

BODY MASSES OF BIRDS FROM ATLANTIC FOREST REGION, SOUTHEASTERN BRAZIL

Iubatã Paula de Faria¹ & William Sousa de Paula

PPG-Ecologia, Universidade de Brasília, Brasília, DF, Brazil.
E-mail: iuba1@yahoo.com.br

Massa corpórea de aves da região de Floresta Atlântica, sudeste do Brasil.

Key words: Neotropical birds, weight, body mass, tropical rainforest, Brazil.

The Brazilian Atlantic forest is one of the biodiversity hotspots in the world (Myers 1988, Myers *et al.* 2000) with high endemism of bird species (Cracraft 1985, Myers *et al.* 2000). Nevertheless, there is little information on the avian body masses (weight) for this region (Oniki 1981, Dunning 1992, Belton 1994, Reinert *et al.* 1996, Sick 1997, Oniki & Willis 2001, Bugoni *et al.* 2002) and for other Neotropical ecosystems (Fry 1970, Oniki 1980, 1990; Dick *et al.* 1984, Salvador 1988, 1990; Peris 1990, Dunning 1992, Cavalcanti & Marini 1993, Marini *et al.* 1997, Vereá *et al.* 1999, Oniki & Willis 1999). Data on body mass are valuable in testing several ecological and evolutionary hypotheses (Wilson 1975, Karr *et al.* 1978, Clark 1979). In spite of the importance of this biological data, information published in the literature on body mass of Neotropical birds are scarce, and some articles should be considered as “unanalyzable raw data” (see Vuilleumier 1999).

¹Current address: QI 02, Bloco H, 308, Guarã I, DF, 71010-080, Brazil.

In this paper, we present the values of body masses of birds captured or collected using mist-nets in 17 localities in the Atlantic forest of southeastern Brazil (Table 1), between 2004 and 2007. Data for sites 1, 2, 3, and 5 were collected in January, April, August, and December 2004; in March and April 2006 for sites 4, 6, 7, and 8. Others sites were collected in September 2007. The Atlantic forest region is composed by two major vegetation types: Atlantic rain forest (low to medium elevations, = 1000 m); and Atlantic semi-deciduous forest (usually > 600 m) (Morellato & Haddad 2000, but see more details about description in Oliveira-Filho & Fontes 2000).

Avian body masses were taken with a Pesola scale with precision of 1.0 g. Sex and age abbreviations follow Marini *et al.* (1997): J, juvenile; S, subadult; M, male; F, female; U, unknown. For samples with same value, the numbers in parentheses are the sample sizes. Scientific nomenclature and English names followed “Comitê Brasileiro de Registros Ornitológicos” (CBRO 2007). Specimens collected are housed in the “Coleção Orni-

TABLE 1. Localities of the Atlantic forest of southeastern Brazil sampled for avian body masses. States: Minas Gerais (MG), Espírito Santo (ES), Rio de Janeiro (RJ), and São Paulo (SP).

Sites	Municipalities	States	Coordinates	Altitudes (m)
1	Ouro Preto (OP)	MG	20°51' S, 43°45' W	820
2	Mariana (MA)	MG	20°47' S, 43°43' W	800
3	Manhuaçu (MN)	MG	20°34' S, 42°12' W	1070
4	Alto Caparaó (AC1)	MG	20°25' S, 41°48' W	2371
5	Alto Caparaó (AC2)	MG	20°28' S, 41°49' W	1810
6	Domingos Martins (DM)	ES	20°24' S, 40°72' W	760
7	Lúna (LU)	ES	20°24' S, 41°50' W	1916
8	Ibitirama (IB)	ES	20°29' S, 41°44' W	951
9	Divino de São Lourenço (SL)	ES	20°35' S, 41°46' W	1039
10	Rio Claro (RC)	RJ	22°39' S, 44°05' W	450
11	Seropédica (SE)	RJ	22°42' S, 43°44' W	30
12	Volta Redonda (VR)	RJ	22°35' S, 44°04' W	390
13	Mogi das Cruzes (MC)	SP	23°30' S, 46°13' W	595
14	Santa Branca (SB)	SP	23°21' S, 45°54' W	800
15	Taubaté (TA)	SP	23°06' S, 45°31' W	560
16	Areias (AR)	SP	22°36' S, 44°41' W	519
17	Bananal (BA)	SP	22°37' S, 44°13' W	450

tológica Marcelo Bagno” (COMB), at University of Brasília, Brasília, Brazil.

Appendix 1 shows body masses from 341 individuals of birds belonging to 74 species, with 29 endemic species of the Atlantic forest (Stotz *et al.* 1996), and two near-threatened species, Eye-ringed Tody-Tyrant (*Hemitriccus orbitatus*), and Cinnamon-vented Piha (*Lipaugus lanioides*), following IUCN (2007). The list of birds presented includes some young birds (approximately 4.7% are juvenile or subadult birds).

The body mass of some species listed in Appendix 1 are known from previous studies, especially those with wide geographic distribution, such as Variable Antshrike (*Thamnophilus caerulescens*), Rufous Gnateater (*Conopophaga lineata*), thrushes (*Turdus* spp.), Black-

goggled Tanager (*Trichothraupis melanops*), and other species (see mainly references in Vuilleumier 1999). Body masses for Itatiaia Spinetail (*Oreophylax moreirae*), Pin-tailed Manakin (*Ilicura militaris*), Diademed Tanager (*Stephanophorus diadematus*), and Half-collared Sparrow (*Arremon semitorquatus*) are new or poorly known for the literature (Dunning 1992, Oniki & Willis 2001).

According to Oniki & Willis (2001), although many avian body masses are cited for species occurring in Brazil (Dunning 1992), they were obtained from the literature from other Neotropical regions. Thus, in the future, it will be interesting to compare these body masses with those available for various regions of Brazil, for determine the effect of altitude, for example.

ACKNOWLEDGMENTS

We thank Cristiane Barreto, Fernando Machado, and Tarcísio Abreu for their competent assistance. We thank Carlos Bianchi for assistance with the English revision and important suggestion that improved substantially the final version of this manuscript. We thank Marcelo F. de Vasconcelos, Fernando Straube, Raymond McNeil, and an anonymous reviewer for valuable suggestions to the manuscript. Assistance in the field was provided by Mieko Kanegae, Adriana Bocchiglieri, Juliana Bragança Campos, Telma Carvalho, Frederico França, Pablo Amaral, Janderson Brito, Renato Faria, Carlos Cândido, Sandro Barata, and Joaquim Silva. The fieldwork in OP, MA, MN, and DM was supported by Furnas Centrais Elétricas. The Center for the Conservation of the Birds of Brazil (CEMAVE) and IBAMA provided banding and collecting permits.

REFERENCES

- Belton, W. 1994. Aves do Rio Grande do Sul: distribuição e biologia. Ed. UNISINOS, São Leopoldo, Rio Grande do Sul, Brazil.
- Bugoni, L., L. V. Mohr, A. Scherer, M. A. Efe, & S. B. Scherer. 2002. Biometry, molt and brood patch parameters of birds in southern Brazil. *Ararajuba* 10: 85–94.
- Cavalcanti, R. B., & M. Â. Marini. 1993. Body masses of birds of the cerrado region, Brazil. *Bull. Br. Ornithol. Club* 113: 209–212.
- CBRO. 2007. Listas das aves do Brasil. 6ª ed. Downloaded from <http://www.cbro.org.br>, on 18 February 2008.
- Clark, G. A., Jr. 1979. Body weights of birds: a review. *Condor* 81: 193–202.
- Cracraft, J. 1985. Historical biogeography and patterns of differentiation within the South American avifauna: Areas of endemism. *Ornithol. Monogr.* 36: 49–84.
- Dick, J. A., B. McGillivray, & D. J. Brooks. 1984. A list of birds and their weights from Saül, French Guiana. *Wilson Bull.* 96: 347–365.
- Dunning, J. B., Jr. 1992. CRC handbook of avian body masses. CRC Press, Boca Raton, Florida.
- Fry, C. H. 1970. Ecological distribution of birds in northeastern Mato Grosso state, Brazil. *An. Acad. Bras. Cienc.* 42: 275–318.
- IUCN. 2007. 2007 IUCN red list of threatened species. Downloaded from www.iucnredlist.org, on 14 February 2008.
- Karr, J. R., M. F. Willson, & D. J. Moriarty. 1978. Weights of some Central American birds. *Brenesia* 14–15: 249–257.
- Marini, M. A., J. C. Motta-Júnior, L. A. S. Vasconcelos, & R. B. Cavalcanti. 1997. Avian body masses from the cerrado region of Central Brazil. *Ornitol. Neotrop.* 8: 93–99.
- Morellato, L. P. C., & C. F. B. Haddad. 2000. Introduction: the Brazilian Atlantic forest. *Biotropica* 32: 786–792.
- Myers, N. 1988. Threatened biotas: “Hotspot” in tropical forests. *Environmentalist* 8: 1–20.
- Myers, N., R. A. Mittermeier, C. G. Mittermeier, G. A. B. Fonseca, & J. Kent. 2000. Biodiversity hotspots for conservation priorities. *Nature* 403: 853–858.
- Oliveira-Filho, A. T., & M. A. L. Fontes. 2000. Patterns of floristic differentiation among Atlantic forests in southeastern Brazil and the influence of climate. *Biotropica* 32: 793–810.
- Oniki, Y. 1980. Weights and cloacal temperatures of some birds of Minas Gerais, Brazil. *Rev. Bras. Biol.* 40: 1–4.
- Oniki, Y. 1981. Weights, cloacal temperatures, plumage and molt condition of birds in the state of São Paulo. *Rev. Bras. Biol.* 41: 451–460.
- Oniki, Y. 1990. Overnight changes in body weight and cloacal temperature of birds from Mato Grosso state, Brazil. *Rev. Bras. Biol.* 50: 681–684.
- Oniki, Y., & E. O. Willis. 1999. Body mass, cloacal temperature, morphometrics, breeding and molt of birds of Serra das Araras region, Mato Grosso, Brazil. *Ararajuba* 7: 17–21.
- Oniki, Y., & E. O. Willis. 2001. Birds of a central São Paulo woodlot: 4. Morphometrics, cloacal temperatures, molt and incubation patch. Pp. 93–101 in Albuquerque, J. L. B., J. F. Cândido Jr., F. C. Straube, & A. L. Roos (eds.). *Ornitologia e conservação: da ciência às estratégias*. Ed. Unisul, Tubarão, Santa Catarina, Brazil.

- Peris, S. J. 1990. Peso y biometría de algunas aves del chaco húmido (Presidente Hayes, Paraguay). *Ornitol. Neotrop.* 1: 31–32.
- Reinert, B. L., J. C. Pinto, M. R. Bornschein, M. Pichorin, & M. Â. Marini. 1996. Body masses and measurements of birds from southern Atlantic forest, Brazil. *Rev. Bras. Zool.* 13: 815–820.
- Salvador, S. A. 1988. Datos de peso de aves argentinas. *Hornero* 13: 78–83.
- Salvador, S. A. 1990. Datos de peso de aves argentinas 2. *Hornero* 13: 169–171.
- Sick, H. 1997. *Ornitologia brasileira*. Ed. Nova Fronteira, Rio de Janeiro, Brazil.
- Stotz, D. F., J. W. Fitzpatrick, T. Parker III, & D. K. Moskovits. 1996. *Neotropical birds: ecology and conservation*. Univ. of Chicago Press, Chicago, Illinois.
- Verea, C., A. Solorzano, & A. F. Badillo. 1999. Pesos y distribución de aves del sotobosque del parque nacional Henri Pittier al norte de Venezuela. *Ornitol. Neotrop.* 10: 217–231.
- Vuilleumier, F. 1999. The weights of Neotropical birds. *Ornitol. Neotrop.* 10: 207–209.
- Wilson, D. S. 1975. The adequacy of body size as a niche difference. *Am. Nat.* 109: 769–784.

Accepted 1 August 2008.

APPENDIX 1. Body mass (g) of some Atlantic forest birds in southeastern Brazil. Sex and age: male (M), female (F), unknown (U), juvenile (J), and subadult (S). Locality and abbreviations: Ouro Preto (OP), Mariana (MA), Manhuaçu (MN), and Alto Caparaó (AC1 and AC2), state of Minas Gerais; Domingos Martins (DM), Lúna (LU), Ibitirama (IB), and Divino de São Lourenço (SL), state of Espírito Santo; Rio Claro (RC), Seropédica (SE), and Volta Redonda (VR), state of Rio de Janeiro; Mogi das Cruzes (MC), Santa Branca (SB), Taubaté (TA), Arcias (AR), and Bananal (BA), state of São Paulo. Asterisk (*) indicates Atlantic forest endemic species according to Stotz *et al.* (1996).

Common name (Scientific name)	Sex	Body masse (sample size) [Locality]
Ruddy Ground-Dove (<i>Columbina talpacoti</i>)	U	44.0 [SE]
White-tipped Dove (<i>Leptotila verreauxi</i>)	M	165.0 [SB]
Rufous Nightjar (<i>Caprimulgus rufus</i>)	M	61.0 [MA]
Planalto Hermit (<i>Phaethornis pretrei</i>)	U	3.0, 5.0 [MN]; 5.0 [DM]; 5.0 [AR]
Scale-throated Hermit (<i>Phaethornis eurynome</i>)*	U	6.0 [MN]; 5.0 [MC]
Plovercrest (<i>Stephanoxis lalandi</i>)*	U	3.0 [AC2]
Violet-capped Woodnymph (<i>Thalurania glaucopis</i>)*	M	5.0 [DM]; 5.0 [TA]; 5.0 [RC]
White-throated Hummingbird (<i>Leucochloris albicollis</i>)*	U	5.0 [LU]
Glittering-throated Emerald (<i>Amazilia fimbriata</i>)	U	4.0 [MN]
Crescent-chested Puffbird (<i>Malacoptila striata</i>)*	U	39.0, 43.0 [MA]
White-barred Piculet (<i>Picumnus cirratus</i>)	U[J]	11.0, 12.0 [OP]
Little Woodpecker (<i>Veniliornis passerinus</i>)	U	39.0 [OP]
White-spotted Woodpecker (<i>Veniliornis spilogaster</i>)*	M	28.0 [OP]
Large-tailed Antshrike (<i>Mackenziaena leachii</i>)*	F	56.0, 60.0 [AC2]
Variable Antshrike (<i>Thamnophilus caerulescens</i>)	M	20.0 (3), 22.0 [OP]; 20.0, 21.0 [MN]; 12.0 [AR]

APPENDIX 1. Continuación.

Common name (Scientific name)	Sex	Body masse (sample size) [Locality]
	F	20.0 [OP]; 21.0 [MN]
	U	20.0, 25.0 [OP]
Plain Antvireo (<i>Dysithamnus mentalis</i>)	M	20.0, 12.0 [OP]; 12.0 [DM]; 12.0 [TA]; 13.0 [IB]
	F	13.0 [OP]
	U	11.0 (2) [OP]
Ferruginous Antbird (<i>Drymophila ferruginea</i>)*	F	12.0 [DM]
White-shouldered Fire-eye (<i>Pyriglena leucoptera</i>)*	M	25.0 [MA]; 27.0, 28.0 (2), 29.0 (2), 31.0 [OP]
	M	28.0, 29.0 (2) [DM]
	F	22.0 (2), 26.0 [OP]; 30.0 [IB]
Rufous Gnateater (<i>Conopophaga lineata</i>)*	M	22.0 [AR]; 24.0 [LU]; 19.0, 21.0, 24.0 [IB]
	F	20.0 [LU]
	U	21.0 [MA]; 24.0 [OP]; 19.0, 20.0, 22.0, 23.0 [MN]
	U	22.0 [DM]; 21.0 (2), 22.0, 23.0 [TA]
	U	18.0; 21.0 (3), 22.0, 23.0 [BA]; 19.0, 20.0 [AC2]
	U[J]	19.0 [OP]; 20.0 [MN]; 18.0 [DM]
Rufous-breasted Leaf-tosser (<i>Sclerurus scansor</i>)*	U	40.0, 38.0 [MA]
Thrush-like Woodcreeper (<i>Dendrocincla turdina</i>)*	F	23.0 [BA]
	U	28.0 [DM]
Olivaceous Woodcreeper (<i>Sittasomus griseicapillus</i>)	U	12.0 [OP]; 13.0 (2), 15.0 [MA]; 13.0 [MN]; 14.0 (2) [IB]
Lesser Woodcreeper (<i>Xiphorhynchus fuscus</i>)*	U	19.0, 27.0 [MN]; 21.0 [SB]; 18.0 [TA]; 18.0, 19.0 [IB]
Scaled Woodcreeper (<i>Lepidocolaptes squamatus</i>)*	U	24.0 [DM]; 22.0 [IB]
Black-billed Scythebill (<i>Campylorhynchus falcularius</i>)*	U	40.0 [MN]
Itatiaia Spinetail (<i>Oreophylax moreirae</i>)*	U	15.0 [AC1]
Rufous-capped Spinetail (<i>Synallaxis ruficapilla</i>)*	F	15.0 [SB]
	U	28.0 [MN]; 13.0, 14.0 [TA]
	U[J]	16.0 [MN]
Spix's Spinetail (<i>Synallaxis spixi</i>)	U	15.0 [SL]
Buff-fronted Foliage-gleaner (<i>Philydor rufum</i>)	U	26.0 [MN]
White-collared Foliage-gleaner (<i>Anabazenops fuscus</i>)*	U	37.0, 38.0, 39.0, 40.0 [MN]; 38.0 [IB]
White-eyed Foliage-gleaner (<i>Automolus leucophthalmus</i>)*	U	42.0 [MA]
Sharp-tailed Streamcreeper (<i>Lochmias nematura</i>)	U	22.0 [SE]
Streaked Xenops (<i>Xenops rutilans</i>)	U	12.0 [DM]

APPENDIX 1. Continuación.

Common name (Scientific name)	Sex	Body masse (sample size) [Locality]
Grey-hooded Flycatcher (<i>Mionectes rufiventris</i>)*	U	16.0 [MA];14.0 [MN]; 14.0 (2), 15.0, 16.0 [DM]
	U	12.0 [SB]; 12.0 (2) [BA]; 13.0 [AC2]
Sepia-capped Flycatcher (<i>Leptopogon amaurocephalus</i>)	U	11.0, 12.0 (2), 16.0 [OP]; 12.0 [MN]
Southern Antpipit (<i>Corytbopsis delalandi</i>)	U	15.0 [MA]
Drab-breasted Bamboo-Tyrant (<i>Hemitriccus diops</i>)*	U	10.0 [MA]; 8.0, 9.0 (2), 10.0 (2) [MN]
Eye-ringed Tody-Tyrant (<i>Hemitriccus orbitatus</i>)*	U	9.0 (2) [LU]
Rough-legged Tyrannulet (<i>Phyllomyias burmeisteri</i>)	U	19.0 [DM]
Gray Elaenia (<i>Myiopagis caniceps</i>)	M	17.0 [AC2]
	U	15.0 [AC2]
Highland Elaenia (<i>Elaenia obscura</i>)	U	26.0, 27.0, 30.0 [AC2]
Yellow Tyrannulet (<i>Capsiempis flaveola</i>)	U	7.0, 7.0 [MN]
Yellow-olive Flycatcher (<i>Tolmomyias sulphurescens</i>)	U	16.0 [OP]; 15.0 (2), 17.0 [SB]
White-throated Spadebill (<i>Platyrinchus mystaceus</i>)	M	11.0 [SB]; 7.0 [AR]
	F	10.0 [AR]
	U	10.0 [MA]; 9.0, 10.0 [OP]; 9.0, 10.0 [IB]; 6.0 [AR]
	U	9.0, 10.0 (2) [DM]; 10.0 [MN]; 7.0, 10.0 [TA]; 9.0 [BA]
	U	10.0, 11.0 [MN]
Sulphur-rumped Flycatcher (<i>Myiobius barbatus</i>)	U	9.0 [MA]
Euler's Flycatcher (<i>Lathrotriccus euleri</i>)	M	11.0 [TA]
	F	9.0 [AR]
	U	17.0 [MN]
	U]]	11.0 [OP]; 9.0 [MN]
Social Flycatcher (<i>Myiozetetes similis</i>)	U	31.0 [SB]
Grayish Mourner (<i>Rhytipterna simplex</i>)	U	32.0 [DM]
Short-crested Flycatcher (<i>Myiarchus ferrox</i>)	U	26.0 [MN]; 25.0 [SB]
Cinnamon-vented Piha (<i>Lipaugus lanioides</i>)*	U	70.0 [MN]
Pin-tailed Manakin (<i>Ilicura militaris</i>)*	F	13.0 [DM]
White-bearded Manakin (<i>Manacus manacus</i>)	F	12.0 [MA]; 15.0 [DM]; 15.0, 16.0 [TA]
	F	15.0 (2) [AR]; 13.0, 16.0 (2) [SE]
	U	13.0 [MA]; 17.0 [DM]
Swallow-tailed Manakin (<i>Chiroxiphia caudata</i>)*	M	22.0 (2) [MA]; 23.0 [DM]; 22.0, 24.0, 27.0 [IB]
	M[S]	24.0 [IB]
	F	22.0, 24.0 (2) [MA]; 21.0 [MN]; 20.0 [TA]

APPENDIX 1. Continuación.

Common name (Scientific name)	Sex	Body masse (sample size) [Locality]
	F	25.0 [BA]; 20.0, 22.0 [IB]
	U[J]	20.0 [OP]; 20.0 [DM]
	U	22.0 [MA]; 21.0 (2), 23.0 [DM]
Greenish Manakin (<i>Schiffornis virescens</i>)*	U	21.0, 22.0 (2) [IB]
	U[J]	22.0 [MA]
Rufous-browed Peppershrike (<i>Cycularhis gujanensis</i>)	U	27.0 [MN]
Red-eyed Vireo (<i>Vireo olivaceus</i>)	U	15.0 (2) [OP]
Yellow-legged Thrush (<i>Turdus flavipes</i>)	M	62.0 [MN]; 63.0 [DM]
	U	62.0 [DM]; 53.0 [IB]; 53.0 [AC]
Rufous-bellied Thrush (<i>Turdus rufiventris</i>)	M	55.0, 56.0, 60.0 [SB]
	U	81.0 [DM]; 66.0, 70.0 [SB]; 70.0 [TA];
	U	79.0 [BA]; 74.0, 80.0 [AC]
	U[J]	60.0 [AC2]
Pale-breasted Thrush (<i>Turdus leucomelas</i>)	M	78.0 [SB]; 73.0 [AR]; 62.0 [VR]
	U	61.0 [MN]; 64.0 [SB]; 67.0 [TA]; 74.0 [BA]; 61.0 [SE]
	U	55.0 [LU]; 57.0 [IB]; 63.0, 65.0, 71.0, 75.0 [AR];
	U	51.0, 55.0, 56.0 (2), 57.0, 59.0 (2), 59.0, 60.0 (2) [AC2];
	U	61.0, 62.0 (3), 67.0 [AC2]
Creamy-bellied Thrush (<i>Turdus amaurochalinus</i>)	U	61.0 [DM]; 51.0 [SB]; 65.0 [SE]
White-necked Thrush (<i>Turdus albicollis</i>)	M	57.0 [AR]
	U	67.0 [MN]; 66.0 [IB]
Bananaquit (<i>Coereba flaveola</i>)	U	8.0 [MA]; 8.0, 10.0 (2) [OP]
	U[J]	10.0 [OP]
Black-goggled Tanager (<i>Trichothraupis melanops</i>)	M	22.0, 23.0, 24.0 [OP]; 20.0 [MN];
	M	32.0 [DM]; 25.0 [RC]; 30.0 [IB]
	F	22.0, 27.0 [DM]; 25.0 [TA]
	U	20.0 [OP]; 23.0, 24.0 [DM]; 19.0 [IB]
	U[J]	23.0 [IB]
Ruby-crowned Tanager (<i>Tachyphonus coronatus</i>)*	M	24.0, 25.0 [OP]; 23.0 [MA]; 31.0 [SB];
	M	26.0, 28.0, 33.0 [TA]; 25.0 [AR]
	F	24.0 [MA]; 26.0 [OP]; 35.0 [TA]
Brazilian Tanager (<i>Ramphocelus bresilius</i>)*	M	29.0 [AR]; 29.0 [RC]

APPENDIX 1. Continuación.

Common name (Scientific name)	Sex	Body masse (sample size) [Locality]
	F	26.0, 27.0 [RC]
Palm Tanager (<i>Thraupis palmarum</i>)	U	30.0 [DM]
Diademed Tanager (<i>Stephanophorus diadematus</i>)	U	35.0 [LU]; 40.0 [AC1]
Burnished-buff Tanager (<i>Tangara cayana</i>)	M	19.0 [AR]
Rufous-Collared Sparrow (<i>Zonotrichia capensis</i>)	M	21.0, 23.0 [AC2]; 23.0 [IB]
	U	21.0 [MN]
	U]]	16.0 [AC2]
Uniform Finch (<i>Haplospiza unicolor</i>)*	M	14.0, 15.0 (4), 16.0 [TA]; 13.0, 16.0 [AC2]
	F	18.0 [MN]; 15.0, 16.0 [TA]; 13.0, 18.0 [AC2]
Red-rumped Warbling-Finch (<i>Poospiza lateralis</i>)	U	20.0 [AC1]; 17.0, 19.0, 22.0 [AC2]
Half-collared Sparrow (<i>Arremon semitorquatus</i>)*	U	26.0 [MN]; 27.0 [MC]
Green-winged Saltator (<i>Saltator similis</i>)	M	42.0 [SB]
	U	43.0, 45.0, 47.0 [DM]
	U	45.0, 46.0 [MN]; 41.0, 47.0 [SB]
Golden-crowned Warbler (<i>Basilenterus culicivorus</i>)	M	7.0 [SB]
	U	10.0 [SB]; 8.0, 9.0 [BA]