Colquhoun Grevillea Detection Report

Coupe 803-504-0009, Stony Creek, Kenny State Forest



Report documenting a significant population of the threatened *Grevillea* celata within VicForests scheduled logging coupe 803-504-0009

Abstract

A flora survey by Wildlife of The Central Highlands (WOTCH) and Fauna and Flora Research Collective Inc (FFRC) was undertaken within VicForests coupe 803-504-0009 on 8 December 2020. VicForests refer to this coupe as "The Highway". 67 threatened *Grevillea celata* (Colquhoun Grevillea) plants were marked within the coupe, and some of these were photographed and filmed along with GPS coordinates. Many additional plants were seen in the small area searched within coupe 803-504-0009. As such, the 67 plants recorded during this limited survey and shown on the maps included within this report represent only the minimum population size. With the 2019-20 bushfires impacting much of the habitat/records of this threatened species, this population is highly significant and must be protected from logging and other disturbances. The methodology, results, discussion, conclusions and recommendations are outlined below.

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Introduction

Colquhoun Grevillea (*Grevillea celata*) is listed in Victoria as a threatened species on the *Flora and Fauna Guarantee Act 1988 Threatened List* and on the Department of Environment, Land, Water and Planning (the Department) *Advisory list of rare or threatened plants in Victoria - 2014* as "vulnerable" to extinction. Federally, the species is listed under the *Environmental Protection and Biodiversity Conservation Act 1999* as "Vulnerable" to extinction. A Victorian government "Conservation Status Assessment Project" has provisionally assessed the species as "Critically Endangered".^{1,2}

The Colquhoun Grevillea is a Victorian endemic restricted to approximately $11 \mathrm{km^2}$ of State Forest between Bruthen and Nowa Nowa, in central-eastern Gippsland. It is estimated that approximately 1000-1600 individual plants exist across nine populations. Populations of Colquhoun Grevillea occur in heathy open forest with an overstorey of Yertchuk (*Eucalyptus consideniana*), Mountain Grey-gum (*E. cypellocarpa*), White Stringybark (*E. globoidea*), Red Stringybark (*E. macrorhyncha*), Silvertop Ash (*E. sieberi*) or Messmate Stringybark (*E. obliqua*). As per the Action Statement, the nine populations, all of which are considered important populations necessary to the long-term survival and recovery of the Colquhoun Grevillea, are as follows:

Estimated size
60 - 175 plants
~40 plants
80 - 175 plants
~30 plants
~750 plants
~375 plants
25 plants
1 plant
~5 - 28 plants

"2

Unprecedented bushfires over the 2019-20 season have had major impacts on *Grevillea celata* with 56% of the species' modelled habitat within the fire extent and 24% of the modelled habitat impacted by high severity fire. The Victorian government's *Biodiversity Response and Recovery Report* states that following the fires the genetic risk for the species is very high and a majority if not all populations have been impacted by the fires. ³

¹ "Conservation Status Assessment Project", Department of Environment, Land, Water and Planning, State Government of Victoria, https://www.environment.vic.gov.au/conserving-threatened-species/conservation-status-assessment-project, accessed 2021.

² Victorian Government Department of Sustainability & Environment (DSE). (2009). *Action Statement. Flora and Fauna Guarantee Act 1988. No 211. Colquhoun Grevillea. Grevillea celata.* Melbourne: Victorian Government DSE.

³ Victorian Government Department of Environment, Land, Water & Planning (DELWP). (2020). Victoria's bushfire emergency: biodiversity response and recovery: version 2: August 2020. DELWP.

Table 1. Flora species of most concern (extract from Biodiversity Response and Recovery Report). ³

Scientific Name	Common Name	% of modelled habitat in Victoria within the current fire extent	% of modelled habitat in Victoria impacted by high severity fire	Genetic Risk	Localised impacts
Grevillea celata	Colquhoun Grevillea	56%	24%	Very high	Majority if not all populations impacted

Table 2. Flora of concern percentages of habitat within fire extent using Habitat Distribution Models (HDMs) and VBA records (extract from Biodiversity Response and Recovery Report). ³

Scientific Name	entific Name Common Name		% of habitat in Victoria within the current fire extent using VBA records
Grevillea celata	Colquhoun Grevillea	56%	56%

Investigation Location

This investigation took place within VicForests scheduled logging coupe 803-504-0009 'The Highway', which is located just north of the Bruthen-Nowa Nowa road in Kenny State Forest. As seen in the Figure 1 map below, the investigation location is located within the East Gippsland FMA, approximately 3km east of the Tambo/East Gippsland FMA border. The investigation area is approximately 2.2 km from the edge of the 2019-20 bushfire footprint.

The Figure 1 map below shows the 2019-20 bushfire impacts on existing VBA records of *Grevillea celata*, and the distribution of unburnt *G. celata* records within the Tambo & East Gippsland Forest Management Areas (FMAs).

VicForests' monthly logging schedule, which is posted on their website, states that logging coupe 803-504-0035 is scheduled to be logged this month (April 2021). VicForests refers to this coupe as "Back Road". Coupe 803-504-0035 is located directly adjacent coupe 803-504-0009, which is subject of this investigation.

³ Victorian Government Department of Environment, Land, Water & Planning (DELWP). (2020). *Victoria's bushfire emergency: biodiversity response and recovery: version 2: August 2020*. DELWP.

Existing Grevillea celata (Colquhoun Grevillea) VBA records and new WOTCH/FFRC records; VicForests Timber Release Plan (TRP) December 2020; Existing Forest Management Zoning (FMZ); Bushfire Severity East and North East Victoria 2019-20; Parks & Reserves, Townships, Major roads and Watercourses; Forest Management Area (FMA) Boundaries.

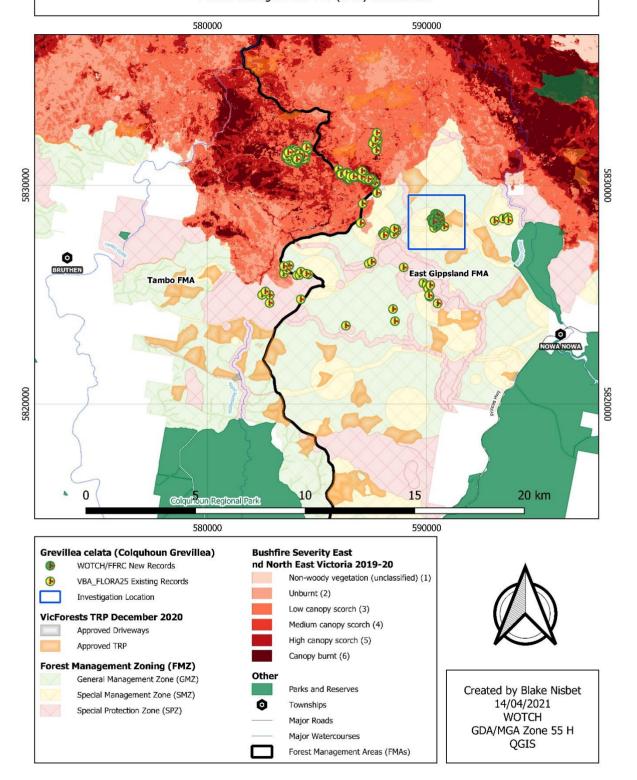


Figure 1. Map showing existing VBA records of *Grevillea celata* and the new records subject of this report in relation to the 2019-20 bushfire severity dataset.

Methods:

Grevillea celata flora survey:

- Geographic Information Systems (GIS) were first analysed to assess the prospects of *Grevillea celata* presence within VicForests coupe 803-504-0009. Existing records from the VBA_FLORA25 dataset showed two records of *G. celata* bordering the coupe, and the FMZ100_V_ZONE dataset showed an overlap of the subsequent 200m Special Protection Zone (SPZ) buffers with some of the coupe.
- On 8 December 2020, WOTCH & FFRC surveyors walked through parts of coupe 803-504-0009 looking for *G. celata* plants.
- For many individual plants that were detected, a waypoint was marked on a Garmin 66i GPS directly above the plant. These plants were all marked with a mountain symbol and were marked with a unique waypoint name (e.g. '0252')
- Photographs and videos were taken of a small sample of the plants found. The waypoints recorded for these plants were assigned a unique ID, e.g. 'COL03GC', whereby 'COL' represents the area code (Colquhoun), '03' represents the order in which plants were documented (3rd Grevillea photographed/recorded) and 'GC' represents the species identification (*Grevillea celata*).
- Only a small number of the *G. celata* plants encountered were photographed and marked with a waypoint. Further, some waypoints represent a patch of individual plants, for example 'COL05GC', represents a patch of up to 30 individual plants within an area of approximately 5m².
- Whilst none of the individuals were flowering, photos and videos were taken of a range of *G. celata* characteristics, including the root-suckering behaviour of *G. celata* plants which contributes to distinguishing *G. celata* from a similar species, Golden Grevillea (*G. chrysophaea*).
- A results table was prepared detailing the coordinates of each of the *Grevillea celata* plants recorded on the flora survey.
- The *Grevillea celata* waypoints were imported into GIS and a polygon area was created around the plants recorded with GPS waypoints on 08/12/20 and existing VBA records bordering the coupe to represent a minimum population extent. This minimum population extent was then buffered with 250m and 200m, to represent the minimum required 250m SMZ buffer and minimum recommended 200m SPZ buffer for this population as specified in the regulatory framework detailed below.

Results

During the flora survey on 8 December 2020, 67 locations of *Grevillea celata* were recorded as waypoints on a handheld GPS unit. Many of these waypoints represent 'patches' of plants which can represent up to as many as 30 individual plants within a 5m² area. 67 is therefore the minimum number of plants comprising the population at the investigation location. Only a small section of coupe 803-504-0009 was searched for *G. celata* and the actual population size of *G. celata* within and adjacent coupe 803-504-0009 is greater than that recorded in this survey and displayed on the maps in this report. All of the plants marked were located within VicForests coupe 803-504-0009. These plants ranged in size, from juvenile plants <10cm tall to larger shrubs about 1m tall and wide.

Results 1. Table 3. Threatened flora survey results from 08/12/20 within Colquhoun coupe 803-504-0009.

			Location				
Waypoin		Waypoint	(GDA / MGA	Within	Photos in	Video	Photo
t Name	Species	Symbol	Zone 55 H)	803-504-0009?	Results	Reference	Reference
			55 H 590472				
COL01GC	Grevillea celata	Summit	5828140	Yes	Yes	00380	DSC04383-85
			55 H 590572				
COL02GC	Grevillea celata	Summit	5828287	Yes	Yes	00381	DSC04386-93
			55 H 590631				
COL03GC	Grevillea celata	Summit	5828399	Yes	Yes	00382	DSC04394-97
			55 H 590600				
COL04GC	Grevillea celata	Summit	5828587	Yes	Yes	00383	DSC04402-08
			55 H 590486				
COL05GC	Grevillea celata	Summit	5828647	Yes	Yes	00386	DSC04414-18
			55 H 590343				
COL06GC	Grevillea celata	Summit	5828491	Yes	Yes	00387	DSC04419-23
6010766	C '!!!-!-	C	55 H 590321	W	V	00200	DCC04434 3C
COL07GC	Grevillea celata	Summit	5828320	Yes	Yes	00388	DSC04424-26
242	Grevillea celata	Summit	55 H 590486 5828141	Voc	No		
242	Grevillea Celata	Summit	55 H 590487	Yes	No	-	-
243	Grevillea celata	Summit	5828140	Yes	No	_	_
243	Grevilled celula	Summe	55 H 590503	163	NO		
252	Grevillea celata	Summit	5828196	Yes	No	_	_
LJL	Grevinea cerata	Summe	55 H 590493	163	110		
253	Grevillea celata	Summit	5828199	Yes	No	-	-
			55 H 590524				
262	Grevillea celata	Summit	5828291	Yes	No	-	-
			55 H 590534				
263	Grevillea celata	Summit	5828300	Yes	No	-	-
			55 H 590526				
272	Grevillea celata	Summit	5828599	Yes	No	-	-
			55 H 590494				
273	Grevillea celata	Summit	5828597	Yes	No	-	-
204	C : !!! ! - !	C	55 H 590254	V	N.		
291	Grevillea celata	Summit	5828458	Yes	No	-	-
2411	Grevillea celata	Summit	55 H 590472 5828134	Yes	No		
2411	Grevillea Celata	Summit	55 H 590486	res	INU	-	-
2441	Grevillea celata	Summit	55 H 590486 5828146	Yes	No	_	_
Z771	S. Evilled Celata	Julilint	55 H 590485	103	140		
2451	Grevillea celata	Summit	5828167	Yes	No	_	_
			55 H 590469				
2461	Grevillea celata	Summit	5828179	Yes	No	-	-
			55 H 590467				
2471	Grevillea celata	Summit	5828197	Yes	No	-	-
			55 H 590468				
2481	Grevillea celata	Summit	5828200	Yes	No	-	
2481	Grevillea celata	Summit	5828200	Yes	No	-	-

			FF 11 F00403				
2491	Grevillea celata	Cumanait	55 H 590492 5828191	Yes	No		
2491	Grevillea Celata	Summit		res	INU	-	-
2504	C	6	55 H 590494	V	N1 -		
2501	Grevillea celata	Summit	5828192	Yes	No	-	-
			55 H 590501				
2511	Grevillea celata	Summit	5828196	Yes	No	-	-
			55 H 590485				
2541	Grevillea celata	Summit	5828239	Yes	No	-	-
			55 H 590489				
2551	Grevillea celata	Summit	5828239	Yes	No	-	-
			55 H 590492				
2561	Grevillea celata	Summit	5828249	Yes	No	-	-
			55 H 590493				
2571	Grevillea celata	Summit	5828252	Yes	No	-	-
			55 H 590493				
2581	Grevillea celata	Summit	5828288	Yes	No	-	-
			55 H 590494				
2591	Grevillea celata	Summit	5828291	Yes	No	_	_
			55 H 590495				
2601	Grevillea celata	Summit	5828290	Yes	No	_	_
2001	Orevinea cerata	Summe	55 H 590516	163	140		
2611	Grevillea celata	Summit	5828294	Yes	No	_	_
2011	Grevinea celuta	Julilill	55 H 590539	163	INU		
26/1	Gravillas calata	Cummit		Voc	No		
2641	Grevillea celata	Summit	5828287	Yes	No	-	-
2554	0 "		55 H 590544	.,			
2651	Grevillea celata	Summit	5828299	Yes	No	-	-
			55 H 590571				
2661	Grevillea celata	Summit	5828290	Yes	No	-	-
			55 H 590598				
2671	Grevillea celata	Summit	5828588	Yes	No	-	-
			55 H 590598				
2681	Grevillea celata	Summit	5828607	Yes	No	-	-
			55 H 590562				
2691	Grevillea celata	Summit	5828599	Yes	No	-	-
			55 H 590563				
2701	Grevillea celata	Summit	5828598	Yes	No	-	-
			55 H 590562				
2711	Grevillea celata	Summit	5828601	Yes	No	-	-
	orevinea cerata		55 H 590488				
2741	Grevillea celata	Summit	5828585	Yes	No	_	_
2/41	Orevinea celata	Samme	55 H 590479	103	140		
2751	Grevillea celata	Summit	5828580	Yes	No		
2/31	Grevillea Celata	Summit		res	INU	-	-
2761	Carrillan salata	C	55 H 590482	V	N		
2761	Grevillea celata	Summit	5828579	Yes	No	-	-
	- "		55 H 590446				
2771	Grevillea celata	Summit	5828606	Yes	No	-	-
		_	55 H 590487				
2781	Grevillea celata	Summit	5828646	Yes	No		-
			55 H 590489				
2791	Grevillea celata	Summit	5828669	Yes	No	-	-
			55 H 590479				
2801	Grevillea celata	Summit	5828682	Yes	No		-
			55 H 590473				
2811	Grevillea celata	Summit	5828678	Yes	No	-	-
			55 H 590471				
2821	Grevillea celata	Summit	5828676	Yes	No	-	-
			55 H 590439				
2831	Grevillea celata	Summit	5828692	Yes	No	-	_
2031	Si evinea celata	Janimit	55 H 590389	103	140		
2841	Grevillea celata	Summit	55 H 590389 5828691	Voc	No		_
2041	Grevillea celata	Juiiiiill		Yes	No	-	-
2054	Crowillon and at	C	55 H 590331	Voc	N-		
2851	Grevillea celata	Summit	5828491	Yes	No	-	-
2051	6	· · ·	55 H 590333	.,			
2861	Grevillea celata	Summit	5828491	Yes	No	-	-
			55 H 590343				
2871	Grevillea celata	Summit	5828490	Yes	No	-	-
			55 H 590343				
2881	Grevillea celata	Summit	5828493	Yes	No		-

			55 H 590341				
2891	Grevillea celata	Summit	5828490	Yes	No	-	-
			55 H 590255				
2901	Grevillea celata	Summit	5828458	Yes	No	-	-
			55 H 590234				
2921	Grevillea celata	Summit	5828461	Yes	No	-	-
			55 H 590281				
2931	Grevillea celata	Summit	5828297	Yes	No	-	-
			55 H 590279				
2941	Grevillea celata	Summit	5828299	Yes	No	-	-
			55 H 590277				
2951	Grevillea celata	Summit	5828298	Yes	No	-	-
			55 H 590392				
2961	Grevillea celata	Summit	5828386	Yes	No	-	-
			55 H 590390				
2971	Grevillea celata	Summit	5828385	Yes	No	-	-
			55 H 590447				
2981	Grevillea celata	Summit	5828432	Yes	No	-	-
			55 H 590447				
2991	Grevillea celata	Summit	5828434	Yes	No	-	-
			55 H 590491				
3001	Grevillea celata	Summit	5828436	Yes	No	-	-

Results 2. Some photographs taken of *Grevillea celata* plants from the flora survey on 08/12/20 showing the GPS locations in the frame.





Figures 2a. *Grevillea celata* plant at waypoint 'COL01GC' within VicForests scheduled logging coupe 803-504-0009. Location 0590475 / 5828139 (GDA / MGA Zone 55 H).





Figures 2b. *Grevillea celata* plant at waypoint 'COL02GC' within VicForests scheduled coupe 803-504-0009. Location 0590573 / 5828287 (GDA / MGA Zone 55 H).





Figures 2c. *Grevillea celata* plant at waypoint 'COL03GC' within VicForests scheduled logging coupe 803-504-0009. Location 0590630 / 5828400 (GDA / MGA Zone 55 H).





Figures 2d. *Grevillea celata* plant at waypoint 'COL04GC' within VicForests scheduled logging coupe 803-504-0009. Location 0590600 / 5828587 (GDA / MGA Zone 55 H).





Figures 2e. *Grevillea celata* plant at waypoint 'COL05GC' within VicForests scheduled coupe 803-504-0009. Location 0590486 / 5828646 (GDA / MGA Zone 55 H).





Figures 2f. *Grevillea celata* plant at waypoint 'COL06GC' within VicForests scheduled logging coupe 803-504-0009. Location 0590345 / 5828492 (GDA / MGA Zone 55 H).





Figures 2g. *Grevillea celata* plant at waypoint 'COL07GC' within VicForests scheduled logging coupe 803-504-0009. Location 0590324 / 5828319 (GDA / MGA Zone 55 H).

WOTCH/FFRC new Grevillea celata records within VicForests scheduled coupe 803-504-0009; Minumum population extent, required 250m SMZ buffer and recommended 200m SPZ buffer surrounding the G. celata population; Existing VBA Flora records of G. celata; VicForests current Timber Release Plan (TRP); Existing Forest Management Zoning (FMZ); Roads, Watercourses & Contours.

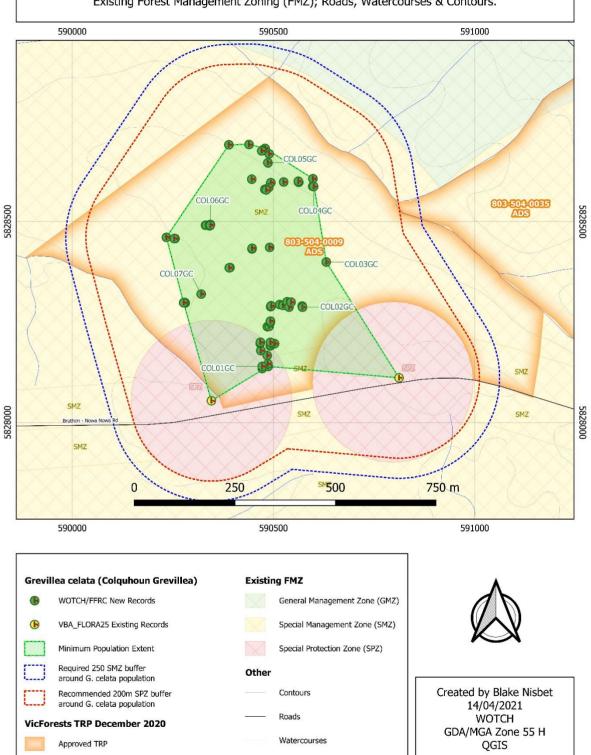


Figure 3. *Grevillea celata* plants within VicForests scheduled logging coupe 803-504-0009, required 250m SMZ buffer and recommended 200m SPZ buffer around minimum population. Existing VBA records and *G. celata* SPZs at the coupe.

Results 4. Attached is a GPX file containing the waypoints for *Grevillea celata* plant locations. The raw photographic and video evidence for waypoints 'COL01GC-COL07GC' are also attached along with some additional photos & videos taken on the survey.

Discussion:

The "Code of Practice for Timber Production 2014" (the Code) through its associated "Management Standards and Procedures for timber harvesting operations in Victoria's State forests 2014" (MSPs) and "Planning Standards for timber harvesting operations in Victoria's State forests 2014" (Planning Standards) requires the following management actions to be undertaken for populations of Colguhoun Grevillea (Grevillea celata) found in the East Gippsland FMA and in Gippsland FMAs:

Excerpts from: "Management Standards and Procedures for timber harvesting operations in Victoria's State forests 2014, The State of Victoria Department of Environment and Primary Industries 2014" (MSP's) 4

1. Introduction

1.1 Scope

1.1.1.1 The Management Standards and Procedures apply to all commercial timber harvesting operations conducted in Victoria's State forests where the Code applies.

2. Planning and Record Keeping

2.1 FMZ and planning information

2.1.1.1 When planning timber harvesting operations, the managing authority will refer to the FMZ100 geospatial layer published on the DEPI website and Corporate Geospatial Data Library for locations and information associated with FMZs.

2.1.1.3 Where evidence of a value that requires protection via the establishment or amendment of an SPZ or SMZ is found in the field application must be made to the Secretary or delegate prior to commencement of the timber harvesting operation to create or amend an SPZ or SMZ in accordance with Appendix 5 the Planning Standards. SMZ applications must be accompanied by an SMZ plan and must be complied with during timber harvesting operations.

4. Biodiversity

4.3 Flora

4.3.1.1 Apply management actions for rare and threatened flora identified within areas affected by timber harvesting operations as outlined in Appendix 3 Table 14 (Rare or threatened flora prescriptions). ... [Where evidence of this value is found in the field follow clause 2.1.1.3 of this document using

table 5 in Appendix 5 the Planning Standards for information.]

Excerpts from: "Planning Standards for timber harvesting operations in Victoria's State forests 2014, Appendix 5 to the [MSP's]" (Planning Standards) 5

4. Biodiversity

4.5 Flora – detection based zoning

Statewide

4.5.1.1 Apply the management actions outlined in Table 5 (Detection based FMZ rules for flora) below for zoned rare or threatened flora values.

⁴ MSP's, p. 21, 23, 32, 36, 98

⁵ Planning Standards, "Table 5 Detection based FMZ rules for flora", p. 69

Table 5 Detection based FMZ rules for flora. ⁵

FMA	Common name	Scientific name	Zoning management actions	Management actions	Review
East Gippsland	Colquhuon Grevillea	Grevillea celata	radius over verified populations.	Conduct a site inspection and detailed planning in consultation with DEPI to ensure the species is adequately protected during timber harvesting operations.	
Gippsland FMAs	Colquhoun Grevillea	Grevillea celata	Establish a SPZ of 200 m radius over each verified population.		

As outlined in the MSPs and Planning Standards, for each population of Colquhoun Grevillea in the East Gippsland FMA, an SMZ of 250m radius must be established as well as a site inspection and detailed planning that ensures the species is adequately protected from logging. To adequately protect the Colquhoun Grevillea population discovered within VicForests' coupe 803-504-0009, DELWP should establish a minimum protection area of 200m and zone this area as a Special Protection Zone in line with the requirements to protect this species in the nearby Tambo FMA (Gippsland FMAs). ⁵ For example, 200m Special Protection Zones for *G. celata* established by DELWP within the East Gippsland FMA can be seen in Figure 3.

Figure 3 displays the minimum population extent discovered within coupe 803-504-0009 resulting from the limited number of *G. celata* plants recorded with waypoints during the 08/12/20 flora survey. The actual *G. celata* population extent at this location likely extends beyond the area recorded and that is displayed in Figure 3. Correspondingly, the extent of the minimum required 250m SMZ and the 200m SPZ buffers discussed above (shown in Figure 3) represents only the minimum protective buffers for this population of the threatened *Grevillea celata*. Further surveys are required to determine the full extent of this population and therefore to determine the full extent of the buffer areas to be established.

Clause 2.2.2.4 of the Code requires identification of biodiversity values listed in the MSPs and Planning Standards before harvesting. Risks to these values must be addressed through actions consistent with the MSPs and Planning Standards such as those discussed above. Neither VicForests nor the Department have undertaken flora surveys in either of coupes 803-504-0009 & 803-504-0035, despite there being existing VBA records on the borders of coupe 803-504-0009 (Figure 3). Failure to identify and protect the full extent of the *G. celata* population in both coupes 803-504-0009 and 803-504-0035 will be a breach of the Code.

All of VicForests logging coupes on the current TRP within the limited range of the threatened *G. celata,* as seen in Figure 1, must be thoroughly surveyed for the species prior to timber harvesting so that management actions can be undertaken to adequately protect the species.

⁵ Planning Standards, "Table 5 Detection based FMZ rules for flora", p. 71, 74, 81

Conclusions and Recommendations

This investigation took place in VicForests scheduled logging coupe 803-504-0009 on 8 December 2020 by both WOTCH and FFRC surveyors. The flora survey undertaken by WOTCH/FFRC marked 67 threatened *Grevillea celata* plants within coupe 803-504-0009 and identified many more *G. celata* plants throughout the area walked within the coupe which were not marked. A small sample of the individuals comprising this population were documented with photographs and videos, as seen in the results section of this report and attachments. The 67 plants which were marked represent the minimum population size and are extremely significant to the survival and recovery of the species after 56% of its habitat/records were affected by the 2019-20 bushfires.

Figure 3 maps the minimum required 250 SMZ buffer around this population of *G. celata* as per the MSPs and Planning Standards, which triggers a "site inspection and detailed planning in consultation with DEPI to ensure the species is adequately protected during timber harvesting operations". To adequately protect the Colquhoun Grevillea population discovered within VicForests' coupe 803-504-0009, DELWP should establish a minimum protection area of 200m and zone this area as a Special Protection Zone in line with the requirements to protect this species in the nearby Tambo FMA (Gippsland FMAs).

There is no evidence of any flora surveys which have taken place within coupe 803-504-0009 during VicForests pre-harvest surveys, or within neighboring coupe 803-504-0035 which is scheduled to be logged this month. The failure to identify and protect the full extent of this *G. celata* population within both coupes 803-504-0009 and 803-504-0035 will be a breach of the Code. To protect this species, all coupes on the VicForests TRP within and surrounding the known range of *G. celata* must be subject to thorough flora surveys targeted towards the identification of *G. celata* plants, in accordance with Clause 2.2.2.4 of the Code.

In response to this report and in accordance with the MSPs and Planning Standards, DELWP must restrain VicForests from logging in coupes 803-504-0009 and 803-504-0035 and conduct a site inspection and detailed planning to ensure the species is adequately protected from logging.

- This site inspection must involve a thorough flora survey within and surrounding the minimum population extent (Figure 3) to identify the full population extent of *G. celata*.
- This site inspection must also expand from coupe 803-504-0009 into adjacent coupe 803-504-0035, which is within the minimum 250m SMZ buffer around the minimum population extent (Figure 3).
- This site inspection must take place before any logging operations occur within coupes 803-504-0009 and 803-504-0035.
- Once the full *G. celata* population extent is known, DELWP must establish a SMZ of 250 m radius over verified populations.

In order to adequately protect the full Colquhoun Grevillea population extent, DELWP should establish a minimum protection area of 200m radius around the full population and zone this area as a Special Protection Zone, in line with the requirements to protect this species in the nearby Tambo FMA, and as seen implemented within the East Gippsland FMA in Figure 3.

We recommend coupes 803-504-0009 and 803-504-0035 should be removed from VicForests Timber Release Plan as they contain extremely important habitat/populations of the threatened *G. celata* and are crucial to the survival and recovery of the species following the 2019-20 bushfires. In order to protect this species, all coupes on the VicForests TRP within and surrounding the known range of *G. celata* should be subject to thorough flora surveys targeting the identification of *G. celata* plants, and we recommend that DELWP restrain all logging operations from occurring within and surrounding any known habitat for the species after the 2019-20 bushfires and in coupes which contain *G. celata* plants and populations.



We respectfully acknowledge the Taungurung, Wurundjeri and Gunaikurnai Elders past, present and emerging, the Traditional Custodians who have never ceded ownership of the land on which we live, travel, work and play.