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*Pacific Conservation Biology*

### Supplementary Material

**Recovery of the Southern Greater Glider (*Petauroides volans*) following the extreme drought, heatwaves, and mega-fires of 2019–2020 in the southern Greater Blue Mountains World Heritage Area, Australia**

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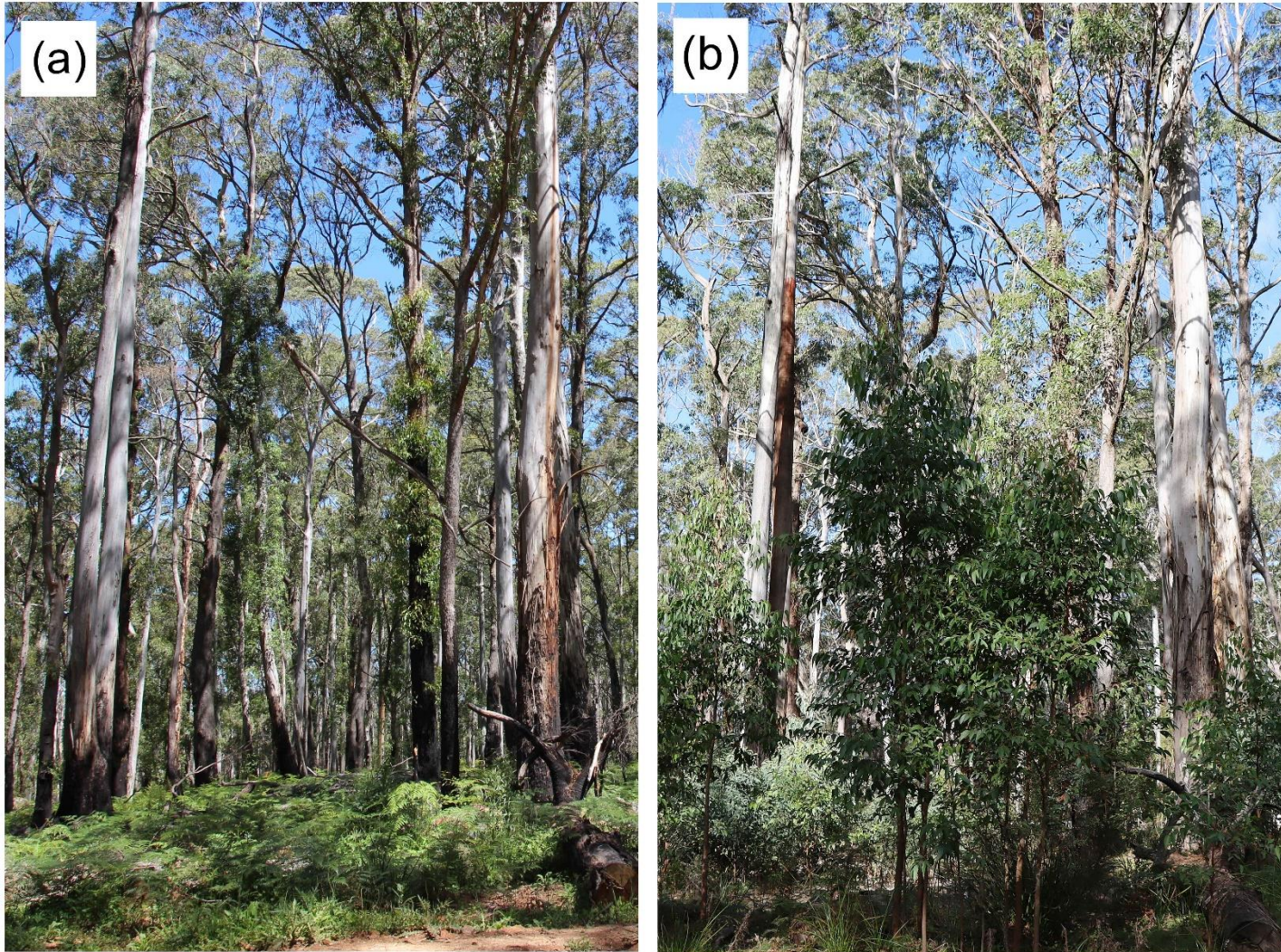
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**Table S1.** Vegetation change in the eucalypt forest of the six burnt transects used to survey Southern Greater Gliders in 2020 to 2024. Foliage cover % is the proportion of the ground shaded by live eucalypt foliage. Tree foliage cover includes both canopy and understorey trees but not post-fire sapling regeneration. The 2020 data were about 11 months post-fire; the 2024 data were about 4.4 years post-fire; the 2018 data are from Smith and Smith (2018b). Eucalypt foliage killed in Transect 11 was mainly in the understorey.

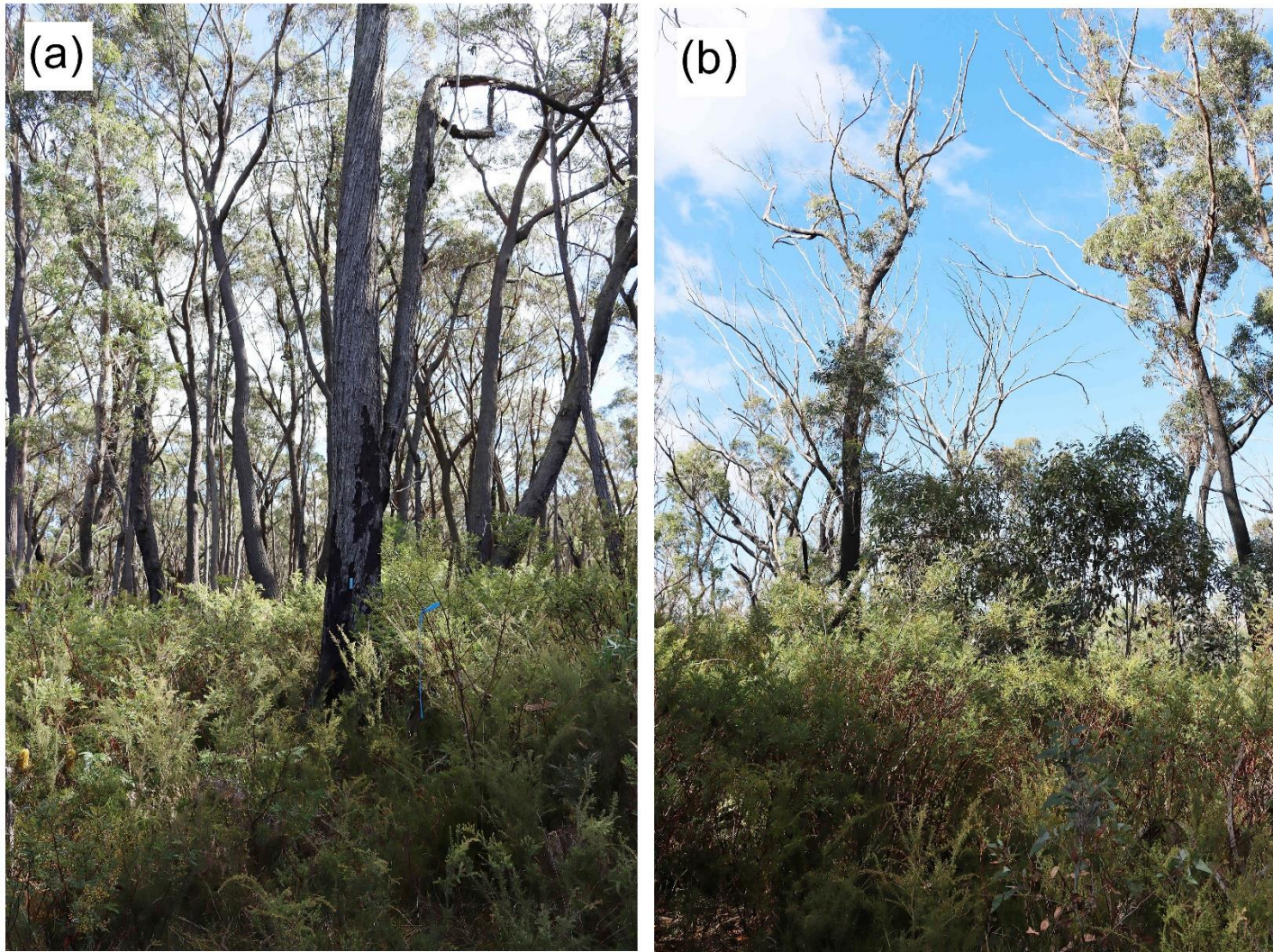
Transect	Fire severity	% eucalypt foliage killed	Eucalypt tree foliage cover (%)			Eucalypt sapling regeneration 2024	
			2018	2020	2024	Foliage cover (%)	Max height (m)
Wombeyan							
11	low	44		34	36	36	7
5	moderate	63	34	22	24	6	4
12	moderate	72		24	20	46	7
6	moderate	77	30	16	18	5	7
Jenolan							
13	high	100		16	22	34	5
14	extreme	100		10	12	45	6

**Table S2.** Dates when the seven study transects were surveyed for Southern Greater Gliders. Number of surveys shown in parentheses. Surveys in 2020 to 2024 from the present study. Wombeyan surveys before 2019 by Smith and Smith (2017a) in 2016 and Smith and Smith (2018b) in 2018. Jenolan surveys before 2019 by DECC (2007) in 2003, OEH (2012) in 2011 and Smith and Smith (unpublished data) in 2018.

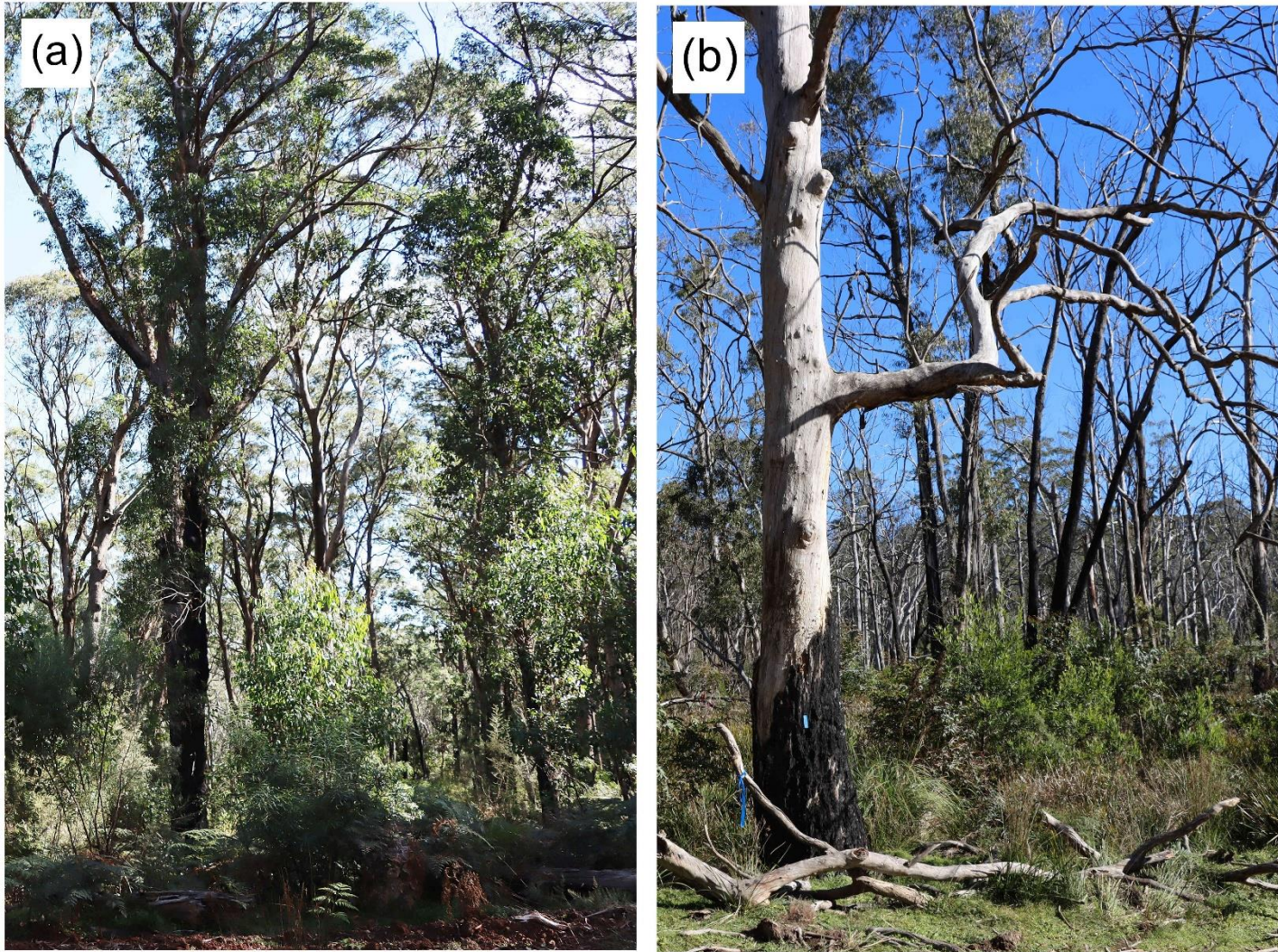
Transect	Surveys before 2019	2020	2021	2022	2023	2024
Wombeyan						
5	16/12/16 (1), 28-30/05/18 (3)	13-15/11/20 (3)	24-27/05/21 (3)	15-18/06/22 (3)	9-12/05/23 (3)	20-24/05/24 (3)
6	13/12/16 (1), 28-30/05/18 (3)	14-17/11/20 (3)	24-27/05/21 (3)			21-23/05/24 (3)
11	14/12/16 (1)	13-16/11/20 (3)	24-26/05/21 (3)	15-17/06/22 (3)	9-11/05/23 (3)	20-24/05/24 (3)
12	14/12/16 (1)	13-16/11/20 (3)	25-27/05/21 (3)	15-18/06/22 (3)	10-12/05/23 (3)	21-24/05/24 (3)
18	16/12/16 (1)			16-18/06/22 (3)	9-12/05/23 (3)	20-23/05/24 (3)
Jenolan						
13	20/01/03 (1), 21/02/11 (1), 24/11/18 (1)	4-11/12/20 (3)	1-5/06/21 (3)	27/05-4/06/22 (3)	5-19/05/23 (3)	25/04-7/05/24 (3)
14	20/01/03 (1)	4-11/12/20 (3)	1-5/06/21 (3)	27/05-4/06/22 (3)	5-19/05/23 (3)	25/04-7/05/24 (3)



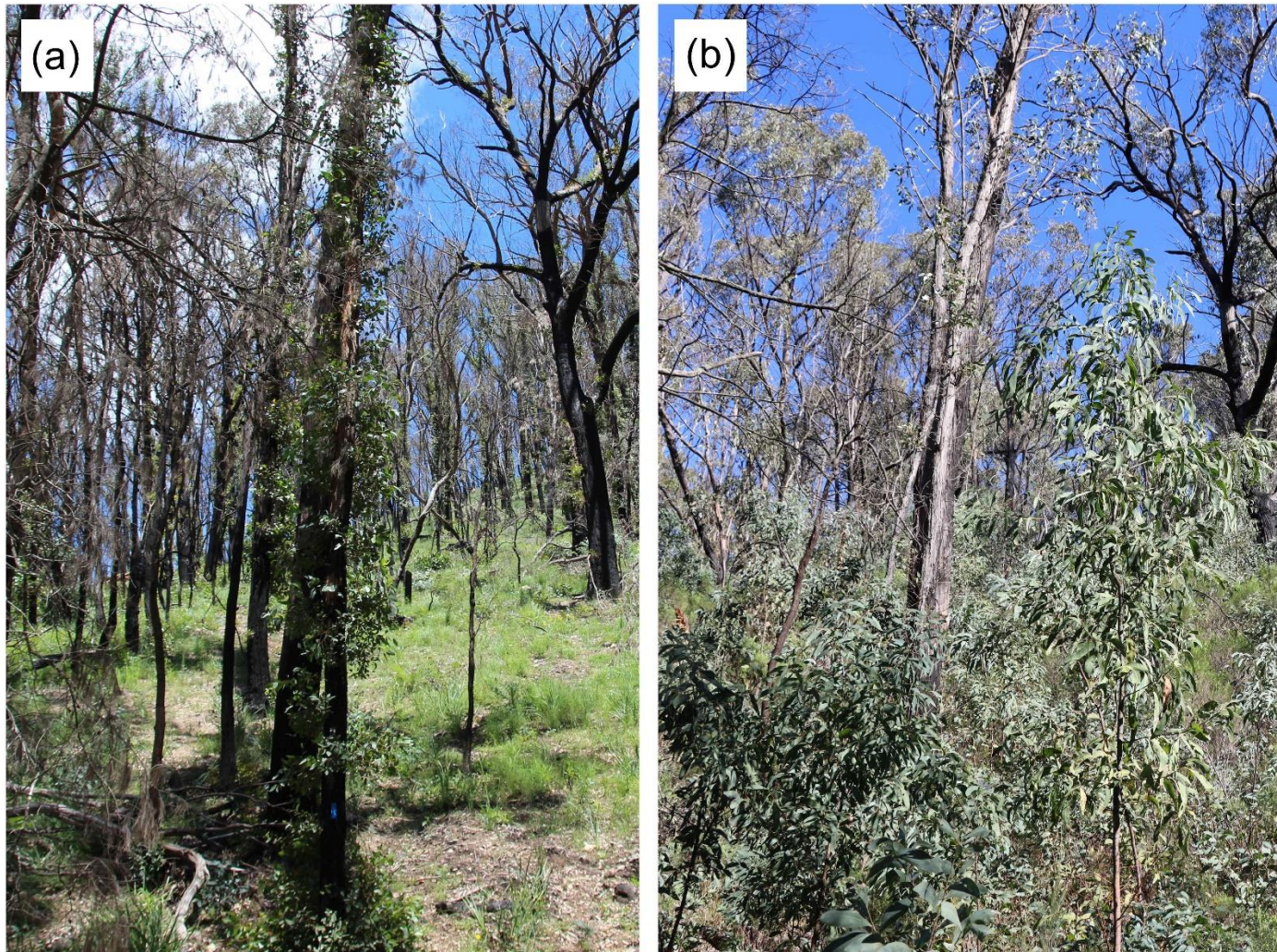
**Fig. S1.** Low severity burnt Transect 11: (a) November 2020, 10.5 months post-fire; (b) May 2024, 52.5 months post-fire. Photos taken at same point. Estimated 44% of eucalypt foliage killed in the fire, mainly understorey foliage, with most of the canopy foliage remaining intact.



**Fig. S2.** Moderate severity burnt Transect 5 in May 2024, 52.5 months post-fire. Fire severity varied along the transect, from lightly burnt (a) to severely burnt (b). Estimated 63% of eucalypt foliage killed in the fire. The dense shrub regeneration in both photos is mainly *Acacia terminalis*.



**Fig. S3.** Moderate severity burnt Transect 12 in May 2024, 52.5 months post-fire. Fire severity varied along the transect, from lightly burnt (a) to severely burnt (b). Estimated 72% of eucalypt foliage killed in the fire.



**Fig. S4.** Moderate severity burnt Transect 6: (a) November 2020, 10.5 months post-fire; (b) May 2024, 52.5 months post-fire. Photos taken at same point. Estimated 77% of eucalypt foliage killed in the fire. The dense sapling and shrub regeneration in the 2024 photo is mainly *Acacia falciformis* and *Cassinia longifolia*.

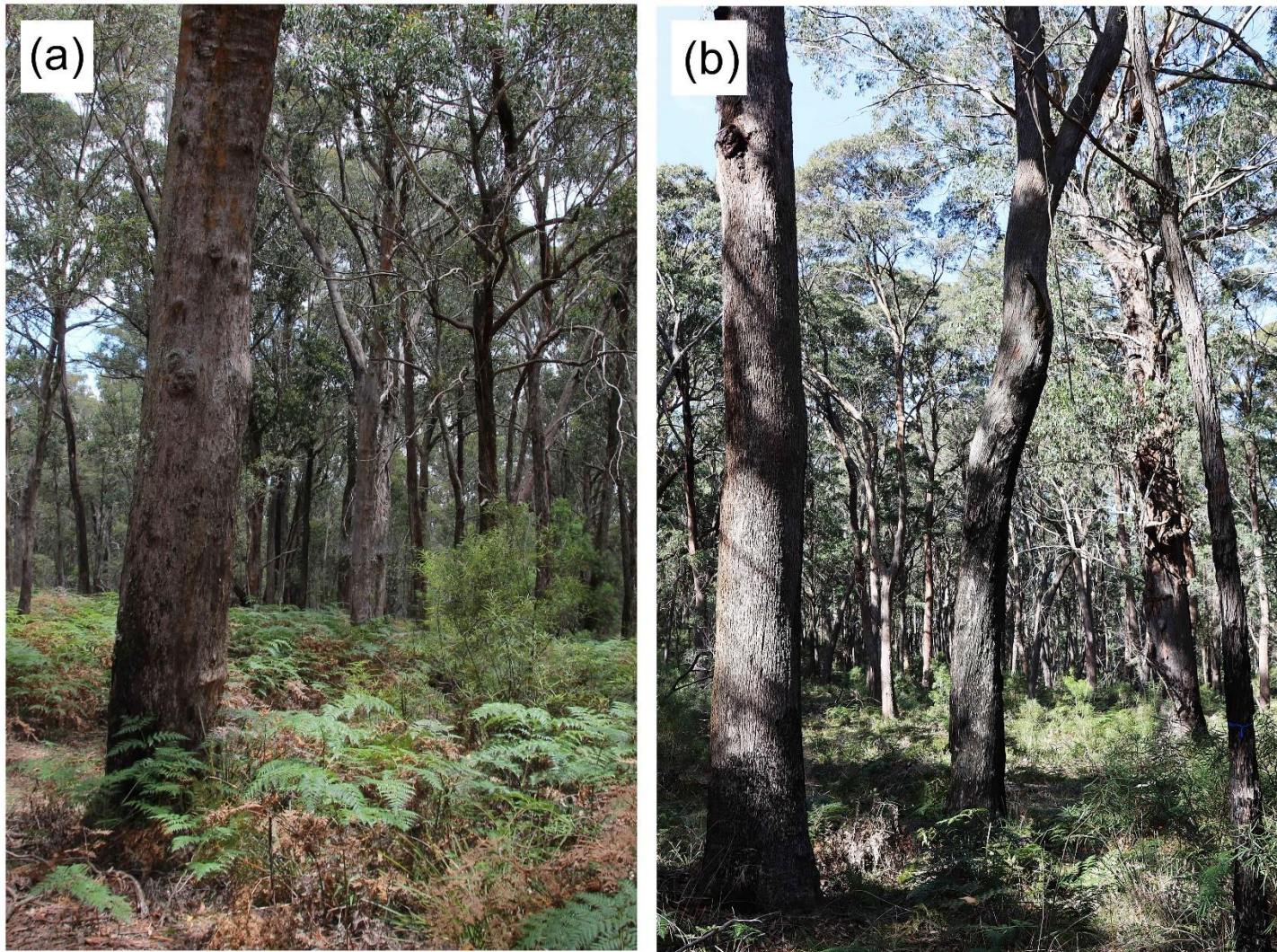


**Fig. S5.** High severity burnt Transect 13: (a) December 2020, 11 months post-fire; (b) April 2024, 52 months post-fire. Photos taken at same point. All eucalypt foliage killed in the fire, probably by scorching rather than a crown fire.



**Fig. S6.** Extreme severity burnt Transect 14: (a) December 2020, 11 months post-fire; (b) April 2024, 52 months post-fire. Photos taken at same point. All eucalypt foliage killed in an apparent crown fire.





**Fig. S7.** Unburnt Transect 18: (a) December 2016; (b) May 2024. Photos taken at different points. Compared with the burnt transects, there has been little change in the vegetation of Transect 18.