



ATLANTIC BIRD TRAITS: a data set of bird morphological traits from the Atlantic forests of South America

RODOLPHO CREDO RODRIGUES,¹ ÉRICA HASUI, JULIA CAMARA ASSIS, JOÃO CARLOS CASTRO PENA, RENATA L. MUYLEAERT, VINICIUS RODRIGUES TONETTI, FELIPE MARTELLO, ANDRÉ LUIS REGOLIN, THIAGO VERNASCHI VIEIRA DA COSTA, MAURO PICHORIM, EDUARDO CARRANO, LEONARDO ESTEVES LOPES, MARCELO FERREIRA DE VASCONCELOS, CARLA SUERTEGARAY FONTANA, ANDREI LANGELOH ROOS, FERNANDO GONÇALVES, CRISTINA BANKS-LEITE, VAGNER CAVARZERE, MARCIO AMORIM EFE, MARIA ALICE S. ALVES, ALEXANDRE UEZU, JEAN PAUL METZGER, PAULO DE TARSO ZUQUIM DE ANTAS, KATIA MARIA PASCHOALETTI MICCHI DE BARROS FERRAZ, LARISSA CORSINI CALSAVARA, ARTHUR ANGELO BISPO, HELDER F. P. ARAUJO, CHARLES DUCA, AUGUSTO JOÃO PIRATELLI, LUCIANO N. NAKA, RAFAEL ANTUNES DIAS, CASSIANO A. F. R. GATTO, MARCELO ALEJANDRO VILLEGAS VALLEJOS, GREGÓRIO DOS REIS MENEZES, LEANDRO BUGONI, HENRIQUE RAJÃO, JAIRO JOSÉ ZOCHE, GUILHERME WILLRICH, ELSIMAR SILVEIRA DA SILVA, LILIAN TONELLI MANICA, ANDRÉ DE CAMARGO GUARALDO, GIULYANA ALTHMANN, PATRICIA PEREIRA SERAFINI, MERCIVAL ROBERTO FRANCISCO, CAMILE LUGARINI, CAIO GRACO MACHADO, FERNANDO MARQUES-SANTOS, RAFAELA BOBATO, ELIVAN ARANTES DE SOUZA, REGINALDO JOSÉ DONATELLI, CAROLINA DEMETRIO FERREIRA, JOSÉ CARLOS MORANTE-FILHO, NATALIA DANTAS PAES-MACARRÃO, ARTHUR MACARRÃO, MARCOS ROBALINHO LIMA, LUCILENE INÊS JACOBOSKI, CARLOS CANDIA-GALLARDO, VANESA BEJARANO ALEGRE, ALEX E. JAHN, KARLLA VANESSA DE CAMARGO BARBOSA, CESAR CESTARI, JOSÉ NILTON DA SILVA, NATALIA STEFANINI DA SILVEIRA, ANA CRISTINA VARA CRESTANI, ADELIANE PETERLE PETRONETTO, ALEX AUGUSTO ABREU BOVO, ANDERSON DURÃO VIANA, ANDREA CARDOSO ARAUJO, ANDRESSA HARTUIQ DOS SANTOS, ANDREZA CLARINDA ARAÚJO DO AMARAL, ARIANE FERREIRA, ARNALDO HONORATO VIEIRA-FILHO, BIANCA COSTA RIBEIRO, CAIO C. C. MISSAGIA, CAMILA BOSENBECCKER, CESAR AUGUSTO BRONZATO MEDOLAGO, CID RODRIGO RODRIGUEZ ESPINOLA, CLAUDENICE FAXINA, CRISTIANE ESTRELA CAMPODONIO NUNES, CRISTINE PRATES, DANIELA TOMASIO APOLINARIO DA LUZ, DANIELE JANINA MORENO, DANIELE MARIZ, DEBORAH FARIA, DOUGLAS MEYER, EDER AFONSO DONÁ, EDUARDO ROBERTO ALEXANDRINO, ERICH FISCHER, FABIANE GIRARDI, FELIPE BORBA GIESE, FELIPE LEONARDO SANTOS SHIBUYA, FERNANDO AZEVEDO FARIA, FERNANDO BITTENCOURT DE FARIAS, FERNANDO DE LIMA FAVARO, FERNANDO JOSÉ FERNEDA FREITAS, FLÁVIA G. CHAVES, FLOR MARIA GUEDES LAS-CASAS, GABRIEL L. M. ROSA, GABRIEL MASSACCESE DE LA TORRE, GABRIELA MENEZES BOCHIO, GISELLE EVELISE BONETTI, GLAUCO KOHLER, GUILHERME SANTOS TOLEDO-LIMA, GUSTAVO PILETTI PLUCENIO, ÍCARO MENEZES, INGRID MARIA DENÓBILE TORRES, IVAN CELSO CARVALHO PROVINCIIATO, IVAN RÉUS VIANA, JAMES JOSEPH ROPER, JAQUELINE EVELYN PERSEGONA, JEAN JÚNIOR BARCIK, JIMI MARTINS-SILVA, JOÃO PAULO GAVA JUST, JOÃO PAULO TAVARES-DAMASCENO, JOÃO RICARDO DE ALMEIDA FERREIRA, JONAS RAFAEL RODRIGUES ROSONI, JOSÉ EDUARDO TEIXEIRA FALCON, LAURA MARIA SCHAEGLER, LEONARDO BRIOSCHI MATHIAS, LEONARDO RAFAEL DECONTO, LICLÉIA DA CRUZ RODRIGUES, MARCELA AFONSO P. MEYER, MÁRCIO REPENNING, MARCOS ANTÔNIO MELO, MARIA AMÉLIA SANTOS DE CARVALHO, MARCOS RODRIGUES, MARIA FLAVIA CONTI NUNES, MARIA HALINA OGRZEWSKA, MARIANA LOPES GONÇALVES, MAURÍCIO B. VECCHI, MAURÍCIO BETTIO, MICHELLE NORONHA DA MATTA BAPTISTA, MURILO SÉRGIO ARANTES, NICOLÁS LUCIANO RUIZ, PAULO GUILHERME BISETTO DE ANDRADE, PEDRO HENRIQUE LIMA RIBEIRO, PEDRO MANOEL GALETTI JUNIOR, PHOEVE MACARIO, RAFAEL DE OLIVEIRA FRATONI, RAFAEL MEURER, RAFAEL S. SAINT-CLAIR, RAFAEL SPILERE ROMAGNA, RAQUEL CAROLINE ALVES LACERDA, RICARDO AUGUSTO SERPA CERBONCINI, RICARDO BRIOSCHI LYRA, RICARDO LAU, ROBERTA COSTA RODRIGUES, ROGÉRIO RODRIGUES FARIA, RUDI RICARDO LAPS, SÉRGIO LUIZ ALTHOFF, SHAYANA DE JESUS, SUMIKO NAMBA, TALITA VIEIRA BRAGA, TAMARA MOLIN, THANYRIA P. FRANÇA CÂMARA, THAYZ RODRIGUES ENEDINO, USCHI WISCHHOFF, VANESSA CRISTINA DE OLIVEIRA, VICTOR LEANDRO-SILVA, VITOR ARAÚJO-LIMA, VITOR DE OLIVEIRA LUNARDI, REGINALDO FARIAS DE GUSMÃO, JOZÉLIA MARIA DE SOUZA CORREIA, LUCAS P. GASPAS, RENATA CRISTINA BATISTA FONSECA, PAULO AFFONSO FONSECA PIRES NETO, ANA CARLA

Manuscript received 17 August 2018; revised 28 November 2018; accepted 3 December 2018. Corresponding Editor: William K. Michener.

¹ E-mail: rdprodrigues@gmail.com

MEDEIROS MORATO DE AQUINO, BRUNA BETAGNI DE CAMARGO, BEATRIZ AZEVEDO CEZILA, LEONARDO MARQUES COSTA, ROBERTA MONTANHEIRO PAOLINO, CLAUDIA ZUKERAN KANDA, ERISON C. S. MONTEIRO, JÚLIA EMÍ F. OSHIMA, MILENE ALVES-EIGENHEER, MARCO AURELIO PIZO, LUÍS F. SILVEIRA, MAURO GALETTI, AND MILTON CEZAR RIBEIRO

Citation: Rodrigues, R. C., É. Hasui, J. C. Assis, J. C. C. Pena, R. L. Muylaert, V. R. Tonetti, F. Martello, A. L. Regolin, T. V. V. da Costa, M. Pichorim, et al. 2019. ATLANTIC BIRD TRAITS: a data set of bird morphological traits from the Atlantic forests of South America. *Ecology* 100(6):e02647. 10.1002/ecy.2647

Abstract. Scientists have long been trying to understand why the Neotropical region holds the highest diversity of birds on Earth. Recently, there has been increased interest in morphological variation between and within species, and in how climate, topography, and anthropogenic pressures may explain and affect phenotypic variation. Because morphological data are not always available for many species at the local or regional scale, we are limited in our understanding of intra- and interspecies spatial morphological variation. Here, we present the ATLANTIC BIRD TRAITS, a data set that includes measurements of up to 44 morphological traits in 67,197 bird records from 2,790 populations distributed throughout the Atlantic forests of South America. This data set comprises information, compiled over two centuries (1820–2018), for 711 bird species, which represent 80% of all known bird diversity in the Atlantic Forest. Among the most commonly reported traits are sex ($n = 65,717$), age ($n = 63,852$), body mass ($n = 58,768$), flight molt presence ($n = 44,941$), molt presence ($n = 44,847$), body molt presence ($n = 44,606$), tail length ($n = 43,005$), reproductive stage ($n = 42,588$), bill length ($n = 37,409$), body length ($n = 28,394$), right wing length ($n = 21,950$), tarsus length ($n = 20,342$), and wing length ($n = 18,071$). The most frequently recorded species are *Chiroxiphia caudata* ($n = 1,837$), *Turdus albicollis* ($n = 1,658$), *Trichothraupis melanops* ($n = 1,468$), *Turdus leucomelas* ($n = 1,436$), and *Basileuterus culicivorus* ($n = 1,384$). The species recorded in the greatest number of sampling localities are *Basileuterus culicivorus* ($n = 243$), *Trichothraupis melanops* ($n = 242$), *Chiroxiphia caudata* ($n = 210$), *Platyrinchus mystaceus* ($n = 208$), and *Turdus rufiventris* ($n = 191$). ATLANTIC BIRD TRAITS (ABT) is the most comprehensive data set on measurements of bird morphological traits found in a biodiversity hotspot; it provides data for basic and applied research at multiple scales, from individual to community, and from the local to the macroecological perspectives. No copyright or proprietary restrictions are associated with the use of this data set. Please cite this data paper when the data are used in publications or teaching and educational activities.

Key words: body size; functional diversity; individual variation; interspecific variation; phenotypic plasticity; phylogenetic diversity; rapid evolution; tropical forest.

The complete data sets corresponding to abstracts published in the Data Papers section in the journal are published electronically as Supporting Information in the online version of this article at <http://onlinelibrary.wiley.com/doi/10.1002/ecy.2647/supinfo>.