

Supplementary material

Genetic structure and sex-biased dispersal of a declining cooperative-breeder, the Grey-crowned Babbler, *Pomatostomus temporalis*, at the southern edge of the species' range

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Table S1. Global characterisation of 13 microsatellite loci of the Grey-crowned babbler within its southern-most distribution

Averages are shown in the last row, and loci that deviated from HWE within a genetic cluster are marked with an asterisk. N_a = number of samples that amplified for that locus; A = number of alleles; H_o = observed heterozygosity; H_e = expected heterozygosity

Locus	N_a	A	H_o	H_e
Pte17	135	4	0.50	0.46
Pte24	135	4	0.51	0.49
Pte42	135	9	0.53	0.57
Pte47	135	5*	0.59	0.64
Pte48	135	4	0.59	0.64
Pte50	135	11*	0.81	0.86
Pte101	135	15	0.84	0.88
Pte102	134	19	0.90	0.90
Pte103	135	13	0.88	0.89
Pte105	135	7	0.80	0.81
Pte106	135	8	0.81	0.82
Pte108	135	13	0.80	0.87
Pte109	135	31*	0.88	0.93
Mean	135	11.00	0.73	0.75

Table S2. FRAGSTATS landscape dispersed and aggregated statistics for tree cover in the east and west regions

Indices of tree cover aggregation calculated from 100 m pixel tree cover raster for the combined east regions, and the west region, in FRAGSTATS v. 4 (McGarigal *et.al.* 2012) indicating whether the indices show support for the east regions having higher levels of dispersed tree cover than the west region

Fragstats Metric	Region		Support for tree cover being more dispersed in the east and aggregated in the west	Description/comment
	East	West		
Number of patches	49739	23650	y	total number of patches greater in east
Patch Density	1.62	0.77	y	number of patches/ha
Landscape shape index	178.62	118.69	y	west has lower edge density or total edge, standardised for landscape size
Mean patch area	10.62	13.65	y	Larger (aggregated) patches in west
Euclidean nearest neighbour patch distance	304.50	366.18	y	east patches closer together
Clumpy	0.70	0.77	y	west is marginally more clumpy i.e. Contagion is higher, for example, when a single class occupies a very large percentage of the landscape, and is inversely related to edge density
Percentage of like adjacencies	75.41	79.10	y	west has greater aggregation of patch types e.g. larger patches with compact shapes
Cohesion	97.83	98.00	y (marginal)	west has slightly more Patch cohesion i.e. as the value increases the patch type becomes more clumped or aggregated in its distribution; hence, more physically connected/larger patches
Aggregation index	75.51	79.24	y	(%) AI increases as the landscape is increasingly aggregated and equals 100 when the landscape consists of a single patch
Normalised landscape shape index	0.24	0.21	y	west is slightly less checkerboard landscape than east i.e. it has less edges of patches