

Supplementary Material to “Understory bird taxonomic and functional diversity during secondary forest succession in the tropical Andes”

Table S2 - Abundance and functional traits of birds assessed across three forest types: young secondary forest (YSF), mid-successional secondary forest (MSF) and mature forest (MF). Morphological traits measured included wing length (RW), tail length (T), tarsus length (Ta) and total culmen length (TC) measurements were taken in millimeters (mm), and body weight (Wg) in grams (g). Life history traits encompassed diet (frugivorous [Fr], granivorous [Gr], insectivorous [In] and nectarivorous [Ne]) and nest type (cup [Cu], enclosed [En], hole [Ho], and platform [Pl]). Behavioral traits included foraging strata (ground [Grn], understory [Un], subcanopy [Sca], and canopy [Ca]) and foraging strategies (bark [Ba], flower-visiting [Fv], flycatching [Fy], searcher [R], and gleaner [Gl]).

Scientific name	Abundance			Morphological Traits					Life history and behavioral traits			
	YSF	MSF	MF	RW	T	Ta	TC	Wg	Diet	Nest type	Foraging strata	Foraging strategies
<i>Geotrygon montana</i>	0	6	7	133.9	74.3	27.4	17.1	114.2	Fr – Gr – In	Pl	Grn	R
<i>Leptotila verreauxi</i>	3	3	0	139.8	110	28.3	17.3	139.8	Fr – Gr – In	Pl	Grn	R
<i>Columbina talpacoti</i>	0	2	0	87	70	17.7	12	42.2	Gr – In	Pl	Grn	R
<i>Florisuga mellivora</i>	0	0	4	69.5	35.5	4	21.8	7.5	In – Ne	Cu	Un	Fv
<i>Eutoxeres aquila</i>	6	0	0	80	56.5	5	25.4	11	In – Ne	Cu	Un	Fv
<i>Glaucis hirsutus</i>	38	43	46	59.5	38.3	4.5	32	7.5	In – Ne	Cu	Un	Fv
<i>Threnetes ruckeri</i>	8	16	5	59.3	37.3	3.9	29.2	7	In – Ne	Cu	Un	Fv – Fy
<i>Phaethornis striigularis</i>	21	18	33	39.3	39.9	3	23.5	2.5	In – Ne	Cu	Un	Fv – Fy
<i>Phaethornis anthophilus</i>	36	47	29	57.3	59.1	3.6	33.4	4.8	In – Ne	Cu	Un	Fv – Fy
<i>Phaethornis guy</i>	7	1	13	60.1	62.1	3.4	37.9	5	In – Ne	Cu	Un	Fv – Fy
<i>Phaethornis longirostris</i>	2	3	4	61.25	65.38	4.3	38.08	6	In – Ne	Cu	Un	Fv – Fy
<i>Chalybura buffonii</i>	19	28	23	66.9	41.6	4.4	25.7	6.1	In – Ne	Cu	Un	Fv

Scientific name	Abundance			Morphological Traits					Life history and behavioral traits			
	YSF	MSF	MF	RW	T	Ta	TC	Wg	Diet	Nest type	Foraging strata	Foraging strategies
<i>Amazilia tzacatl</i>	18	19	6	54.6	32.3	3.6	19.8	5.7	In – Ne	Cu	Sca – Un	Fv – Fy
<i>Polyerata amabilis</i>	19	9	10	52.5	29.8	3.9	19.6	4.3	In – Ne	Cu	Un	Fv – Fy
<i>Hylomanes momotula</i>	3	4	2	71.9	62.4	19.1	26.5	31.9	In	Ho	Un	Fy
<i>Malacoptila panamensis</i>	0	2	0	86	76	23	16.9	28.1	Fr – In	Cu	Un	Fy – R
<i>Capito hypoleucus</i>	1	0	0	86	54	24.8	23.1	63	Fr – In	Ho	Ca	R
<i>Pteroglossus torquatus</i>	0	0	1	147	153	41.4	106.2	235.5	Fr – In	Ho	Ca	R
<i>Picumnus olivaceus</i>	5	2	1	54.5	29	13.4	10.6	11.7	In	Ho	Un	Ba
<i>Dryobates kirkii</i>	1	2	2	85	53	15.8	19.2	29.3	In	Ho	Ca – Sca	Ba
<i>Forpus conspicillatus</i>	0	1	0	78	40	11.7	13.4	26.4	Fr – Gr	Ho	Un	R
<i>Thamnophilus atrinucha</i>	0	4	6	64.8	57	20.8	16.4	22.5	In	Cu	Un – Grn	R
<i>Epinecrophylla fulviventris</i>	1	8	4	51	38.7	16.2	13	10.4	In	En	Un – Grn	R
<i>Hafferia immaculata</i>	0	0	1	80	85	32.4	20.5	38.6	In	En	Grn	R – Gl
<i>Gymnopathys bicolor</i>	0	0	10	79.33	54.5	26.67	17.07	30.47	In	Cu	Grn	R
<i>Formicarius analis</i>	1	4	3	93.3	57	34.4	13.3	59.7	Fr – In	En	Grn	R
<i>Dendrocincla fuliginosa</i>	23	25	14	104.5	88.6	23.5	25.2	38.9	In	Ho	Ca – Sca	Ba
<i>Glyphorhynchus spirurus</i>	7	21	13	69.5	65.1	15.2	10.7	13.7	In	Ho	Un	Ba
<i>Xiphorhynchus susurrans</i>	1	3	0	95	80	17.4	25.1	26.8	In	Ho	Ca	Ba
<i>Dendroplex picus</i>	2	0	0	102	89	21	26	40	In	Ho	Un	Ba
<i>Campylorhamphus trochilirostris</i>	4	6	2	90.7	85.4	20.4	55.8	36.9	In	Ho	Sca – Un	Ba
<i>Lepidocolaptes souleyetii</i>	1	3	0	85	77.3	17.8	26.1	25.5	Fr – In	Ho	Un	Ba
<i>Xenops minutus</i>	17	10	11	63.5	51	14.5	11.6	12	In	Ho	Un	Ba
<i>Automolus ochrolaemus</i>	2	0	4	77.1	65.7	23	16.3	30.1	In	Ho	Un	Ba
<i>Synallaxis albescens</i>	0	2	0	54	80	19.9	11.05	15.9	In	En	Un – Grn	R
<i>Cryptopipo holochlora</i>	0	0	16	72.3	46.7	14.5	9.4	16.3	Fr – In	Cu	Sca – Un	Fy – R
<i>Lepidothrix coronata</i>	8	7	22	58.8	27.3	14.2	7.8	9.6	Fr – In	Cu	Un	R

Scientific name	Abundance			Morphological Traits					Life history and behavioral traits			
	YSF	MSF	MF	RW	T	Ta	TC	Wg	Diet	Nest type	Foraging strata	Foraging strategies
<i>Manacus manacus</i>	37	91	30	52.8	31.1	19.3	9.8	16.4	Fr – In	Cu	Un	R
<i>Machaeropterus striolatus</i>	49	45	92	50.5	20.6	13.9	8.3	10.1	Fr – In	Cu	Un	R
<i>Ceratopipra erythrocephala</i>	0	1	18	57.2	18.5	13.3	7.9	12.4	Fr – In	Cu	Un	R
<i>Pachyrhamphus cinnamomeus</i>	4	2	1	77.3	57.3	19	11.7	20.7	Fr – In	En	Ca – Sca	Fy – R
<i>Terenotriccus erythrurus</i>	0	0	1	50	41.5	16.1	7.2	7	In	En	Sca – Un	Fy
<i>Myiobius atricaudus</i>	0	0	2	67	58	15.3	13.5	13	In	En	Un	Fy – R
<i>Mionectes olivaceus</i>	1	0	4	62.7	47.7	15.4	10.5	12.3	Fr – In	En	Un	Fy – R
<i>Mionectes oleagineus</i>	95	82	75	58.5	45.5	14.8	9.5	9.9	Fr – In	En	Sca – Un	Fy – R
<i>Leptopogon amaurocephalus</i>	8	16	3	63.5	54.1	14.5	11.8	11.9	Fr – In	En	Un	Fy – R
<i>Leptopogon supercilialis</i>	9	8	11	65.6	59	14.5	12	12.7	Fr – In	En	Ca – Sca	Fy – R
<i>Rhynchocyclus olivaceus</i>	1	1	3	73.3	64.3	17.6	12.5	21.6	In	En	Un	Fy
<i>Tolmomyias assimilis</i>	0	1	0	65	57	17.9	11.8	16.2	Fr – In	En	Sca	Fy – R
<i>Oncostoma olivaceum</i>	13	11	11	47	35.4	14.6	10.8	6.9	Fr – In	En	Un	Fy
<i>Poecilatriccus sylvia</i>	0	2	0	51	35.5	18.5	10.8	10.8	Fr – In	En	Un	R
<i>Todirostrum cinereum</i>	2	6	3	43.3	35.3	18	13.6	8.5	Fr – In	En	Ca – Sca – Un	Fy – R
<i>Camptostoma obsoletum</i>	0	0	1	48	42	12.1	9.8	7.5	Fr – In	En	Ca	Fy – R
<i>Elaenia flavogaster</i>	4	8	2	81.5	70	18.3	11.4	22.2	Fr – In	Cu	Sca	Fy – Gl
<i>Tyrannulus elatus</i>	0	1	0	51	42	13.3	7.5	9.1	Fr – In	Cu	Ca	Fy – R
<i>Attila spadiceus</i>	0	1	0	82	69	22	19.6	35.4	Fr – Gr – In	Cu	Ca – Sca – Un	Fy – Gl
<i>Legatus leucophaeus</i>	2	0	0	80	59	15.2	11.3	22.8	Fr – In	En	Ca – Sca	R
<i>Pitangus sulphuratus</i>	0	1	0	106	81	24.6	21.8	49.8	Fr – In	En	Ca – Sca	Fy – R
<i>Myiodynastes maculatus</i>	3	1	1	100.7	84	19	22.5	41.3	Fr – In	Cu	Ca – Sca	Fy – R
<i>Myiozetetes cayanensis</i>	1	3	2	82	74	18	12.2	27.2	Fr – In	En	Sca – Un	Fy – R
<i>Tyrannus melancholicus</i>	0	3	0	106	88	18.3	19.2	39.7	Fr – In	Cu	Ca – Sca – Un	Fy – R
<i>Sayornis nigricans</i>	0	1	0	81	78	16.9	11.8	17.8	In	Cu	Un	Fy – R

Scientific name	Abundance			Morphological Traits					Life history and behavioral traits			
	YSF	MSF	MF	RW	T	Ta	TC	Wg	Diet	Nest type	Foraging strata	Foraging strategies
<i>Empidonax virescens</i>	3	5	3	72.8	60.5	15.2	11	12.6	Fr – In	Cu	Un	Fy
<i>Contopus virens</i>	0	1	0	84	63	12.9	11.1	13.8	Fr – In	En	Ca – Sca	Fy
<i>Vireo flavoviridis</i>	0	1	0	77	58	18.17	13.3	14.9	Fr – In	En	Sca	R – Gl
<i>Stelgidopteryx ruficollis</i>	1	0	1	111	55	11	6.7	15.3	In	Ho	Ca – Sca	Fy
<i>Microcerculus marginatus</i>	2	13	10	56.2	23.9	23	18.6	18	In	En	Grn	R
<i>Troglodytes musculus</i>	3	0	0	55	42	16.8	19.5	16.1	In	Ho	Un – Grn	R
<i>Pheugopedius spadix</i>	0	0	2	61.5	55.5	16.4	17.4	21.1	In	En	Grn	R
<i>Pheugopedius fasciatoventris</i>	5	12	2	67.8	54.5	24.5	18.6	31.5	In	En	Grn	R
<i>Cantorchilus nigricapillus</i>	1	0	3	66	51.3	24.6	17.8	24.8	In	En	Un – Grn	R
<i>Henicorhina leucosticta</i>	0	3	4	54.5	28	22.2	15.5	17.8	In	En	Grn	R
<i>Microbates cinereiventris</i>	0	0	6	53.8	31.6	22.6	17.1	12.1	In	Cu	Un	R
<i>Catharus minimus</i>	5	9	9	101.5	71.6	30.1	12.9	33.2	Fr – In	Cu	Un – Grn	R
<i>Catharus ustulatus</i>	16	25	19	97.7	67.7	27.2	11.9	31	Fr – In	Cu	Un – Grn	R
<i>Turdus leucomelas</i>	8	10	11	116.5	98.4	30	19.2	66.7	Fr – Gr – In	Cu	Sca – Un	R
<i>Turdus ignobilis</i>	1	5	9	118	90.8	30.7	20.9	68.5	Fr – Gr – In	Cu	Sca – Un	R
<i>Euphonia concinna</i>	0	0	1	60	32	13.2	7.6	12.6	Fr – In	Cu	Ca	R
<i>Euphonia minuta</i>	0	1	0	51	28	11.9	7	9.8	Fr – In	En	Ca	R
<i>Euphonia lanirostris</i>	10	9	9	59.6	35.8	14.9	9.1	14.7	Fr – In	En	Ca	R
<i>Euphonia xanthogaster</i>	4	1	7	60.8	35.8	14.9	7.6	12.7	Fr – In	En	Ca	Fy – R
<i>Arremon aurantiostris</i>	13	19	12	72.2	62.4	24	13.1	24.7	Gr – In	En	Grn	R
<i>Parkesia noveboracensis</i>	6	10	6	75.7	51	20.9	11.8	16.9	In	Cu	Grn	Fy – R – Gl
<i>Mniotilta varia</i>	1	0	0	71	47	14.4	11	9.7	Fr – In	Cu	Ca – Sca – Un	R – Gl
<i>Oporornis agilis</i>	2	1	0	59.7	49	16.7	10.2	10.7	Fr – In	Cu	Un – Grn	R – Gl
<i>Geothlypis philadelphia</i>	7	7	0	60.6	49.6	20.1	10	10.7	In	Cu	Grn	R
<i>Setophaga castanea</i>	1	1	1	72	52.5	18	11.1	11.9	Fr – In	Cu	Sca	Fy – Gl

Scientific name	Abundance			Morphological Traits					Life history and behavioral traits			
	YSF	MSF	MF	RW	T	Ta	TC	Wg	Diet	Nest type	Foraging strata	Foraging strategies
<i>Setophaga fusca</i>	0	1	0	66	46	15	11.3	9.1	Fr – In	Cu	Ca – Sca	Fy – Gl
<i>Myiothlypis fulvicauda</i>	11	17	3	64.3	50.2	21.7	11.6	14.7	In	En	Grn	R – Gl
<i>Basileuterus delatarii</i>	18	17	11	56.5	51.2	19.5	10.5	11.1	Fr – In	En	Un – Grn	R
<i>Mitrospingus cassinii</i>	4	4	6	83.6	74	23.7	17.9	40	Fr – In	Cu	Un	R – Gl
<i>Piranga rubra</i>	0	2	0	92	69	16.5	17.1	27.7	Fr – In	Cu	Ca – Sca	R
<i>Driophlox gutturalis</i>	6	6	6	93	87.7	24	17	38.7	In	Cu	Un – Grn	R
<i>Cyanoloxia cyanoides</i>	2	5	2	78.6	66	20.4	18.1	27.2	Gr – In	Cu	Grn	R
<i>Chlorophanes spiza</i>	3	0	5	67.5	44.5	17.8	12.4	15.8	Fr – In – Ne	Cu	Sca – Un	Fv – R
<i>Hemithraupis flavicollis</i>	0	1	0	60	45	14.9	11.6	13.2	Fr – In	Cu	Ca	R
<i>Sicalis flaveola</i>	0	4	3	71	52.5	20.1	10.4	20.8	Gr – In	Cu	Grn	Fy – R
<i>Volatinia jacarina</i>	7	28	2	48.4	43.1	14.3	9.4	9.3	Gr – In	Cu	Grn	R
<i>Loriotus luctuosus</i>	3	5	2	66	56.9	16.6	11.9	15.2	Fr – In	Cu	Sca – Un	R
<i>Tachyphonus delatarii</i>	0	3	17	70	61.4	18.9	11.6	19.7	Fr – In	Cu	Sca – Un	R
<i>Eucometis penicillata</i>	12	28	8	89.5	78.7	21.9	15.7	32.3	Fr – In	Cu	Un – Grn	R
<i>Ramphocelus dimidiatus</i>	13	18	20	76.3	69.2	20	13.8	26.7	Fr – In	Cu	Un	R
<i>Ramphocelus flammigerus</i>	2	0	2	84.3	74.3	22.9	16.2	34.6	Fr – In	Cu	Un	R
<i>Cyanerpes caeruleus</i>	0	3	7	53.8	27.5	13.7	16.6	10.4	Fr – In – Ne	Cu	Ca	Fv – R
<i>Tersina viridis</i>	0	4	1	77	46	14.7	7.9	25.1	Fr – In	Ho	Ca – Sca – Un	Fy – R
<i>Dacnis lineata</i>	4	1	7	59.8	40.4	13.6	11.4	11.6	Fr – In – Ne	Cu	Ca	Fv – R
<i>Dacnis cayana</i>	4	1	2	63.7	45.3	14.5	11.4	13.2	Fr – In – Ne	En	Ca	Fv – R
<i>Sporophila minuta</i>	0	7	1	48.33	39	14.2	8.5	8.17	Gr	Cu	Grn	R
<i>Sporophila funerea</i>	13	26	18	56.5	49.9	16.1	10.8	12.8	Gr	Cu	Un – Grn	R
<i>Sporophila crassirostris</i>	0	2	0	65	55	17.2	13.3	20.2	Gr	Cu	Grn	R
<i>Sporophila intermedia</i>	1	2	1	58	43.5	15.7	11.9	13.1	Gr	Cu	Un – Grn	R
<i>Sporophila nigricollis</i>	2	5	4	52	44	14.3	10.1	9.8	Gr	Cu	Grn	R

Scientific name	Abundance			Morphological Traits					Life history and behavioral traits			
	YSF	MSF	MF	RW	T	Ta	TC	Wg	Diet	Nest type	Foraging strata	Foraging strategies
<i>Saltator maximus</i>	9	10	4	96	88.4	24.5	18	45	Fr – In	Cu	Ca – Sca	R
<i>Saltator striatipectus</i>	0	0	1	91	86.7	23.3	17.8	45.7	Fr – In	Cu	Un	R
<i>Coereba flaveola</i>	12	13	10	54.6	32.6	15.4	12.4	9.3	Fr – In – Ne	En	Ca – Sca – Un	Fv
<i>Tiaris olivaceus</i>	2	0	0	50	42	17	9	9.1	Gr – In	En	Grn	R
<i>Asemospiza obscura</i>	0	2	0	52.5	42.5	17.4	9.45	11	Gr	En	Grn	R
<i>Asemospiza fuliginosa</i>	0	1	0	82	45	16.2	10.2	17.2	Gr	En	Grn	R
<i>Stilpnia vitriolina</i>	0	2	0	75	56	19.3	12	11.4	Fr – In	Cu	Ca – Sca – Un	R
<i>Stilpnia larvata</i>	2	3	7	64.4	46.6	15.8	9.7	16.9	Fr – In	Cu	Un	R
<i>Stilpnia cyanicollis</i>	3	0	3	70.8	49.3	16.4	9.5	16.3	Fr – In	Cu	Sca – Un	R
<i>Tangara inornata</i>	4	4	3	71.6	53.5	17.4	10.5	17.9	Fr – In	Cu	Ca	R
<i>Tangara gyrola</i>	0	1	4	78	52	18.3	9.5	19.9	Fr – In	Cu	Sca – Un	R
<i>Tangara icterocephala</i>	1	0	1	73	48	16.7	10	18.3	Fr – In	Cu	Un	R
<i>Thraupis episcopus</i>	11	2	3	87.9	67.5	18.4	12.9	32.4	Fr – In	Cu	Ca – Sca	R
<i>Thraupis palmarum</i>	1	5	6	90.7	67.6	21.6	14.8	36.1	Fr – In	Cu	Ca – Sca	R