

## Supplementary Material

### **Predictively modelling the distribution of the threatened brush-tailed rock-wallaby (*Petrogale penicillata*) in Oxley Wild Rivers National Park, north-eastern New South Wales, Australia**

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**Appendix S1.** The original categories contained within the categorical variables that were aggregated into classes based upon dominant features. Geology contained 13 variables which were aggregated into three variables (Table S1.1). Vegetation contained 35 variables that were aggregated into 15 variables (Table S1.2). These categories were given corresponding codes in the form of numbers, as categories must be displayed as numbers rather than words (Phillips 2017).

**Table S1.** Original categories contained within the geology variable. The original categories were aggregated based upon dominant rock types found in Oxley Wild Rivers National Park, New South Wales, Australia.

Original categories	Aggregated category
CPd (igneous mafic intrusive) Czb (igneous mafic volcanic) Pd (igneous mafic intrusive; igneous intermediate intrusive) Pg (igneous felsic intrusive) Rf (igneous felsic volcanic) Rg (igneous felsic intrusive)	Igneous
CS (metasedimentary siliciclastic; sedimentary siliciclastic; felspar or lithic-rich arenite to rudite) Py (metasedimentary siliciclastic) SDy (metasedimentary siliciclastic; sedimentary non-carbonate chemical or biochemical)	Metasedimentary
DCs (sedimentary siliciclastic; metasedimentary siliciclastic) Ps (sedimentary siliciclastic) Pw (sedimentary siliciclastic; igneous felsic-intermediate intrusive)	Sedimentary

**Table S2.** Original categories contained within the vegetation variable. The original categories were aggregated based upon dominant vegetation features and/or topology.

Original categories	Aggregated category	Code
Bare rock (solid bedrock and/or scree slope)	Bare rock (solid bedrock and/or scree slope)	1
Plateau derived grassland	Plateau derived grassland	2
Gorge/valley grassland	Gorge/valley grassland	3
Fen/low wet heath of Racecourse Swamp wet herbfield/fen of Apsley Falls Plateau	Fen/herbfield/wet heath	4
Sparse riparian shrubland on bedrock Gravel bed with or without shrubs	Sparse shrubland on bedrock/gravel bed	5
Lantana thicket	Lantana thicket	6
Gorge wattle dry heath/shrubland Southern dry heath/shrubland Carrai Plateau dry heath/shrubland Ignimbrite dry heath/shrubland Wattle regrowth	Dry heath/shrubland	7
Blake's wattle shrubland/woodland/dry forest Dry plateau eucalypt woodland Gorge/valley woodland/dry sclerophyll forest Shining gum hardwood plantation Black she-oak woodland/forest Bull-oak woodland Black cypress pine woodland	Dry sclerophyll woodland/forest	8
Moist plateau eucalypt forest Wet sclerophyll forest	Moist sclerophyll woodland/forest	9
Plateu river oak riparian woodland/forest Valley river oak riparian woodland/forest	Oak riparian woodland/forest	10
Hillgrove spotted gum overtopping dry rainforest	Dry rainforest overtopped by <i>Eucalyptus</i> sp.	11
Sparse rainforest shrubs/small trees on rocks	Sparse rainforest shrubs/small trees on rocks	12
Riparian dry rainforest Low dry rainforest Tall dry rainforest	Dry rainforest	13
Warm-temperate rainforest Cool-temperate rainforest Sub-tropical rainforest	Temperate/sub-tropical rainforest	14
Tantoon teatree regrowth Tantoon teatree and wet heath of Brumby Lagoon	Tantoon tree shrubland	15