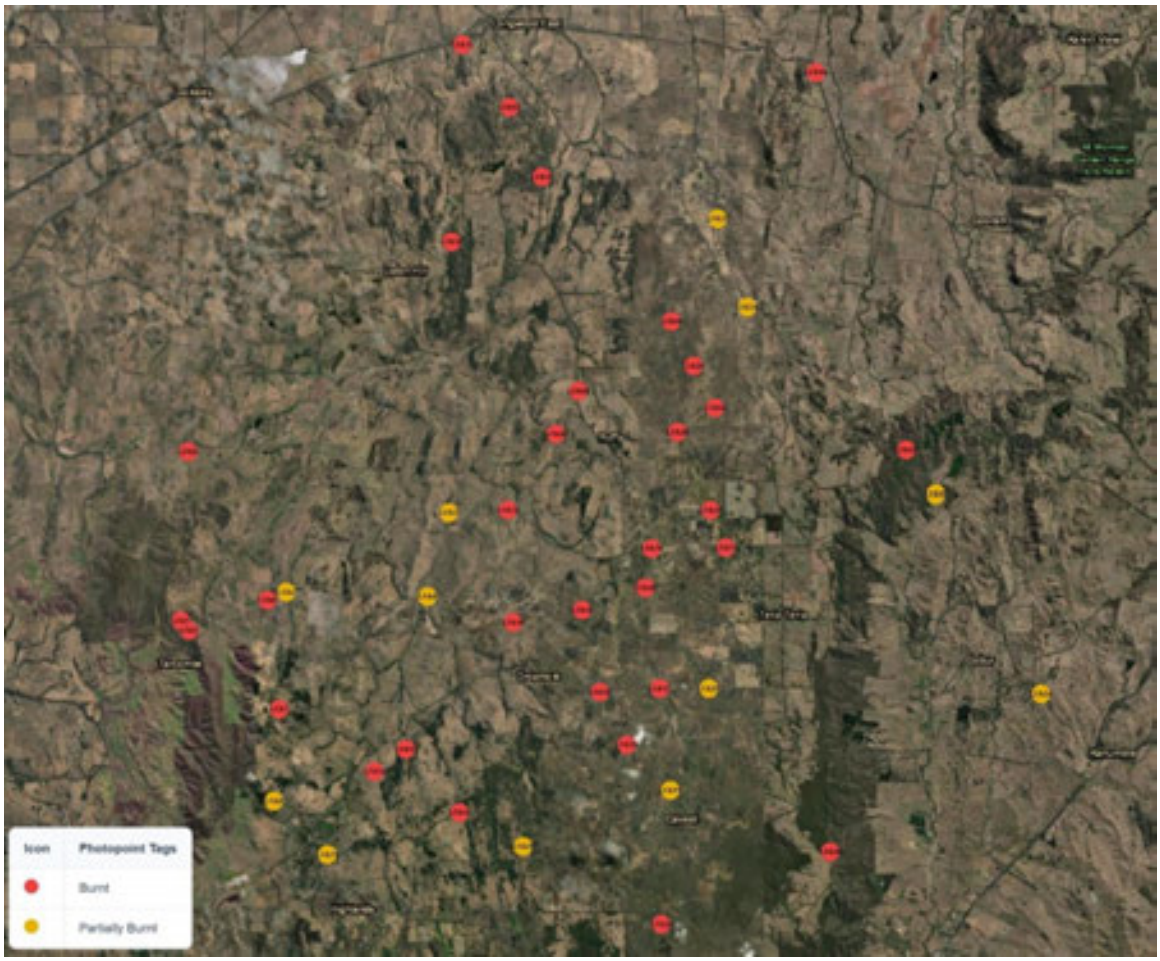
Chris & Julie Tzaros, Birds Bush and Beyond

Commencing in Autumn 2019, birds have been sampled at a range of forest, woodland and revegetation sites throughout the broader Strathbogie Ranges area of north-east Victoria. These surveys were repeated in Summer 2020, Spring 2021, Summer 2023 and Autumn 2024. This work was overseen and funded in partnership by the Goulburn Broken Catchment Management Authority and the Strathbogie Ranges Conservation Management Network.

Surveys were conducted using the standardised 2-hectare 20-minute method which is widely used to monitor terrestrial birds in Australia, and is the preferred method recommended by BirdLife Australia's Atlas Project. A total of 73 sites were established.

In Autumn 2026 (from 19-22 May inclusive), a subset of 44 of these sites were sampled within the areas affected by the devastating bushfires of January 2026 – termed the Longwood Fire Area. Most of these sites were on privately-owned property and were accessed with the permission of the relevant landholders. The Condition of Vegetation Rapid Assessment Method (COVRAM) app was used to record the site location (from a photograph taken through the app which uses geographic metadata associated with the image) and allocate a category as to whether the site was burnt or partially burnt (i.e. at least 50% unburnt).

The aim of the surveys was to conduct an initial post-fire assessment of the bird communities at these sites, four months after the fires. A solid set of baseline data had been established from previous surveys which can be drawn upon for comparison.



Distribution and category of bird survey sites, Longwood Fire Area, Autumn 2026

A personal recount from the field – Day 1, Site 1.

Given the scale and intensity of the fires, expectations around bird numbers and species richness were low. Upon arrival at the first site, it was apparent that I might be in for a few very tough days. As I stepped out from the Landcruiser, it was the heavy ash scent that initially hit me. Visually, the hillslope was strewn with fallen trunks and limbs from the eucalypts that were so heavily charred they were almost beyond species recognition. I trudged upslope to the start of my transect, through the loose and friable ash bed that already was furrowed with erosion lines after recent rains. With my binoculars, I scanned a nearby granite outcrop where I once observed Cunningham's Skinks basking at the edge of their crevice hideaways. It was scorched so badly that the rock had crumbled into pieces. No skinks, nor any evidence of them, were observed and I can't see how they could have possibly survived the intense heat.

Ten minutes passed, halfway into my bird survey, and my field sheet read blank. Then, my attention was drawn to the faint sound of a thornbill twittering from an unburnt tree canopy. As I approached, I was pleasantly surprised at the presence of a few stringybark and long-leaf box trees that had somehow escaped the fireball that had clearly razed this area. There were even a few wattles and a lone wild cherry that stood green and untouched, strikingly juxtaposed against the surrounding blackened landscape. From these trees, I added a Grey Fantail and a female Golden Whistler to the list, shortly followed by a pair of Varied Sittellas, a small flock of passing White-naped Honeyeaters and a little further on came the familiar chuckle of the ever-resilient Laughing Kookaburra. A few more species seemingly materialised out of nowhere and suddenly, a dozen species were scribed on the field sheet on my clipboard. There came hope. Maybe the birdlife wasn't as badly affected as I thought…

Autumn 2026 bird survey results

A total of 50 species were recorded across all 44 burnt and partially burnt sites during the recent Longwood Fire Area bird surveys. The table below presents a comparison between burnt and partially burnt sites. As expected, species richness and bird abundance was higher at partially burnt sites due to the presence of remaining habitat resources such as foliage, unburnt trunks and limbs and only partially scorched understorey and ground storey vegetation.

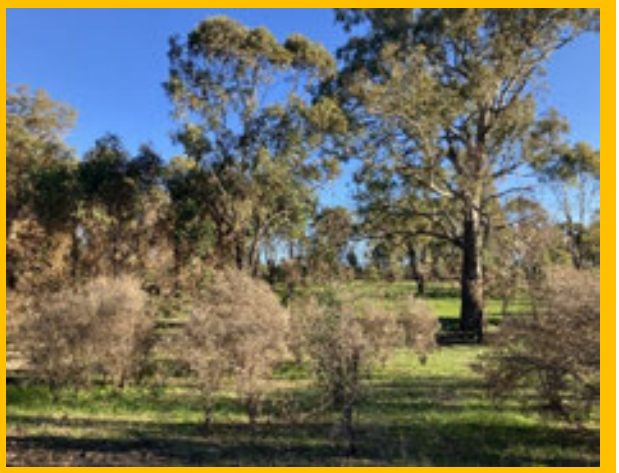
Site category	No. sites	No. species	Av. no. of species per site	Av. no. of individuals per site
Burnt	32	42	1.3	19
Partially Burnt	12	42	3.5	34

Examples of Burnt sites

Ridgeline of Red Box and Long-leaf Box open forest with heavy loss of woody debris and badly scorched canopy. Waggs Range, near Whiteheads Creek.

This taller stand of Narrow-leaf Peppermint, Manna Gum and Messmate was completely burnt from the ground to the canopy. Caveat Nature Reserve.

Examples of Partially Burnt sites



Scorched shrubs and saplings in the foreground with unburnt River Red Gum and Grey Box in the background. Burge Family Reserve, Gobur.

Though most of the eucalypt cover was burnt at this site, some areas of acacia understorey remained. Creightons Creek.

Birds recorded across all 44 sites, partitioned into Burnt and Partially Burnt sites, are listed in the table below.

Burnt sites			Partially Burnt sites		
Species	**No. sites recorded across all 32 sites**	**No. individuals across all 32 sites**	**Species**	**No. sites recorded across all 12 sites**	**No. individuals across all 12 sites**
Australian Magpie	23	68	Australian Magpie	12	43
Crimson Rosella	21	79	Brown Thornbill	9	30
Brown Thornbill	19	47	Crimson Rosella	9	41
Grey Fantail	17	25	Grey Fantail	9	13
Grey Shrike-thrush	17	26	Spotted Pardalote	8	26
Spotted Pardalote	15	29	Grey Shrike-thrush	7	9
Laughing Kookaburra	10	22	Superb Fairy-wren	7	43
Yellow-rumped Thornbill	9	30	Golden Whistler	5	6
Superb Fairy-wren	8	35	Striated Pardalote	5	14
Golden Whistler	7	8	Striated Thornbill	5	37
Striated Pardalote	7	12	White-browed Scrubwren	5	10
White-browed Scrubwren	7	17	White-plumed Honeyeater	5	18
Buff-rumped Thornbill	6	27	Galah	3	6
Striated Thornbill	6	16	Scarlet Robin	3	5
White-throated Treecreeper	6	6	Weebill	3	14
Flame Robin	5	29	White-naped Honeyeater	3	11
Sulphur-crested Cockatoo	5	12	Yellow-rumped Thornbill	3	19
Grey Butcherbird	4	5	Brown-headed Honeyeater	2	6
Pied Currawong	4	4	Buff-rumped Thornbill	2	9
Scarlet Robin	4	6	Crested Shrike-tit	2	2
White-eared honeyeater	4	4	Magpie-lark	2	3
Galah	3	6	Pied Currawong	2	2
Red Wattlebird	3	6	Red Wattlebird	2	2
Willie Wagtail	3	4	Welcome Swallow	2	10
Yellow faced Honeyeater	3	5	Eastern Rosella	1	3
Australian Raven	2	4	Eastern Spinebill	1	1
Eastern Rosella	2	4	Flame Robin	1	2
Australian King-Parrot	2	3	Golden-headed Cisticola	1	2
Grey Currawong	2	2	Grey Butcherbird	1	1
Little Raven	2	6	Grey Currawong	1	1
Red-capped Robin	2	4	Laughing Kookaburra	1	1
Silvereye	2	11	Olive-backed Oriole	1	1
Varied Sittella	2	10	Red-browed Finch	1	4
Weebill	2	10	Restless Flycatcher	1	1
White-plumed Honeyeater	2	3	Silvereye	1	2

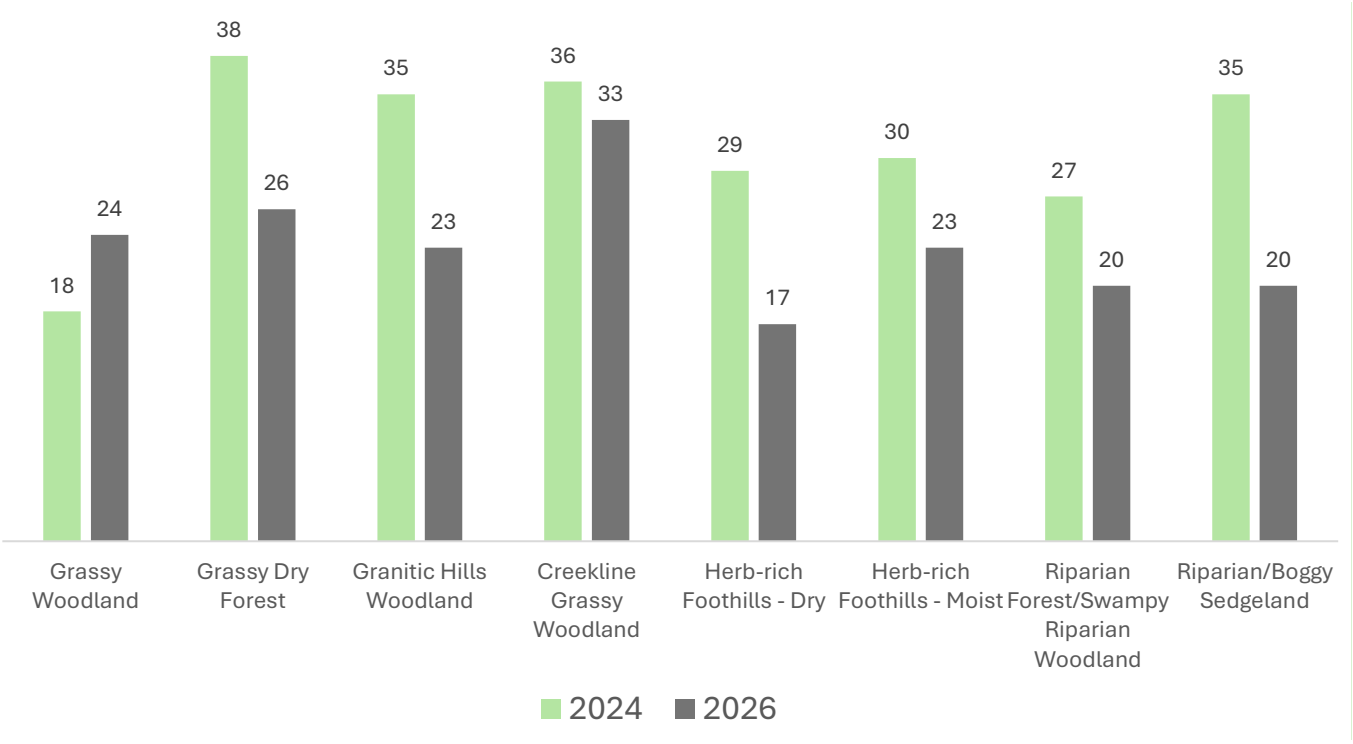
Species	No. sites recorded across all 32 sites	No. individuals across all 32 sites	Species	No. sites recorded across all 12 sites	No. individuals across all 12 sites
Brown Goshawk	1	1	Sulphur-crested Cockatoo	1	2
Brown-headed Honeyeater	1	3	Varied Sittella	1	3
Eastern Spinebill	1	1	Whistling Kite	1	1
Magpie-lark	1	2	White-eared Honeyeater	1	1
Wedge-tailed Eagle	1	1	White-throated Treecreeper	1	1
Welcome Swallow	1	2	Yellow faced Honeyeater	1	1
White-winged Chough	1	6	Yellow Thornbill	1	3
	No. species: 42	**No. of individuals:** 601		**No. species:** 42	**No. of individuals:** 410

The chart below summarises the results of recent surveys in the Longwood Fire Area, compared to the most recent survey results from Autumn 2024.

Site no.	Site category	Autumn 2024		Autumn 2026		Comparison (no. of species)	Comparison (no. of individuals)
		No. of species	No. of individuals	No. of species	No. of individuals		
1	Burnt	18	68	14	29	decrease by 4	decrease by 39
2	Partially Burnt	16	56	10	27	decrease by 6	decrease by 29
3	Partially Burnt	13	37	7	32	decrease by 6	decrease by 5
4	Partially Burnt	16	51	12	31	decrease by 4	decrease by 20
5	Burnt	14	35	8	24	decrease by 6	decrease by 11
6	Burnt	8	28	11	32	increase by 3	increase by 4
7	Burnt	17	72	5	13	decrease by 12	decrease by 59
8	Partially Burnt	13	35	6	17	decrease by 7	decrease by 18
9	Burnt	10	22	8	18	decrease by 2	decrease by 4
11	Partially Burnt	18	69	10	30	decrease by 8	decrease by 39
12	Burnt	8	25	4	16	decrease by 4	decrease by 9
13	Burnt	15	60	7	9	decrease by 8	decrease by 51
14	Burnt	15	58	11	24	decrease by 4	decrease by 34
15	Burnt	8	17	6	26	decrease by 2	increase by 9
16	Burnt	16	48	5	11	decrease by 11	decrease by 37
17	Burnt	8	18	6	15	decrease by 2	decrease by 3
18	Burnt	12	52	5	12	decrease by 7	decrease by 40
19	Burnt	15	52	6	12	decrease by 9	decrease by 40
20	Burnt	13	30	13	38	same	increase by 8
21	Partially Burnt	14	44	16	43	increase by 2	decrease by 1
22	Burnt	18	59	11	20	decrease by 7	decrease by 20
24	Burnt	22	68	5	6	decrease by 17	decrease by 62

Site no.	Site category	Autumn 2024		Autumn 2026		Comparison (no. of species)	Comparison (no. of individuals)
		No. of species	No. of individuals	No. of species	No. of individuals		
25	Partially Burnt	15	33	6	14	decrease by 9	decrease by 19
26	Burnt	17	45	9	18	decrease by 8	decrease by 26
27	Burnt	12	42	5	12	decrease by 7	decrease by 30
28	Burnt	10	25	3	6	decrease by 7	decrease by 19
29	Burnt	8	21	6	18	decrease by 2	decrease by 3
30	Burnt	9	31	11	40	increase by 2	increase by 9
31	Burnt	7	17	15	49	increase by 8	increase by 32
33	Partially Burnt	11	26	20	49	increase by 9	increase by 23
34	Partially Burnt	12	39	14	35	decrease by 2	decrease by 4
43	Burnt	8	16	7	13	decrease by 1	decrease by 3
44	Burnt	15	51	12	22	decrease by 3	decrease by 29
51	Burnt	11	29	2	3	decrease by 9	decrease by 26
54	Partially Burnt	15	44	18	84	increase by 3	increase by 40
55	Partially Burnt	13	45	5	20	decrease by 8	decrease by 25
59	Burnt	17	52	3	4	decrease by 14	decrease by 48
62	Burnt	11	27	10	21	decrease by 1	decrease by 6
68	Burnt	4	7	5	12	increase by 1	increase by 5
69	Burnt	13	47	9	21	decrease by 4	decrease by 26
71	Partially Burnt	9	26	9	28	same	increase by 2
72	Burnt	9	30	4	13	decrease by 5	decrease by 17
73	Burnt	20	62	9	22	decrease by 11	decrease by 40
74	Burnt	15	66	8	22	decrease by 7	decrease by 44
						decrease at 35 sites	**decrease at 36 sites**
						increase at 10 sites	**increase at 11 sites**
						same at 2 sites	

Each of the bird survey sites has been assigned an Ecological Vegetation Class, or habitat type. Nine different habitat types were represented. These are listed in the graph below, along with the total number of bird species recorded within each habitat type, again comparing current Autumn 2026 post-fire surveys with Autumn 2024 pre-fire surveys.



When examining the number of birds per habitat type, all values are greater in 2024 (pre-fires) except for Grassy Woodland. In this habitat type, bird communities are comprised largely of common farmland and open country species that have generalised requirements, such as Australian Magpie, Crimson Rosella and Grey Shrike-thrush. Fire is less likely to impact such species. In all other habitat types, the fires have significantly simplified the environment by removing layers of habitat, thus affecting birds that have more specialised requirements through their reliance on a more complex variety of foraging substrates and niches.

The greatest disparity in species richness between burnt and partially burnt habitat types was in Riparian/Boggy Sedgeland – localised moisture-rich communities found on granitic tablelands, valley floors, spring-soaks and poorly drained drainage lines. Here the habitat is comprised largely of Swamp Gum overstorey, with understorey thickets of heath and tea-tree and large tussock forming sedges and rushes. Fires in these areas would have a particular impact on birds characteristic of this habitat including the White-eared Honeyeater, Crested Shrike-tit, Eastern Yellow Robin and White-browed Scrubwren.

Riparian Swamp Gum woodland, Boggy Creek, Ruffy, Autumn 2019

Riparian Swamp Gum woodland, Boggy Creek, Ruffy, Autumn 2026

The White-eared Honeyeater and Crested Shrike-tit have suffered significant loss of their preferred riparian woodland habitat, however they were both still recorded at sites on recent surveys.

Major impacts of the fires on habitat and bird communities

The geographic scale of the loss of habitat caused by the Longwood fires is profound. Though some smaller areas were spared from the blaze, the vast majority of the landscape was heavily affected. In open grassy areas, especially along ridgelines and hilltops, the fire appears to have passed through relatively quickly resulting in some vegetation remaining unburnt or partially scorched. Ridges and hillslopes in forested areas were considerably worse off, and in more sheltered areas, namely the deeper valleys and lower slopes, the fires appear to have burnt more intensely and/or for longer periods, resulting in a substantial impact to native vegetation. When looking at the epicormic regrowth of the eucalypts, which is quite well-advanced in most areas, it is noticeable that rough-barked trees such as stringybarks and peppermints have fared better than smooth-barked species such as Manna Gum and Blue Gum. Understorey in most areas has been significantly burnt and is virtually absent with the exception of a minority of unburnt and partially burnt sites.

Hughes Creek Picnic Area, Autumn 2019

Hughes Creek Picnic Area, Autumn 2026

Manna Gums, Hughes Creek Gorge, Autumn 2019

Manna Gums, Hughes Creek Gorge, Autumn 2026

The charred hills north of Gobur

Across all vegetation types, the most catastrophic impact has been the loss of large old trees. These wildlife havens have multiple biodiversity benefits - they are irreplaceable and the impact resulting from their loss is immeasurable. For birds, they are important for all the habitat resources they provide - their large spreading crowns with more foliage cover and branches, broader trunks and limbs with more crevices and fissures supporting a greater volume of food, and most obviously the hollows they provide for species that either nest and/or shelter in tree hollows.

Hollow-dependent species that will suffer enormously from this critical resource loss include species such as the Yellow-tailed Black-Cockatoo, Gang-gang Cockatoo, Australian King Parrot, Crimson Rosella, Eastern Rosella, Powerful Owl, Boobook Owl, Barn Owl, Australian Owlet-nightjar, White-throated Treecreeper, Red-browed Treecreeper, Brown Treecreeper, Striated Pardalote, Laughing Kookaburra, Sacred Kingfisher and many more. The reduced abundance of arboreal mammals such as possums and gliders, which also rely on tree-hollows, depletes the food source for owls. Large old stringybarks with their fruits and buds provide the primary food source for Gang-gang Cockatoos.

Devastatingly, given that many surrounding trees have remained standing, it is likely that many of the massive old trees would have survived the actual fire front as it passed through. However, given many have hollow bases and with accumulated debris underneath, fires continued to burn in and around the tree which ultimately resulted in their destruction over following days and weeks.

Large remnant Yellow Box enhanced by surrounding planting, Highlands, Autumn 2019.

Now, one large Yellow Box remains. The multi-stemmed tree was destroyed in the fires. Autumn 2026.

A remnant paddock tree, although dead, was a known nesting site for Blue-winged Parrots – the only site I know of north of the Divide where Blue-winged Parrots have nested, Highlands, Autumn 2019.

Where will the Blue-winged Parrots nest this Spring? This dead hollow bearing trees, along with many others on this property, were lost to the bushfires, Highlands, Autumn 2026.

The Gang-gang Cockatoo was listed as Endangered nationally in 2022 due to severe population decline and habitat loss from the 2019-2020 bushfires. It is likely to have suffered significantly from lost foraging and nesting habitat in the Longwood Fire Area.

Collapsed large old River Red Gum, burnt away at the base. Hughes Creek Flora Reserve, Autumn 2026.

A massive old Grey Box suffers a similar fate, Burge Family Reserve near Gobur, Autumn 2026.

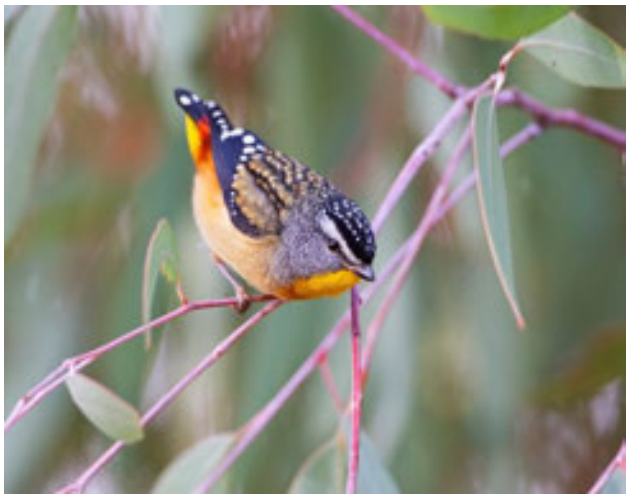
Large old trees strategically formed the basis of many revegetation sites. Several were lost at this location near Dropmore. Autumn 2026.

Numerous old Red Stringybarks were either burnt to the ground or scorched so badly that they were killed. Near Ruffy, Autumn 2026.

Some early signs of recovery

Amidst the aftermath of the fires, despite the widespread devastation, there were some positive observations and signs of what will come – a process where vegetation recovery and habitat resource availability will appeal to the complex array of species enabling their return over time.

Just four months after the fires, it was a welcome sight to see the return of resident species such as the Spotted Pardalote, White-throated Treecreeper and Varied Sittella beginning to recolonise their former habitat. It is astonishing that these birds could have survived such an intense threat, and the most likely scenario is that they fled the area during the fires and have since returned.



Spotted Pardalote, recorded at 23 sites.

Varied Sittella, recorded at 3 sites.

Autumn-winter migrants that visit the area and typically arrive at around this time of year, such as the Flame Robin, Golden Whistler and Scarlet Robin, were all recorded at multiple sites. The regenerating foliage, grass growth and woody substrates are already supporting an invertebrate resource which in turn provides foraging opportunities for these insect-eating birds.

Flame Robin, detected at 6 sites.

Golden Whistler, detected at 12 sites.

Thanks to landholders

I am grateful to the landholders who have allowed access to the bird survey sites, especially during this time of heartbreak for many have tragically lost houses, animals and other property. It was obvious just how much habitat has been lost as well and there were many examples where peoples hard work and passion, including revegetation sites and protected remnants, were all but

destroyed. Not taking away from that, this is an opportunity to learn about the impact of such a disaster on our bush bird communities, and to assess the landscape and prioritise remedial action to address the most serious issues facing our bird life. Nature is resilient and the recovery process is well underway. Bird populations will, slowly but surely, bounce back.