

Supplementary material

Appendix 1

Table A1. Standard deviation of importance values for each habitat variable, for all species (Among), and average standard deviation within guilds for different guild classifications.

	Among	Habitat	Foraging niche	Feeding	Nesting	Conservation status
LONGITUDE	0.25	0.14	0.23	0.21	0.33	0.21
LATITUDE	0.1	0.09	0.07	0.11	0.08	0.1
sm.tr	0.09	0.05	0.06	0.06	0.13	0.08
md.tr	0.02	0.03	0.02	0.02	0.02	0.03
lg.tr	0.03	0.03	0.02	0.03	0.02	0.02
vl.tr	0.02	0.02	0.02	0.02	0.02	0.01
tr.tot	0.07	0.04	0.05	0.05	0.1	0.06
HBT	0.02	0.02	0.02	0.02	0.03	0.02
sh.spp	0.02	0.02	0.03	0.02	0.02	0.02
sh.den	0.06	0.05	0.07	0.04	0.04	0.04
st.ha	0.04	0.04	0.05	0.03	0.02	0.03
tr.ht	0.04	0.04	0.03	0.04	0.03	0.03
ll.cm	0.1	0.1	0.08	0.11	0.07	0.08
CWD.den	0.1	0.11	0.06	0.1	0.07	0.07
CWD.vol	0.02	0.02	0.02	0.02	0.03	0.02
FPC	0.03	0.03	0.02	0.03	0.03	0.03
l.sh.cov	0.03	0.03	0.04	0.02	0.04	0.03
h.sh.cov	0.04	0.03	0.04	0.04	0.04	0.03
b.g.cov	0.03	0.03	0.03	0.02	0.02	0.03
c.l.cov	0.08	0.09	0.06	0.08	0.04	0.06
f.l.cov	0.06	0.06	0.04	0.05	0.03	0.07
g.cov	0.04	0.03	0.04	0.03	0.03	0.04
r.cov	0.04	0.04	0.02	0.03	0.03	0.03
d.vs.ha	0.02	0.03	0.01	0.02	0.02	0.01
n.d.tr	0.02	0.01	0.01	0.01	0.01	0.02
d.hbt	0.02	0.01	0.01	0.02	0.02	0.02
N.HBT	0.08	0.08	0.05	0.08	0.06	0.07
n.d.hbt	0.02	0.03	0.01	0.02	0.02	0.02
gb.ba	0.02	0.02	0.02	0.02	0.02	0.03
ri.ba	0.17	0.13	0.18	0.17	0.15	0.14
yg.ba	0.06	0.05	0.05	0.04	0.05	0.05
rb.ba	0.02	0.02	0.02	0.02	0.02	0.02
yb.ba	0.02	0.01	0.01	0.02	0.01	0.02

llb.ba	0.03	0.03	0.03	0.03	0.03	0.04
rs.ba	0.05	0.03	0.02	0.05	0.04	0.04
rrg.ba	0.02	0.02	0.01	0.01	0.01	0.01
gm.ba	0.01	0.01	0	0.01	0	0.01
wb.ba	0.02	0.02	0.02	0.02	0.02	0.02
ex.ba	0.01	0.01	0.01	0.01	0.01	0.01
bu.ba	0.01	0.01	0.01	0.01	0.01	0.01
she.ba	0	0.01	0	0	0	0
dead.ba	0.01	0.01	0.01	0.01	0.01	0.02

Table A2. List of all species, species' classifications by general habitat and whether declining or not, best modelling method, $R^2_{dev(cv)}$ values for the best model, and the margin by which it was best over the 2nd-best model.

Common name	Species	Habitat	Declining	Best model	$R^2_{dev(cv)}$	Margin
Australian magpie	<i>Gymnorhina tibicen</i> Latham	Open-country	No	CONS	0.62	0.01
Australian raven	<i>Corvus coronoides</i> Vigors & Horsfield	Open-country	No	RF	0.44	0.02
Black-chinned honeyeater	<i>Melithreptus gularis</i> Gould	NA	NA	RF	0.40	0.04
Black-faced cuckoo-shrike	<i>Coracina novaehollandiae</i> Gmelin	NA	NA	RF	0.15	0
Brown-headed honeyeater	<i>Melithreptus brevirostris</i> Vigors & Horsfield	Woodland-dependent	No	RF	0.34	0.02
Brown treecreeper	<i>Climacteris picumnus</i> Temminck	Woodland-dependent	No	RF	0.18	0.04
Buff-rumped thornbill	<i>Acanthiza reguloides</i> Vigors & Horsfield	Woodland-dependent	Yes	BART	0.40	0.02
Common bronzewing	<i>Chaps chalcoptera</i> Latham	Woodland-dependent	No	BART	0.07	0.02
Crested bellbird	<i>Oreoica gutturalis</i> Vigors & Horsfield	Woodland-dependent	Yes	RF	0.37	0.08
Crested shrike-tit	<i>Falcunculus frontatus</i> Latham	Woodland-dependent	Yes	CONS	0.13	0.01
Crimson rosella	<i>Platycercus elegans</i> Gmelin	Woodland-dependent	No	CONS	0.51	0.05
Dusky woodswallow	<i>Artamus cyanopterus</i> Latham	Woodland-dependent	No	RF	0.11	0.02
Eastern rosella	<i>Platycercus eximius</i> Shaw	Open-tolerant	No	CONS	0.13	0
Eastern yellow robin	<i>Eopsaltria australis</i> Shaw	NA	NA	CONS	0.14	0.01
Fuscous honeyeater	<i>Lichenostomus fuscus</i> Gould	Woodland-dependent	No	RF	0.44	0.01
Galah	<i>Cacatua roseicapilla</i> Vieillot	Open-country	No	RF	0.35	0.03
Golden whistler	<i>Pachycephala pectoralis</i> Latham	Woodland-dependent	No	CONS	0.19	0.01
Grey currawong	<i>Strepera versicolor</i> Latham	Open-tolerant	No	BART	0.40	0.01
Grey fantail	<i>Rhipidura fuliginosa</i> Gould	Woodland-dependent	No	CONS	0.37	0.06
Grey shrike-thrush	<i>Colluricincla harmonica</i> Latham	Woodland-dependent	No	RF	0.36	0.01
Laughing kookaburra	<i>Dacelo novaeguineae</i> Hermann	Open-tolerant	No	CONS	0.18	0.03
Little lorikeet	<i>Glossopsitta pusilla</i> Shaw	Woodland-dependent	Yes	CONS	0.30	0.01
Little raven	<i>Corvus mellori</i> Mathews	Open-country	No	RF	0.32	0.04
Magpie-lark	<i>Grallina cyanoleuca</i> Latham	Open-country	No	BART	0.36	0
Musk lorikeet	<i>Glossopsitta concinna</i> Shaw	Woodland-dependent	No	RF	0.38	0.02
Noisy miner	<i>Manorina melanocephala</i> Latham	Open-tolerant	No	RF	0.38	0
Olive-backed oriole	<i>Oriolus sagittatus</i> Latham	Woodland-dependent	No	RF	0.34	0.01
Purple-crowned lorikeet	<i>Glossopsitta porphyrocephala</i> Dietrichsen	Woodland-dependent	No	CONS	0.13	0.02
Red-rumped parrot	<i>Psephotus haematonotus</i> Gould	Open-tolerant	No	RF	0.53	0
Red wattlebird	<i>Anthochaera carunculata</i> Shaw	Woodland-dependent	No	RF	0.32	0.04
Restless flycatcher	<i>Myiagra inquieta</i> Latham	Open-tolerant	Yes	CONS	0.28	0
Rufous whistler	<i>Pachycephala rufiventris</i> Latham	Woodland-dependent	No	RF	0.43	0.03

Scarlet robin	<i>Petroica boodang</i> Lesson	Woodland-dependent	Yes	BART	0.37	0.02
Spotted pardalote	<i>Pardalotus punctatus</i> Shaw	Woodland-dependent	No	RF	0.48	0.01
Striated pardalote	<i>Pardalotus striatus</i> Gmelin	Open-tolerant	No	RF	0.28	0.02
Sulphur-crested cockatoo	<i>Cacatua galerita</i> Latham	Open-tolerant	No	RF	0.27	0.02
Superb fairy-wren	<i>Malurus cyaneus</i> Ellis	Woodland-dependent	No	BART	0.30	0.01
Weebill	<i>Smicrornis brevirostris</i> Gould	Woodland-dependent	No	BART	0.41	0.01
Welcome swallow	<i>Hirundo neoxena</i> Gould	Open-country	No	RF	0.29	0.02
White-browed babbler	<i>Pomatostomus superciliosus</i> Vigors & Horsfield	Woodland-dependent	Yes	RF	0.06	0
White-browed woodswallow	<i>Artamus superciliosus</i> Gould	Open-tolerant	No	BART	0.31	0.01
White-naped honeyeater	<i>Melithreptus lunatus</i> Vieillot	Woodland-dependent	No	RF	0.18	0
White-plumed honeyeater	<i>Lichenostomus penicillatus</i> Gould	Woodland-dependent	No	RF	0.62	0.03
White-throated treecreeper	<i>Cormobates leucophaea</i> Latham	Woodland-dependent	No	RF	0.51	0.01
White-winged chough	<i>Corcorax melanorhamphos</i> Vieillot	NA	NA	CONS	0.51	0.44
Willie wagtail	<i>Rhipidura leucophrys</i> Latham	Open-tolerant	No	RF	0.33	0.01
Yellow-tufted honeyeater	<i>Lichenostomus melanops</i> Latham	Woodland-dependent	No	RF	0.44	0.04
