

Luna, L. W., Souza, T. O., Carneiro, L. S., de Girão e Silva, W. A., Schneider, H., Sampaio, I., Araripe, J. and do Rêgo, P. S. 2017. Molecular data and distribution dynamics indicate a recent and incomplete separation of manakins species of the genus *Antilophia* (Aves: Pipridae) in response to Holocene climate change. – J. Avian Biol. doi: 10.1111/jav.01378

Supplementary material

Table A1 List of the sample codes, localities, and geographic coordinates of the specimens analyzed in the present study.

Sample code	Species	Locality	Coordinate		GenBank Access Number				
			(Decimal Degree)	CR	COI	ND3	G3PDH	I7BF	Myo
Aga03	<i>Antilophia galeata</i>	Brasília – Distrito Federal	-15.874167, -48.002222	MF359025	MF359057	MF359081	MF359037	MF359045	MF359072/ MF359073
Aga04	<i>Antilophia galeata</i>	Brasília – Distrito Federal	-15.874167, -48.002222	MF359026	MF359058	MF359082	MF359037	MF359045	MF359074
Aga05	<i>Antilophia galeata</i>	Brasília – Distrito Federal	-15.874167, -48.002222	MF359025	MF359057	MF359083	MF359037	MF359046/ MF359047	MF359074
Aga06	<i>Antilophia galeata</i>	Brasília – Distrito Federal	-15.674167, -47.865556	MF359025	MF359057	MF359081	MF359038	MF359045	MF359074
Aga09	<i>Antilophia galeata</i>	Brasília – Distrito Federal	-15.674167, -47.865556	MF359027	MF359059	MF359084	MF359037	MF359045/ MF359048	MF359074
Aga10	<i>Antilophia galeata</i>	Brasília – Distrito Federal	-15.790556, -47.738611	MF359028	MF359060	MF359085	MF359038	MF359045/ MF359046	MF359074
Aga11	<i>Antilophia galeata</i>	Brasília – Distrito Federal	-15.790556, -47.738611	MF359025	MF359057	MF359081	MF359037	MF359045	MF359073/ MF359074
Aga12	<i>Antilophia galeata</i>	Brasília – Distrito Federal	-15.790556, -47.738611	MF359029	MF359061	MF359085	MF359037	MF359045/ MF359048	MF359074/ MF359075
Aga13	<i>Antilophia galeata</i>	Brasília – Distrito Federal	-15.699444, -47.702778	MF359026	MF359062	MF359082	MF359037	MF359045/ MF359049	MF359074/ MF359076
Aga14	<i>Antilophia galeata</i>	São Carlos –	-21.965278,	MF359025	MF359058	MF359086	MF359037	MF359046/	MF359074

		São Paulo	-47.717222					MF359050	
Aga17	<i>Antilophia galeata</i>	São Carlos – São Paulo	-21.965278, -47.717222	MF359030	MF359061	MF359087	MF359039	MF359045	MF359074/ MF359076
Aga19	<i>Antilophia galeata</i>	Iramaia – Bahia	-13.289722, -40.934167	MF359031	MF359063	MF359088	MF359037	MF359045	MF359074
Aga21	<i>Antilophia galeata</i>	Iramaia – Bahia	-13.289722, -40.934167	MF359032	MF359064	MF359089	MF359037	MF359045/ MF359049	MF359074
Aga22	<i>Antilophia galeata</i>	Iramaia – Bahia	-13.289722, -40.934167	MF359033	MF359059	MF359081	MF359037	MF359045	MF359074
Aga27	<i>Antilophia galeata</i>	Uruçuí - Piauí	-7.759444, -44.540556	MF359029	MF359065	MF359090	MF359037	MF359045/ MF359051	MF359074
Aga28	<i>Antilophia galeata</i>	Uruçuí - Piauí	-7.759444, -44.540556	MF359034	MF359066	MF359082	MF359040/ MF359041	MF359049	MF359074
Aga29	<i>Antilophia galeata</i>	Uruçuí - Piauí	-7.759444, -44.540556	MF359027	MF359059	MF359091	MF359037/ MF359041/	MF359050	MF359074
Aga30	<i>Antilophia galeata</i>	Uruçuí - Piauí	-7.204444, -44.897778	MF359029	MF359067	MF359085	MF359037/ MF359040	MF359045	MF359074/ MF359076
Aga32	<i>Antilophia galeata</i>	Uruçuí - Piauí	-7.204444, -44.897778	MF359035	MF359068	MF359090	MF359037/ MF359041	MF359045/ MF359049	MF359074/ MF359077
Aga33	<i>Antilophia galeata</i>	Uruçuí - Piauí	-7.566389, -44.064444	MF359029	MF359060	MF359090	MF359037/ MF359041	MF359045	MF359074
Aga34	<i>Antilophia galeata</i>	Uruçuí - Piauí	-7.566389, -44.064444	MF359036	MF359069	MF359090	MF359037/ MF359041	MF359045	MF359074
Aga35	<i>Antilophia galeata</i>	Uruçuí - Piauí	-7.566389, -44.064444	MF359029	MF359060	MF359092	MF359037/ MF359041	MF359045/ MF359050	MF359074

Abo02	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.230000, -39.474444	KY788006*	MF359054	MF359079	KY788012*	KY788015*	MF359071
Abo03	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.230000, -39.474444	KY788007*	MF359054	MF359079	KY788012*	KY788015*	MF359071
Abo04	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.219444, -39.473611	KY788006*	MF359055	MF359080	KY788012*	KY788015*	MF359071
Abo05	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.219444, -39.473611	KY788007*	MF359054	MF359079	KY788012*	KY788015*	MF359071
Abo06	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.219444, -39.473611	KY788007*	MF359054	MF359079	KY788012*	KY788015*	MF359071
Abo07	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.238333, -39.472222	KY788006*	MF359056	MF359079	KY788012*	KY788015*	MF359071
Abo08	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.238333, -39.472222	KY788006*	MF359055	MF359080	KY788012*	KY788015*	MF359071
Abo09	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.261389, -39.470556	KY788007*	MF359054	MF359079	KY788012*	KY788015*	MF359071
Abo10	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.261389, -39.470556	KY788008*	MF359054	MF359080	KY788012*	KY788015*	MF359071
Abo11	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.261389, -39.470556	KY788008*	MF359055	MF359080	KY788012/ KY788013*	KY788015*	MF359071
Abo12	<i>Antilophia</i>	Chapada do	-7.307500, -39.395556	KY788006*	MF359055	MF359080	KY788012*	KY788015*	MF359071

	<i>bokermannii</i>	Araripe – Ceará							
Abo14	<i>Antilophia</i> <i>bokermannii</i>	Chapada do Araripe - Ceará	-7.307500, -39.395556	KY788007*	MF359054	MF359079	KY788012/ KY788013*	KY788015*	MF359071
Abo15	<i>Antilophia</i> <i>bokermannii</i>	Chapada do Araripe - Ceará	-7.307500, -39.395556	KY788007*	MF359054	MF359080	KY788012*	KY788015*	MF359071
Abo17	<i>Antilophia</i> <i>bokermannii</i>	Chapada do Araripe - Ceará	-7.332778, -39.412500	KY788009*	MF359055	MF359080	KY788012/ KY788014*	KY788015*	MF359071
Abo19	<i>Antilophia</i> <i>bokermannii</i>	Chapada do Araripe - Ceará	-7.374444, -39.369167	KY788007*	MF359056	MF359079	KY788012*	KY788015*	MF359071
Abo20	<i>Antilophia</i> <i>bokermannii</i>	Chapada do Araripe - Ceará	-7.374444, -39.369167	KY788006*	MF359055	MF359080	KY788012/ KY788014*	KY788015*	MF359071
Abo22	<i>Antilophia</i> <i>bokermannii</i>	Chapada do Araripe - Ceará	-7.366389, -39.330556	KY788007*	MF359055	MF359080	KY788012*	KY788015*	MF359071
Abo23	<i>Antilophia</i> <i>bokermannii</i>	Chapada do Araripe - Ceará	-7.366389, -39.330556	KY788007*	MF359054	MF359079	KY788012*	KY788015*	MF359071
Abo24	<i>Antilophia</i> <i>bokermannii</i>	Chapada do Araripe - Ceará	-7.366389, -39.330556	KY788007*	MF359055	MF359079	KY788012/ KY788013*	KY788015/ KY788016*	MF359071
Abo25	<i>Antilophia</i> <i>bokermannii</i>	Chapada do Araripe - Ceará	-7.366389, -39.330556	KY788010*	MF359055	MF359080	KY788012*	KY788015*	MF359071
Abo27	<i>Antilophia</i> <i>bokermannii</i>	Chapada do Araripe - Ceará	-7.366944, -39.315833	KY788007*	MF359056	MF359079	KY788012/ KY788014*	KY788015*	MF359071

Abo31	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.391667, -39.261389	KY788011*	MF359056	MF359079	KY788012*	KY788015*	MF359071
Abo34	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.411667, -39.234722	KY788006*	MF359055	MF359080	KY788012*	KY788015*	MF359071
Abo35	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.411667, -39.234722	KY788007*	MF359054	MF359079	KY788012*	KY788015/ KY788017*	MF359071
Abo36	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.411667, -39.234722	KY788007*	MF359056	MF359079	KY788012*	KY788015*	MF359071
Abo37	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.411667, -39.234722	KY788006*	MF359055	MF359080	KY788012/ KY788014*	KY788015*	MF359071
Abo41	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.410833, -39.202778	KY788006*	MF359055	MF359080	KY788012*	KY788015*	MF359071
Abo42	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.410833, -39.202778	KY788010*	MF359056	MF359079	KY788012*	KY788015*	MF359071
Abo44	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.405556, -39.164722	KY788008*	MF359054	MF359079	KY788012*	KY788015*	MF359071
Abo45	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.405556, -39.164722	KY788008*	MF359056	MF359079	KY788012*	KY788015*	MF359071
Abo46	<i>Antilophia bokermanni</i>	Chapada do Araripe - Ceará	-7.405556, -39.164722	KY788007*	MF359056	MF359079	KY788012*	KY788015*	MF359071
LIE0001	<i>Lepdothrix iris</i>	Novo Progresso	-3.356111,	-	MF359070	MF359093	MF359042	MF359052	MF359078

		- Pará	-54.949167						
LIE0190	<i>Lepdothrix iris</i>	Novo Progresso	-3.356111,	-	MF359070	MF359094	MF359043/ MF359044	MF359053	MF359078
		- Pará	-54.949167						

*GeneBank accesse number in: Luna, L W., Souza, O. T., Silva, W., Schneider, H., Sampaio, I., Araripe, J., Rêgo, P. S. 2017. Genetic variation of the endangered Araripe Manakin (*Antilophia bokermanni*) indicates a history of demographic decline. – Braz. J. Ornithol. *In press*.

Table A2 Primer sequences and amplification conditions for the mitochondrial and nuclear fragments analyzed.

Gene	Primer	T_a (°C)	Sequence (5' – 3')	Source
Control Region	H-739	57	ACC GGG TTG CTT GTT TCT CGT G	Sorenson et al. (1999)
	CytB-End		CGA ACA CCC ATT CAT CAT CA	Bensch and Harlid (2000)
COI	COI907aH2	55	GTR GCN GAY GTR AAR TAT GCT CG	Tavares and Baker (2008)
	LTyr		TGT AAA AAG GWC TAC AGC CTA ACG C	
ND3	H11100	56	TCT GCT CAT TCT AGT CCT CCT TG	Sorenson et al. (1999)
	L10906		CCC TAC GAA TGT GGA TTC GAC CC	
G3PDH	13b	56	TCC ACC TTT GAT GCG GGT GCT GGC AT	Fjeldså et al. (2003)
	14b		AAG TCC ACA ACA CGG TTG CTG TA	
I7BF	FIB-BI7H	52	GGA GAA AAC AGG ACA ATG ACA ATT CAC	Prychitko and Moore (1997)
	FIB-BI7L		TCC CCA GTA GTA TCT GCC ATT AGG GTT	
Myo	Myo 2	59	TCT AAA CTT GGA TAT TCA CAT	Irestedt et al. (2002)
	Myo 3f		CTA TAT TAC ATA AGA CCT GTC A	

Table A3 Best partitioning scheme and the best-fit models selected for each partition evaluated in PartitionFinder by the Bayesian Information Criterion (BIC).

Subset	Best model	Subset partitions	Subset sites
1	HKY+I	rc_codon1, rc_codon2, rc_codon3	1-348\3, 2-348\3, 3-348\3
2	HKY	coi_codon1, coi_codon2, coi_codon3	349-1214\3, 350-1214\3, 351- 1214\3
3	TrN	nd3_codon1, nd3_codon2, nd3_codon3	1215-1594\3, 1216-1594\3, 1217-1594\3
4	JC	g3pdh_codon1, g3pdh_codon2, g3pdh_codon3	1595-1933\3, 1596-1933\3, 1597-1933\3
5	HKY	i7bf_codon1, i7bf_codon2, i7bf_codon3	1934-2922\3, 1935-2922\3, 1936-2922\3
6	JC	myo_codon1, myo_codon2, myo_codon3	2923-3636\3, 2924-3636\3, 2925-3636\3

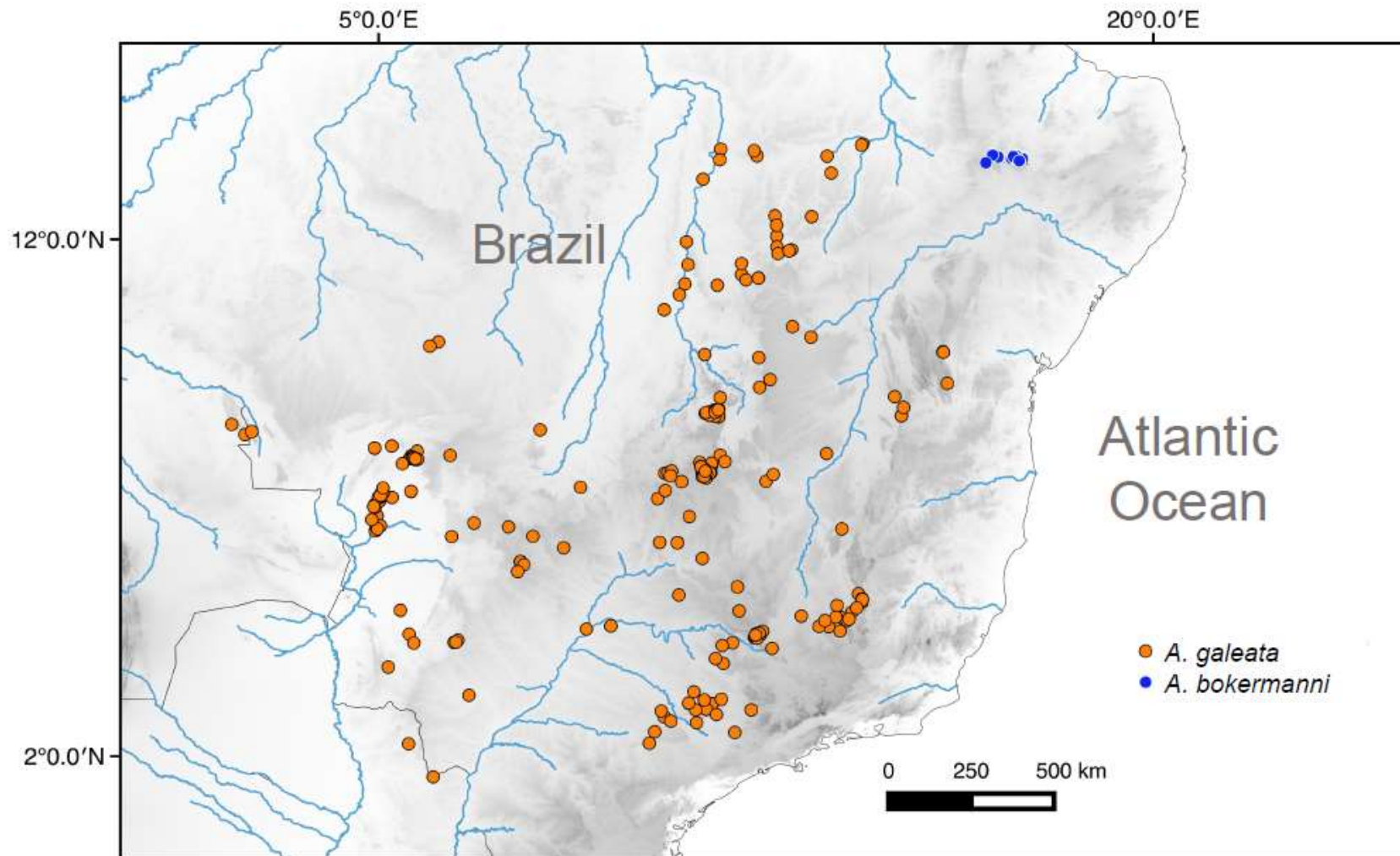


Figure A1 Map to determine the occurrence localities for *Antilophia galeata* (orange) and *Antilophia bokermanni* (blue) for the species modeling distribution dataset.

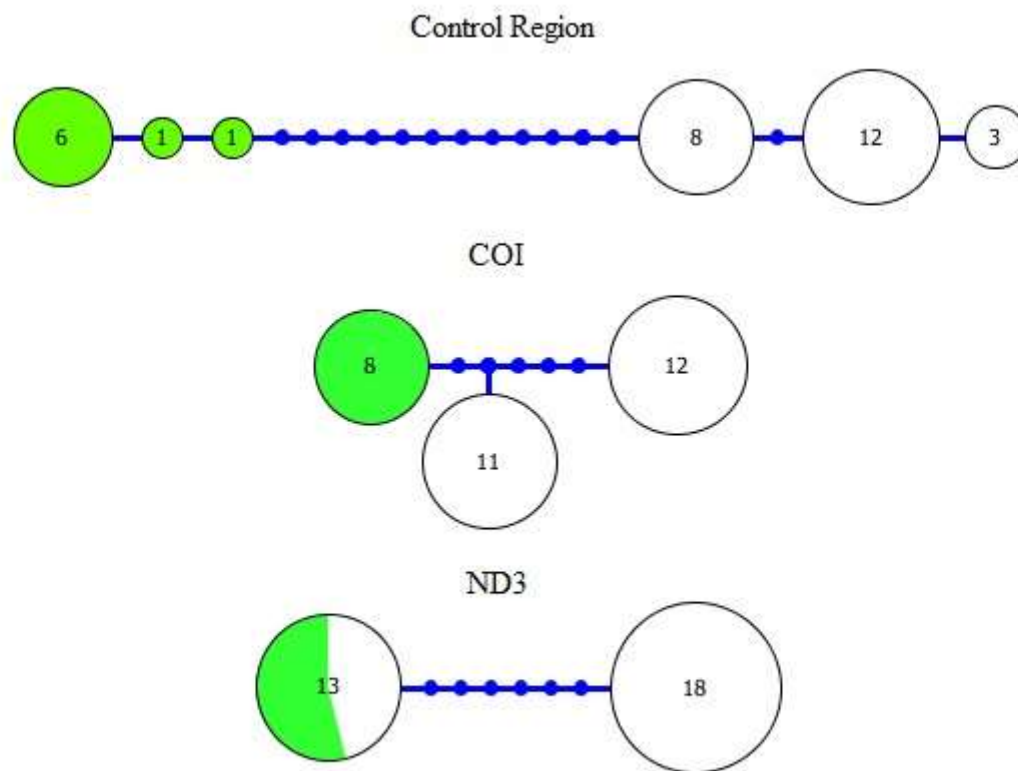


Figure A2 Haplotype networks of the three mitochondrial markers for the *Antilophia bokermanni* species, showing the correlation between the most divergent haplotypes (in green) in the region control with the most divergent haplotypes in the markers COI and ND3.