

An annotated avian inventory of the Brazilian state of Alagoas, one of the world's most threatened avifauna

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Abstract. The northeast Brazilian state of Alagoas harbors a rather diverse, and one of the world's most threatened, avifauna. However, the knowledge about its avifauna is currently scattered on several publications and the state's birds have never been comprehensively assembled into a checklist. To fill this shortfall, we present here the first critical review of all available bird records for the state of Alagoas. We present a list of 520 bird species recorded in the state, of which 503 are supported by documentary evidence. We also comment on the distribution, migratory movements, taxonomy and conservation of the region's avifauna and correct previous misidentified or invalid records for the state.

Keywords. Aves; Endangered; Extinction; Murici; Pernambuco Center of Endemism.

INTRODUCTION

Located in a biogeographically privileged part of northeastern Brazil, the state of Alagoas harbors a rather diverse avifauna. It encompasses a portion of the Atlantic Forest remarkable for its high degree of endemism, the so-called Pernambuco Center of Endemism (PCE). This center of endemism – supported by distributional patterns from a varied array of organisms including birds, reptiles, amphibians, invertebrates and plants – comprises the strip of Atlantic Forest north of the São Francisco River (Brown, 1982; Prance, 1982; Silva *et al.*, 2004; DaSilva *et al.*, 2015; França *et al.*, 2020; Peres *et al.*, 2020) and has one of the world's most threatened avifauna (Teixeira, 1986; Collar *et al.*, 1992; Brooks & Balmford, 1996; Lees & Pimm,

2015). The interior of the state, in contrast to the coast's rainforest, forms part of the Caatinga, the largest continuous area of the seasonally dry tropical forest biome, which harbors several birds found nowhere else (Lima, 2021). In addition, the state is bordered by the Atlantic Ocean to the east, where it is rich in seabirds (Olmos, 2002; Sousa *et al.*, 2005; Ramos *et al.*, 2017; Almeida *et al.*, 2019) (Fig. 1).

The first available information on the state's avifauna was gathered when the German naturalist Georg Marcgrave came to study the region's fauna and flora in the then Dutch-controlled northeastern Brazil (Marcgrave, 1648; reviewed by Schneider, 1938; Pinto, 1946; Teixeira, 1992, 2009). After the publication of Marcgrave's *Historia Naturalis Brasiliae*, the state went through almost

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three centuries without any new information regarding its avifauna. The British naturalist William Swainson crossed the state in 1817 on a journey across northeastern Brazil (Swainson, 1819), but he left neither information on his route nor precise localities for the 760 bird specimens he collected in the region (Pacheco, 2004). Later, a group of scientists from the Museum of Comparative Zoology (MCZ), in an expedition to study Brazil's fauna and flora, spent one day (30 July 1865) in Alagoas (Agassiz, 1868; Dick, 1977). Unfortunately, the bird specimens they collected seem to have been mixed with specimens from the state of Bahia and then mislabeled (see the account of *Pyrrhura cruentata* in Appendix 2), so that none can be assigned with certainty to Alagoas. The Brazilian zoologist Rodolpho von Ihering also collected in the state in 1933, as suggested by three bird skins from Santa Luzia do Norte deposited at the Field Museum of Natural History (FMNH), in Chicago. These likely constitute the oldest state records for *Nyctidromus hirundinaceus* (FMNH 111862), *Netta erythrophthalma* (FMNH 111863; Hellmayr & Conover, 1948a) and *Nothura boraquira* (FMNH 111864). New information regarding the state's avifauna appeared in the literature only when the former Department of Zoology of the Secretary of Agriculture (today the Museum of Zoology of the University of São Paulo; MZUSP) carried out two expeditions to collect

birds in Alagoas in 1951 and 1952 (Pinto, 1952, 1954). This same institution carried out another two expeditions in 1957 and 1958 in the state in partnership with the Los Angeles County Museum (LACM). The hundreds of specimens collected in these two latter expeditions were deposited in both the MZUSP and LACM bird collections. Pinto & Camargo (1961) reported on the specimens that were deposited at the MZUSP, but those that were deposited at the LACM have barely appeared in the literature (e.g., Short & Parkes, 1979) and some noteworthy ones will be highlighted here for the first time (e.g., see the account of *Synallaxis hypospodia*). Specimens from these 1951-1958 expeditions yielded an unprecedented increase in the state's bird list and revealed several new bird taxa endemic to the PCE (Pinto, 1952, 1954; Pinto & Camargo, 1961), starting a prolific period of ornithological surveying in the state. Between 1979 and 1988, the Brazilian ornithologist Dante Teixeira led several surveys in Alagoas, especially in areas near the municipality of Murici, which revealed four bird species new to science (Teixeira & Gonzaga, 1983a, b, 1985; Teixeira, 1987) and several range extensions (Teixeira et al., 1986, 1987, 1988, 1989, 1993). The region of Murici then attracted the attention of many ornithologists and birdwatchers that carried out field work in the region in the 1990s and early 2000s and produced several remarkable records (e.g.,

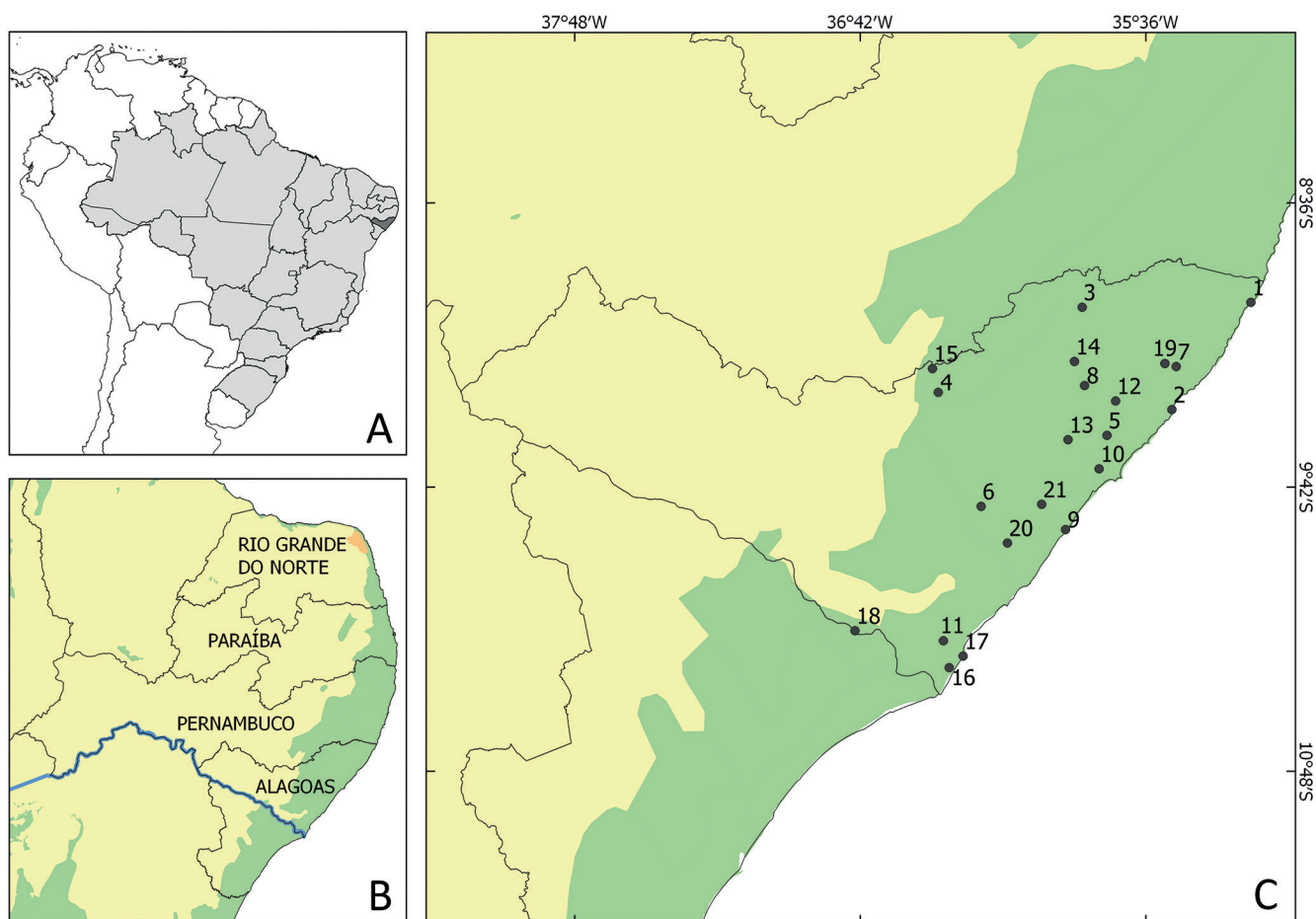


Figure 1. (A) Location of the state of Alagoas highlighted within Brazil. (B) Location of the Pernambuco Center of Endemism (PCE), comprising the Atlantic Forest north of the Sao Francisco River (blue line). The Caatinga is depicted in yellow, the Atlantic Forest in green, and savannas are in orange, adapted from Olson et al. (2001), Sagot-Martin et al. (2020) and Lima (2021). (C) Main sites within the state mentioned throughout the text (numbers as in Table 1).

see the accounts of *Hypoedaleus guttatus*, *Corythopsis delalandi* and *Campylorhynchus turdinus*).

In the meantime, also noteworthy is the long-term work of the ornithologist Anita Studer at the Pedra Talhada Biological Reserve, who has produced valuable information about the avifauna from this important site in the state (e.g., Studer & Vielliard, 1988; Studer, 2015; Studer et al., 2018). More recent bird collection expeditions carried out in the state include one in Olho d'Água do Casado, led by Galileu Coelho and Mário Ferreira da Silva in 1999, which produced a few hundred specimens now deposited at the FMNH and Universidade Federal de Pernambuco (UFPE), in Recife; one at Engenho Coimbra (Usina Serra Grande), led by the ornithologists Sônia Roda, Marcelo Sousa and Jose Tello between 1999 and 2000, which also produced a few hundred specimens deposited at the FMNH and UFPE; another at the same site by the Museu Paraense Emílio Goeldi (MPEG) in June 2010, which produced about seventy specimens; and several expeditions to multiple forest fragments (e.g., Mata do Cedro, Fazenda Santa Justina, Usina Coruripe, Usina Santo Antônio, Usina Sumaúma and Usina Serra Grande) led by LFS between 1999 and 2020, which produced hundreds of specimens deposited at the MZUSP. Also, since 2010 researchers from the Laboratório de Bioecologia e Conservação de Aves Neotropicais (LABECAN) at the Federal University of Alagoas (UFAL) have been monitoring birds in the largest forest fragment of the Murici Ecological Station, and birds collected therein have been deposited at the Museu de História Natural da UFAL (MHNAL), in Maceió. Results from these 1999-2020 expeditions have served as the basis for a number of studies (e.g., Roda & Carlos, 2003; Silveira & Olmos, 2003; Silveira et al., 2003a, b; 2004; Dénes et al., 2011; Batalha-Filho et al., 2013, 2014; Lobo-Araújo et al., 2013; Pereira et al., 2014b, 2019a; Rêgo et al., 2014; Thom & Aleixo, 2015; Tonetti et al., 2017; Campos et al., 2018; Bolívar-Leguizamón et al., 2020; Harvey et al., 2020; Bocalini et al., 2021; Carvalho et al., 2021; Dickens et al., 2021; Francisco et al., 2021; Gonçalves & Efe, 2022). The number of ornithological surveys (e.g., Cabral et al., 2006; Araujo & Rodrigues, 2011; Lyra-Neves et al., 2012; Portes et al., 2018); many notes on specific records for the state have also been published (e.g., Silva e Silva, 1996; Olmos, 2002; Sousa et al., 2005; Mestre, 2007; Lobo-Araújo et al., 2008; Patrial et al., 2011; Pereira et al., 2012; Leal et al., 2013) and bird-watchers have also been producing many new records for the state (WikiAves, 2021).

All this knowledge about the avifauna of Alagoas is, however, currently scattered on several publications and the state's birds have never been comprehensively assembled into a checklist. Thus, we present here the first critical review of all available bird records for the state of Alagoas, wherein we thoroughly consider each species' occurrence to assemble an annotated checklist of the state's avifauna and highlight noteworthy cases, including comments on the distribution (including new records for the state and range extensions for some species), migratory movements, taxonomy and conser-

vation of the region's avifauna. Such a review allows us not only to indicate how many and which bird species occur in the state, but also to synthesize the knowledge accumulated on such species – for instance, about regional patterns of geographic variation, regional extinctions, and pointing out subjects that need further research – and correct misidentified records published for the region, thus preventing their dissemination into the literature.

METHODS

We compiled bird records from the state's mainland and offshore areas up to the edge of the continental shelf (ca. 40 km from the coast). Records came from various sources, including an exhaustive survey of the ornithological literature, searches on online archives such as WikiAves (WA; www.wikiaves.com.br), Macaulay Library (ML; www.macaulaylibrary.org), xeno-canto (XC; www.xeno-canto.org), Fonoteca Neotropical Jacques Vielliard (FNJV; www2.ib.unicamp.br/fnjv), Arquivo Sonoro Elias Coelho (ASEC), Global Biodiversity Information Facility (GBIF; www.gbif.org), VertNet (www.vertnet.org), Integrated Digitized Biocollections (iDigBio; www.idigbio.org) and Brazilian Biodiversity Information System (SiBBR; www.sibbr.gov.br), personal communication with researchers that conducted field work in the state, and our own unpublished records. We also examined hundreds of museum specimens collected in the state, many of which are cited below throughout the species accounts. By searching on GBIF, VertNet, iDigBio and SiBBR, and in the literature, we found bird specimens from Alagoas in the collections of the British Museum of Natural History at Tring (NHMUK), Carnegie Museum of Natural History (CMNH), Field Museum of Natural History (FMNH), Los Angeles County Museum (LACM), Louisiana State University Museum of Natural Science (LSUMZ), Museum of Comparative Zoology (MCZ), Smithsonian National Museum of Natural History (USNM), Western Foundation of Vertebrate Zoology (WFVZ), Museu Nacional do Rio de Janeiro (MNRJ), Museu Paraense Emílio Goeldi (MPEG), Museu de Zoologia da Universidade de São Paulo (MZUSP), Museu de História Natural da Universidade Federal de Alagoas (MHNAL), Coleção Ornitológica da Universidade Federal de Pernambuco (UFPE), Coleção Ornitológica da Universidade Federal do Rio Grande do Norte (UFRN) and Coleção de Aves do Museu de Zoologia da UNICAMP (ZUEC). Every important or biogeographically unexpected record in these collections was carefully checked either physically or through photographs requested from the curatorial staff.

In order to facilitate comparisons among Brazilian state checklists, we follow the taxonomy of the Brazilian Ornithological Records Committee (CBRO; Pacheco et al., 2021). In addition, we adopt their format by dividing the state's checklist into three components to distinguish species according to the availability and validity of documentary evidence (see also Carlos et al., 2010). The primary list includes only species with at least one

documented record in the state (*i.e.*, an evidence-based record such as a specimen, photograph or sound recording), whereas the secondary list includes species with published records for the state, but whose documentary evidence either does not exist (*e.g.*, sight records) or is unavailable. The primary and secondary lists form the state's main checklist, with species of the secondary list presented within brackets to distinguish them from those supported by documented records (Appendix 1). Finally, a tertiary list includes species for which there are published records for the state, but whose evidence is either questionable or considered invalid herein (Appendix 2). The latter is an effective way of cleaning up misidentifications and dubious records from the literature and, of course, species listed therein must not be considered part of the state's avifauna.

Species in the primary list were assigned to one of five categories regarding their status in the state: resident (RE), seasonal visitor from the Northern Hemisphere (VN), seasonal visitor from the Southern Hemisphere (VS), vagrant (VA) or unknown (UN). Species known or assumed to be resident throughout their range were automatically treated as resident in the state unless there is evidence suggesting otherwise, whereas species known to undertake migratory movements (*e.g.*, Sick, 1983, 1997; Chesser, 1994; Somenzari *et al.*, 2018) were analyzed on a case-by-case basis and then classified according to their status within the state. Species in the secondary list were not assigned to such categories because the very occurrence of some of them in the state is uncertain.

All localities mentioned in the species accounts and in the discussion are in Alagoas, unless otherwise stated. Coordinates for the localities in Alagoas are given in Fig. 1 and Table 1, while localities in other states are georeferenced in the main text when necessary.

Table 1. Localities in Alagoas mentioned in the text.

Number	Locality	Longitude	Latitude
1	Barra Grande	08°59'06"S	35°11'44"W
2	Barra de Santo Antônio	09°24'00"S	35°30'00"W
3	Engenho Coimbra	09°00'14"S	35°50'44"W
4	Engenho/Fazenda Riachão	09°20'00"S	36°24'00"W
5	Fazenda Canoas	09°30'00"S	35°45'00"W
6	Fazenda Pindoba	09°46'29"S	36°14'05"W
7	Fazenda Santa Justina	09°14'00"S	35°29'00"W
8	Fazenda Serra Nova	09°18'24"S	35°50'11"W
9	Gunga Beach	09°51'52"S	35°54'35"W
10	Lagoa do Mundaú	09°37'46"S	35°46'49"W
11	Marituba do Peixe Protected Area	10°17'42"S	36°22'49"W
12	Mata da Sela	09°22'00"S	35°43'00"W
13	Mata do Cedro	09°31'00"S	35°54'00"W
14	Murici Ecological Station	09°12'49"S	35°52'31"W
15	Pedra Talhada Biological Reserve	09°14'29"S	36°25'20"W
16	Piaçabuçu Protected Area	10°23'57"S	36°21'28"W
17	Pontal do Peba	10°21'15"S	36°18'15"W
18	Sítio Cajaíba	10°15'22"S	36°43'14"W
19	Usina Santo Antônio	09°13'18"S	35°31'37"W
20	Usina Sinimbu	09°55'00"S	36°08'00"W
21	Usina Sumaúma	09°46'00"S	36°00'06"W

RESULTS

We present a list of 520 bird species recorded in the state of Alagoas, of which 503 are on the primary list and 17 are on the secondary list (Appendix 1). Residents and seasonal visitors correspond to 87.1% ($n = 438$) and 8.8% ($n = 44$) of the primary list, respectively. Vagrants are represented by only four species in the primary list and 17 species have unknown status in the state. We also found 16 species allegedly recorded in the state, but whose records we have considered to be either questionable or invalid (noted as such in Appendix 2). Below we highlight noteworthy records for the state, including new records, range extensions, comments on single records, and notes substantiating the inclusion of every species on the secondary list.

Noteworthy species on the primary list

Crypturellus strigulosus

This Amazonian tinamou with an isolated population in the PCE was seemingly once common and abundant in the lowland rainforests of Pernambuco (Berla, 1946). Three collected at Usina Sinimbu in 1952 (MZUSP 37156-37158; Pinto, 1954), and another six in 1957 (MZUSP 38909-38911; LACM 26744-26746), suggest that it was also common in nearby Alagoas until the 1950s. More recent records range from 1990 to 2019 and are from Dois Irmãos State Park (XC 7951; G.A. Pereira) and Paulista (XC 124710; M. Braun), Pernambuco, and from Passo de Camaragibe (WA 1450011; J.F. Pacheco), Fazenda Pindoba (XC 568540; G.S.T. Lima), Usina Sumaúma (four birds singing in September 2019; LFS) and Usina Santo Antônio (Silveira *et al.*, 2003a), Alagoas. The PCE isolated population is now extremely rare, local, vulnerable to hunting and on the verge of extinction. No captive population of this isolated population is known, and genetic information is not available.

Pauxi mitu

Described from a 17th-century painting (Marcgrave, 1648; Linnaeus, 1766), rediscovered only in the 1950s (Pinto, 1952), and then extinct in the wild during the 1980s (Collar *et al.*, 1992; Silveira *et al.*, 2004), the Alagoas Curassow is now being reintroduced in the wild after a successful captive breeding program (Francisco *et al.*, 2021). Information regarding its puzzling taxonomic history and conservation has been covered in detail elsewhere (Collar *et al.*, 1992; Costa *et al.*, 2017; Silveira *et al.*, 2004, 2008).

Odontophorus capueira plumbeicollis

Formerly known from several locations throughout the PCE and two rainforest enclaves in northern Ceará (Berla, 1946; Pinto & Camargo, 1961; Albano & Girão, 2008; Roda, 2003, 2008; Almeida & Teixeira, 2010), the critically endangered *O. c. plumbeicollis* has only two

known surviving populations, one in Serra de Baturité, Ceará, and the other in the Pedra Talhada Biological Reserve, Alagoas (Studer, 2015).

Geotrygon violacea

One specimen collected at Usina Sinimbu on 18 February 1957 (MZUSP 38945; Pinto & Camargo, 1961; Fig. 2), an unspecified number of individuals observed in Murici in the 1980s (Teixeira et al., 1993), two birds observed at Fazenda Santa Justina in 2017 (LFS), and four birds mist-netted at the Murici Ecological Station between 2011 and 2019 are the only records of this rather rare dove in the PCE.

Chaetura spinicaudus

Two specimens collected at Usina Sinimbu on 13 November 1952 (MZUSP 35984 and 35985; Pinto, 1954; Fig. 3), one collected at the Murici Ecological Station on

5 May 1984 (MNRJ 33826; Teixeira et al., 1986) and another four collected in Murici retrieved on GBIF (MNRJ 34935, 34936, MNA2637 and MNA2647) are the only documented records of this swift in the PCE. Sightings are reported from other sites, including Mata da Sela, Engenho Coimbra, and Usina Santo Antônio (Roda, 2003; Silveira et al., 2003a).

Gallinago undulata gigantea

The occurrence of this species in northeastern Brazil – where it is very local and usually syntopic with the much commoner *G. paraguayae* – is often overlooked in reference works and field guides (e.g., Erize et al., 2006; Van Gils et al., 2020). One specimen collected in São Miguel dos Campos (MNRJ 34436) is the only record of this species in Alagoas. Other records in the PCE include two specimens collected in Recife on 16 July 1943 (USNM 375743) and 15 September 1943 (USNM 375744; Lamm, 1948) and one collected in Igarassu on 4 February 1945 (MNRJ 24678; Berla, 1946), all in Pernambuco.



Figure 2. Violaceous Quail-Dove, MZUSP 38945, collected at Usina Sinimbu, Alagoas, on 18 February 1957 (© Rafael D. Lima).

Chroicocephalus maculipennis

One specimen collected at Barra Grande on 22 September 1883 (NHMUK 1894.10.28.26; Fig. 4) is possibly the only record of this gull in northeastern Brazil (Saunders, 1896; Hellmayr & Conover, 1948b; Pinto, 1978; Sick, 1997). Another specimen collected at Pontal do Peba, identified as being of this species, was retrieved on GBIF (MNRJ 36035), but it was not possible to check it and confirm its identification.

Spheniscus magellanicus

Dantas *et al.* (2013) suggested that the species has recently extended its winter range northward. However, they stated that the species had never been recorded before 2008 in Alagoas, when in fact it had been recorded

in the state since the 1950s (Teixeira *et al.*, 1988). It is not so clear whether the birds that arrive in Alagoas are just vagrants or birds that have extended their winter range, but Magellanic Penguins beached in the region are not uncommon and thus the latter option may be valid (as advocated by Dantas *et al.*, 2013). For instance, a monitoring program found 53 individuals beached between Piaçabuçu, Alagoas, and Conde, Bahia, between 2010 and 2015 (Almeida *et al.*, 2019).

Procellaria aequinoctialis

Previous northernmost records in Brazil are from the states of Bahia and Sergipe (Lima *et al.*, 2004; Sousa *et al.*, 2005; Somenzari *et al.*, 2018). One carcass found at Gunga Beach on 6 July 2018 is the only record in Alagoas (Fig. 5).



Figure 3. Band-rumped Swifts, MZUSP 35984 and 35985, collected at Usina Sinimbu, Alagoas, on 13 November 1952 (© Rafael D. Lima).

Mycteria americana

Records in the state are restricted to October-April (WikiAves, 2021). With the exception of two records in June and July, records from the nearby states of Ceará, Rio Grande do Norte, Paraíba, Pernambuco and Sergipe on WikiAves are also restricted to October-April (WikiAves, 2021), suggesting that Wood Storks may be seasonal visitors in extreme northeastern Brazil. The species is known to undertake migratory movements according to local water levels, leaving breeding grounds when the water

level is too high for tactile feeding (Del Lama *et al.*, 2015); thus, the Caatinga may provide a suitable habitat during the region's rainy season.

Elanoides forficatus

Records from extreme northeastern Brazil are few and sparse, and always involving single individuals. All records from the states of Ceará, Rio Grande do Norte, Pernambuco and Alagoas fall between October and April (Roda & Pereira, 2006; Pereira *et al.*, 2014b; WikiAves,



Figure 4. Brown-hooded Gull, NHMUK 1894.10.28.26, collected at Barra Grande, Maragogi, Alagoas, on 22 September 1883 (© Mark Adams).



Figure 5. White-chinned Petrel found at Gunga Beach, Roteiro, Alagoas, on 6 July 2018 (© Instituto Biota de Conservação).

2021; V. Leandro *pers. comm.*), but there are records in the nearby state of Piauí almost year-round (WikiAves, 2021). The only documented record for Alagoas is one individual photographed in Japaratinga on 19 October 2018 (WA 3332050; R. Oliveira). We tentatively assume that the subspecies in the state is *E. f. yetapa*, but it remains to be assessed whether birds that reach the region come from North America (*E. f. forficatus*) or from other regions (*E. f. yetapa*) and whether the species is a regular visitor in extreme northeastern Brazil.

Harpagus bidentatus

One specimen collected in Goiana, Pernambuco, in October 1945 (Lamm, 1948) and two photographs from the Murici Ecological Station in January 2008 (WA 57323; C. Albano) and November 2009 (WA 108070; F. Tavares) are the only documented records in the PCE.

Strix virgata

Seemingly uncommon and local in the PCE (Roda & Pereira, 2006; Sagot-Martin *et al.*, 2020). Reference works, likely based only on records from the state of Maranhão and unaware of the species' occurrence in the PCE, usually assign the populations throughout northeastern Brazil to the whitish-bellied Amazonian form *S. v. superciliaris* (König

& Weick, 2008; Holt *et al.*, 2020). However, birds in the PCE exhibit a brown belly (*e.g.*, WA 2156248; S. Jones) and thus are best assigned to the Atlantic Forest form *S. v. borelliana*.

Trogon viridis

Formerly recorded in several sites in the states of Pernambuco and Alagoas (Berla, 1946; Pinto, 1954; Farias *et al.*, 2002; Roda, 2003; Silveira *et al.*, 2003a; Minns *et al.*, 2010; Pereira *et al.*, 2019b), thus suggesting that the species was once common or at least more widespread in the region. However, it has not been recorded in the PCE for nearly a decade. In the Murici Ecological Station, three were observed between 4 and 5 March 2001, of which one was tape-recorded (ML 128023; C. Marantz *pers. comm.*), and another was tape-recorded on 11 October 2002 (XC 511851; D. Buzzetti). Despite several ornithologists and birdwatchers conducting field work at this site, Green-backed Trogons have not been recorded there anymore. The last record of this species in the PCE we are aware of is a male photographed in Passo de Camaragibe, Alagoas, on 23 March 2013 (WA 1423861; J. Nogueira).

Trogon collaris eytoni

One female collected in Murici on 11 May 1984 (Teixeira *et al.*, 1986) is the only record of this species in

the PCE. Despite dozens of ornithologists and hundreds of birdwatchers conducting field work in Murici in the last four decades, no new records of the species have been produced, suggesting it may be extinct in the PCE.

Chelidoptera tenebrosa

One specimen supposedly collected in Maceió in 1865 (MCZ 7237) cannot be assigned with certainty to Alagoas (see Introduction), and thus four collected at Usina Sinimbu in February–March 1957 (LACM 26813, 26814, MZUSP 38985 and 38986) are likely the only records of this species in Alagoas. In the PCE, it was also recorded in Mamanguape, Paraíba (Pinto & Camargo, 1961).

Monasa nigrifrons

The isolated population in the PCE is known from only four records. One specimen collected at Fazenda Santa Justina on 17 March 1987 (MNRJ 34915; Teixeira *et al.*, 1988) and another tape-recorded in Pilar on 31 December 1990 (WA 1258860; J.F. Pacheco) are the only records of this species in Alagoas. In nearby Pernambuco, it was recorded at Usina Trapiche (08°32'00"S, 35°12'11"W) on 15 October 2007 (XC 205736; Pereira *et al.*, 2008) and at Mata do Estado (07°37'11"S, 35°30'11"W) on 5 February 2012 (XC 322376; M. Braun). The absence of recent records in the region suggests that the species may be locally extinct.

Celeus flavus subflavus

The occurrence of this species in the PCE has sometimes been overlooked in reference works (*e.g.*, Short, 1982; Gorman, 2014). The collection of two individuals at Usina Sinimbu in 1952 (MZUSP 37301 and 37302; Pinto, 1954), another three at this same site in 1957 (MZUSP 38993, LACM 26799 and 26800), one in Coruripe (MNRJ 33860), and two at Fazenda Santa Justina (MNRJ 35716 and 35717), in the 1980s, suggest that this woodpecker was once common in the state's coastal forests. We are not aware of any records in the PCE since the 1980s and the taxon may therefore be extinct in the PCE.

Amazona rhodocorytha

Three collected at Usina Sinimbu on 7 March 1957 (LACM 26764, MZUSP 38953 and 38954; Pinto & Camargo, 1961) and one collected from a flock of six in April 1984 (MNRJ 33807) are the only specimens of this threatened parrot in the PCE (Collar *et al.*, 1992). We photographed and tape-recorded four individuals in a forest fragment at Usina Sumaúma, and this tiny population is being monitored since 2017. The species is on the verge of extinction in the PCE.

Myrmotherula snowi

Discovered in Murici (Teixeira & Gonzaga, 1985) and later recorded in three other localities in the state of

Pernambuco, the species is currently recorded only in the Murici Ecological Station (Pereira *et al.*, 2014a), wherein the population is estimated at less than 30 individuals (Gonçalves & Efe, 2022).

Thamnomanes caesius

Records in several localities, both in lowland and montane forests, in the states of Alagoas (Pinto, 1954; Teixeira, 1987; Roda, 2003; Minns *et al.*, 2010), Pernambuco (Berla, 1946; Roda, 2003; Lyra-Neves *et al.*, 2004) and Paraíba (eBird checklist S55209298 by F. Olmos & S. Roda), suggest that Cinereous Antshrike was once widespread in the PCE. The last known records in the region are tape-recordings from the Murici Ecological Station in 2004 (*e.g.*, XC 521955; D. Buzzetti). Despite several ornithologists and birdwatchers conducting field work at most of these sites, particularly at the latter (*e.g.*, Gonçalves & Efe, 2022), no recent records are known. The species is likely extinct in the PCE.

Hypodaleus guttatus

One individual tape-recorded at the Murici Ecological Station on 28 November 1993 (WA 1299779; Pacheco & Whitney, 1995) is the only record of this species in the PCE. This very vocal and easy-to-detect antshrike is likely extinct in the state.

Drymophila squamata

Unpublished genetic data suggest that the PCE population has diverged from populations south of the São Francisco River (Fazza, 2015). It is probably extinct in the neighboring state of Pernambuco, wherein the last documented record we are aware of is a male tape-recorded in 2008 (WA 1369365; C. Albano). The PCE population of the Scaled Antbird survives only in the Murici Ecological Station. Ornithologists that surveyed the region between the 1980s and early 2000s reported that the species was very common (Teixeira *et al.*, 1986; eBird checklist S64422055 by T. Schulenberg; C. Marantz *pers. comm.*), but now it seems to be almost as scarce as *Myrmotherula snowi*, with only 22 birds captured during more than ten years of mist netting at the Murici Ecological Station (October 2010 – March 2021). The PCE population probably deserves conservation concern.

Chamaeza campanisona

Disjunctly distributed across much of South America (Ridgely & Tudor, 2009), the Short-tailed Antthrush has an isolated population in the Pedra Talhada Biological Reserve, where it is seemingly common (Teixeira *et al.*, 1988; Studer, 2015; Studer *et al.*, 2018).

Sclerurus macconnelli bahiae

One collected at Usina Sinimbu on 28 February 1957 (MZUSP 39040; Pinto & Camargo, 1961; Fig. 6) is the only

documented record, and perhaps the only record at all, of this leaf-tosser in the PCE. Undocumented records in northern Pernambuco (Roda, 2002; Roda & Carlos, 2004; Pereira, 2009a, b) are only mentions on species lists and lack evidence to be credible.

Sclerurus caudacutus caligineus

Historically known from only two or three localities in the PCE, *S. c. caligineus* is on the brink of extinction (CEMAVE, 2018). Three specimens, including the holotype, were collected in 1952 (MZUSP 36415, 37367 and 37368; Pinto, 1954), and another three in 1957 (MZUSP 39041, LACM 26867 and 26868), at Usina Sinimbu. Another was collected in São Miguel dos Campos (MNRJ 32033) and three at the Murici Ecological Station (MNRJ 32034, 32035 and 34537) in the 1980s. The lowland forests of Usina Sinimbu and São Miguel dos Campos were entirely transformed into sugar cane plantations and *S. c. caligineus* has currently been re-

corded only at the Murici Ecological Station, where it is very rare; during more than ten years of mist netting, only one individual was captured there in January 2017.

Dendrocolaptes medius

Records from four different sites in the lowland rainforests of Pernambuco and Alagoas suggest that this woodcreeper was relatively more widespread in the PCE until the 1950s. One specimen was collected in Igarassu, Pernambuco, in 1945 (MNRJ 24788; Berla, 1946), two in São Miguel dos Campos in 1951 (MZUSP 37307 and 37308; Pinto, 1954), two in Rio Largo in 1951 (MZUSP 37309 and 37310; Pinto, 1954), and two at Usina Sinimbu in 1957 (MZUSP 38999 and LACM 26865). Once the region's lowland forests have been virtually decimated, the species is currently known from only one site, the Murici Ecological Station, where it is seemingly very rare and may be close to extinction.



Figure 6. Tawny-throated Leaf-tosser, MZUSP 39040, collected at Usina Sinimbu, Alagoas, on 28 February 1957 (© Rafael D. Lima).

Campylorhamphus trochilirostris

The state of Alagoas seems to harbor (or has once harbored) two distinct forms of the *Campylorhamphus trochilirostris* complex, which, as currently delimited (Marantz *et al.*, 2003), is polyphyletic (Portes, 2014; Harvey *et al.*, 2020) and includes vocally distinct populations (RDL *pers. obs.*). A specimen collected at Fazenda Canoas on 12 October 1951 (MZUSP 37334) is morphologically much closer to birds from the lowland forests of eastern Bahia (*C. t. trochilirostris*) than to birds from the South American dry diagonal (*C. t. major*) and thus likely pertains to the nominate form (Pinto, 1954; Fig. 7). Another specimen, collected at Sítio Cajaíba on 22 November 2009 (MZUSP 84517), and all other records in the state (*e.g.*, WA 1357337; P. Têia) are identical to birds from the South American dry diagonal and thus are best assigned to *C. t. major*. Interestingly, a specimen from Jaqueira, Pernambuco (FMNH 392474), grouped phylogenetically with birds from the South American dry diagonal (*C. t. major*) rather than with birds from eastern Bahia (*C. t. trochilirostris*) in an unpublished molecular phylogeny of the genus *Campylorhamphus* (Portes, 2014). This indicates that both forms occur in the PCE, being the nominate likely restricted to the lowlands and *C. t. major* a peripheral inhabitant of the interior forests. A specimen from Murici (MNRJ 34523) has never been examined and is of unknown identity.

Synallaxis hypospodia

Although some reference works mention the species' occurrence in Alagoas (*e.g.*, Sick, 1997), specific records from the state have never been reported in the primary literature. One specimen collected at Usina Sinimbu on 12 March 1957 (LACM 26877; Fig. 8) is the first state record, which has never been reported in the literature possibly because the specimen was confused in the field with another regionally commoner *Synallaxis* spintail. The species was later tape-recorded at Fazenda Riachão on 22 April 1985 (FNJV 8568; J. Vielliard), 18 May 1988 (FNJV 9236; J. Vielliard) and 23 May 1988 (FNJV 10033; J. Vielliard), and at Fazenda Serra Nova on 13 October 1987 (ML 272328; T. Schulenberg), and collected at Fazenda Riachão (MNRJ 34974), Grota do Uruçú (MNRJ 34975), São Miguel dos Campos (MNRJ 34533) and Maceió (MNRJ 36347) in the 1980s. In the PCE, the species is also known from nearby Pernambuco (*e.g.*, Farias *et al.*, 2002; WikiAves, 2021).

Carpornis melanocephala

An isolated population in the PCE is known only from the Murici Ecological Station, where one specimen was collected in 1983 (MNRJ 33904; Teixeira *et al.*, 1986) and many individuals have been photographed and tape-recorded until today. The size of this population, however, is unknown.

Procnias nudicollis

Records of this species in the states of Paraíba (Zenaide, 1953), Pernambuco (Berla, 1946) and Alagoas

(Teixeira *et al.*, 1986; Roda & Carlos, 2003) suggest that it was once widespread within the PCE. In Alagoas, three specimens were collected at the Murici Ecological Station in 1984 (MNRJ 33906-33908), where the species seemed to be common (Teixeira *et al.*, 1986). No recent records are known in the PCE.

Tityra inquisitor

Two specimens collected at Engenho Coimbra on 15 July 2000 (UFPE 3218 and FMNH 427127, the former reported by Roda & Carlos, 2003) are the only records of this species in the PCE.

Oxyruncus cristatus

An isolated population in the PCE is known from only four sites: Murici Ecological Station (Teixeira *et al.*, 1986), Engenho Coimbra (Roda, 2003), Pedra Talhada Biological Reserve (Pereira *et al.*, 2008; Studer *et al.*, 2015) and Mata de Maria Maior (Pereira *et al.*, 2008), the latter in Pernambuco.

Piprites chloris

An isolated population in the PCE has previously been reported from the state of Pernambuco (Roda & Dantas, 2008; Pereira *et al.*, 2012). Recent photographic records in Passo de Camaragibe (WA 1624207; J. Nogueira) and São Miguel dos Milagres (WA 2397244; E. Ramirez) and one specimen collected in Passo de Camaragibe (MZUSP 107491) are the first records for Alagoas, thus extending the known range of the PCE population.

Platyrinchus leucoryphus

This Atlantic Forest endemic is known to occur from Paraguay to southern Bahia, Brazil (Collar *et al.*, 1992; Gabriel & Silva-Filho, 2011). One individual mist-netted and collected at the Murici Ecological Station on 10 October 2010 (MHNAL 356; Fig. 9) constitutes the northernmost record by approximately 840 km and the only one in the PCE. No species of the genus *Platyrinchus* is known to undertake migratory movements, therefore we assume that a population had gone unnoticed in the PCE until then. Because it has never been recorded again in the PCE, this single record may have been the first and the last of this putative PCE population (as with *Hypoedaleus guttatus*). The collected specimen was compared with the series housed at MZUSP and no clear plumage or morphometric differences were found.

Corythopis delalandi

This flycatcher was tape-recorded twice at the Murici Ecological Station, on 22 March 1998 and 29 January 2000 (Minns *et al.*, 2010), and since then it has never been recorded again in the PCE. These records in Alagoas represent a considerable extension of the species' range depicted in reference works (Ridgely & Tudor, 2009;



Figure 7. From left to right: *Campylorhamphus trochilirostris trochilirostris* from Igrapiúna, Bahia (MZUSP 91432), Rio Jucuruçu, Bahia (MZUSP 14183), and Fazenda Canoas, Alagoas (MZUSP 37334); and *Campylorhamphus trochilirostris major* from Pacoti, Ceará (MZUSP 33262), and Sítio Cajaíba, Alagoas (MZUSP 84517) (© Rafael D. Lima).



Figure 8. Cinereous-breasted Spinetail, LACM 26877, collected at Usina Sinimbu, Alagoas, on 12 March 1957 (© Kimball L. Garrett).

Fitzpatrick, 2020). The species is often common where it occurs, thus its current absence in the PCE may suggest that it is extinct in the region.

Pseudocolopteryx sclateri

This marsh-dwelling flycatcher has a remarkable patchy distribution across much of South America (Ridgely & Tudor, 2009). In northeastern Brazil, it was known only from southeastern Bahia (Pinto, 1944; Sick, 1997). One recently photographed at the Marituba do Peixe Protected Area on 16 May 2020 (ML 236683251; E. Vieira) is the only record of the species in the PCE. Curiously, unpublished data had already suggested habitat suitability for this species precisely in the region of this record (Jordan, 2018).

Campylorhynchus turdinus

Two pairs tape-recorded at the Murici Ecological Station on 2 March 2001 (ML 128007 at 39-48 seconds), and one individual seen at the same site on 4 March 2001 (C. Marantz *pers. comm.*), are the only records in the PCE and are being reported for the first time here. No records have been produced since then, suggesting this conspicuous species may be extinct in the region.

Turdus fumigatus

Four specimens collected at Fazenda Santa Justina on 16 March 1987 (MNRJ 34926-34929; Teixeira *et al.*, 1988) are the only documented records in Alagoas. The species was reported to be extremely sought by bird trap-



Figure 9. Russet-winged Spadebill mist-netted at the Murici Ecological Station on 10 October 2010 (© LABECAN/UFAL).

pers in Murici and was often found in local markets in Maceió during the 1980 and early 1990s (Fernando Pinto *pers. comm.*). Undocumented records at Mata do Cedro (Campos *et al.*, 2018) are possibly misidentifications.

Turdus albicollis

Usually considered to be sedentary, this species was not included in a recent review of migratory birds in Brazil (Somenzari *et al.*, 2018). However, almost all records in the PCE fall between October and April (Berla, 1946; Pinto & Camargo, 1961; Roda, 2003; Silveira *et al.*, 2003a; Minns *et al.*, 2010; and several sound recordings on ASEC, FNJV, ML and XC), suggesting that the species is likely a migrant in the region. The only exception to this putative pattern of seasonality we are aware of is one specimen collected at Engenho Coimbra on 29 July 2000 (FMNH 427206). It has also been recorded at the Pedra Talhada Biological Reserve (Studer *et al.*, 2015), but no date information is available.

Cacicus haemorrhous

The collection of seven red-rumped caciques between 1951 and 1952 (MZUSP 37684-37690; Pinto, 1954), and another eleven in 1957 (MZUSP 39265-39269; LACM 27141, 27142, 27164-27167), at the coastal forests of Alagoas suggest that the species was once common in the state. It was also collected in nearby Pernambuco in 1880 (NHMUK 1885.11.2.114 and 1885.11.2.115; W. Forbes), 1903 (NHMUK 1903.12.15.62 and 1903.12.15.63; A. Robert) and 1927 (AMNH 245727, 245728, 245748-245751; E. Kaempfer). Although the species was once common in the PCE (Teixeira, 1992), it has currently been recorded only in the vicinity of the Murici Ecological Station (*e.g.*, WA 4222775; C. Almeida) and may be close to local extinction.

Anumara forbesi

The great morphological similarity of this species and the more widespread Chopi Blackbird *Gnorimopsar chopi* has been a source of confusion and misidentified re-

ords since its discovery (Short & Parkes, 1979; Studer & Vielliard, 1988; Collar *et al.*, 1992). The Forbes's Blackbird was long known only from the holotype in the British Museum at Tring, until Short & Parkes (1979) discovered several misidentified museum specimens of the species. They found that some specimens collected in Alagoas, in the expedition carried out by the MZUSP in partnership with the LACM between 1957 and 1958, had been misidentified as *G. chopi*. Short & Parkes (1979), however, examined only those specimens deposited at the LACM, and not those at MZUSP, which remained misidentified and had their identification corrected later by Collar *et al.* (1992). Thus, all specimens collected in Alagoas between 1951 and 1957 and formerly identified as *G. chopi* (Pinto, 1954: 92; Pinto & Camargo, 1961: 273) are in fact *A. forbesi* (MZUSP 37714, 39281-39290; LACM 27134-27140).

Habia rubica

Formerly known from at least ten sites in the PCE (Berla, 1946; Lamm, 1948; Pinto, 1954; Roda, 2003; Minns *et al.*, 2010), the species was until recently regarded as extinct in the region due to the absence of records between 2007 and 2018. However, it has recently been rediscovered at the Murici Ecological Station, Alagoas (ML 133034621; A. Andrade), and at Fazenda Morim (08°52'04"S, 35°12'31"W), Pernambuco (WA 4563059; S. Jones).

Tersina viridis

A few hundred photographic records on WikiAves from the Brazilian states of Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe and Bahia fall between March and August (WikiAves, 2021), suggesting that the species is a seasonal visitor in northeastern Brazil. Literature records from this region are scarce, but generally corroborate this pattern (*e.g.*, Dantas *et al.*, 2007; Pereira *et al.*, 2012; Silva *et al.*, 2012; Somenzari *et al.*, 2018). The seemingly complex migratory movements of the Swallow Tanager are little known (Somenzari *et al.*, 2018) and thus further study, especially with tracking technologies such as geolocators, is warranted.

Cissopis leverianus

One specimen collected at the Saltinho Biological Reserve, Pernambuco, on 19 September 1979 (UFPE 863) and three collected in Matriz de Camaragibe, Alagoas, in the 1980s (MNRJ 34562, 35118 and MNA695) are the only documented records of this species in the PCE. More recent records in the PCE are all undocumented and are more than ten years old (Farias *et al.*, 2002; Roda, 2003; Lyra-Neves *et al.*, 2004; Dantas *et al.*, 2007; Rodrigues *et al.*, 2007; Pereira, 2009c) thus suggesting that the species, as many others, may be regionally extinct. Interestingly, Teixeira *et al.* (1987) identified one specimen from Matriz de Camaragibe as being of the white-backed Amazonian subspecies *C. l. leverianus*. However, the specimen from the Saltinho Biological Reserve (examined only through photographs) seems to be of the black-backed subspe-

cies (*C. l. major*). A comprehensive study is needed to assess the taxonomic validity and geographic distribution of *C. l. leverianus* and *C. l. major*.

Species on the secondary list

Crypturellus zabele

Recorded at the Piaçabuçu Protected Area (Roda, 2003; ICMBio, 2010). Despite the lack of documentary evidence, we consider this record to be valid because there are documented records less than 80 km away in the neighboring state of Sergipe (*e.g.*, WA 3982455; L.D. Barros), and others north of the São Francisco River in the states of Paraíba (WA 1281651; M. Holderbaum) and Rio Grande do Norte (Sagot-Martin *et al.*, 2020), suggesting that this species' occurrence in the region is not unlikely.

Crax cf. fasciolata

Independent anecdotal evidence convincingly indicates that a curassow of the genus *Crax* occurred in the PCE until the 20th century (Pinto, 1952; Teixeira *et al.*, 1987; Teixeira, 1992; Lees & Pimm, 2015). The species was painted, supposedly based on birds from the PCE, during the 17th century in the then Dutch-controlled northeastern Brazil (see Marcgrave, 1648: 195; Teixeira, 2009: 117; reviewed by Teixeira, 1992). Later, oral testimonies from multiple old hunters in coastal Alagoas also indicated the past occurrence of "a curassow other than *Pauxi mitu*" (Pinto, 1952) or "a yellow-billed curassow" (Teixeira, 1992) in the region. Thus, both paintings of birds putatively from the PCE and multiple oral testimonies from hunters suggest the historic existence of a curassow of the genus *Crax* in the PCE. As speculated by other authors (Pinto, 1946, 1952; Teixeira, 1992), it is possible that the PCE population of this curassow was related to *C. f. pini-ma* from eastern Amazonia. Such a distributional pattern makes sense from a biogeographical perspective because it matches the pattern of other bird lineages with an isolated population in the PCE and a sister population in eastern Amazonia, including *Xenops minutus* (Burney, 2009), *Thamnophilus aethiops* (Thom & Aleixo, 2015), *Cercomacroides laeta* and *Dendrocolaptes medius*.

Streptoprocne zonaris

Listed for the Pedra Talhada Biological Reserve without any details about specific records (Studer *et al.*, 2015). It is worth mentioning the possibility of confusion with *S. biscutata*, but because both species are not unlikely to occur in the state, we tentatively accept the authors' identification. Further records are needed to determine which (if any) *Streptoprocne* swift occurs in the state.

Heliactin bilophus

Mentioned for the state in some reference works without any reference to specific records (Sick, 1985,

1997; Schuchmann, 1999). Alagoas is the only state within the PCE that has no documented records for this species. There are records in nearby Pernambuco, less than 20 km distant from Alagoas, in habitats that are widely available in the state, so we consider that it may be just a matter of time for a record to be produced in the state.

Discosura longicaudus

Recorded at the Murici Ecological Station (Roda, 2003). Despite the lack of documentary evidence, we consider this record to be valid according to the species' distributional pattern; it has several documented records in nearby Pernambuco, both in coastal (*e.g.*, Berla, 1946) and highland forests (*e.g.*, WA 2528338; S. Jones).

Haematopus palliatus

One individual was observed at Lagoa do Mundaú on 26 April 1987 (Teixeira *et al.*, 1988) and the species was later listed as a resident at the Piaçabuçu Protected Area (Cabral *et al.*, 2006). These are the only records for the state of Alagoas.

Calidris canutus

Singles and small flocks in winter plumage have been recorded at the Piaçabuçu Protected Area (MAE *pers. obs.*), but no documentary evidence of these record was produced.

Stercorarius antarcticus

One individual banded as a nestling in King George Island on 17 January 1988 was recovered in Maceió on 6 November 1988 (Olmos, 2002). Because no documentary evidence of this record was produced, the species is included in our secondary list.

Sternula antillarum

One individual banded in Florida, USA, on 23 May 1970 and another banded in Massachusetts on 2 July 1988 were recovered in southern Alagoas on 10 January 1992 (Olmos, 2002). The species was also recorded at the Piaçabuçu Protected Area (Cabral *et al.*, 2006). There is no documentary evidence for these records, however, and thus the species is on our secondary list.

Thalassarche melanophris

Among several banded as nestlings in the Falkland Islands between 1961 and 1963, one was recovered a few years later in Maceió (Sick, 1997; Olmos, 2002; Sousa *et al.*, 2005).

Ardeola ralloides

One individual observed at Barra de Santo Antônio on 17 October 2017 (MAE *pers. obs.*) is the only state

record. This record adds to the growing number of records of this Old World heron in mainland northeastern Brazil and suggests that it is colonizing the New World, as predicted by Davis (2010) and Whittaker *et al.* (2019). The species was first reported in South America on Fernando de Noronha Island in June 1986, when a single adult was seen (Teixeira *et al.*, 1987). Between November and December 2004, several birds were recorded again on the island (Silva e Silva & Olmos, 2006) and now a self-sustaining population seems to have become established therein (Davis, 2010; Whittaker *et al.*, 2019). Recently, it has also been recorded in several sites in mainland northeastern Brazil: Fortaleza in March 2018 (WA 2915623; J. Amaya) and Caucaia in August 2019 (WA 3479117; L. Soares), Ceará; Gurinhém in March 2020 (WA 3711727; G. Luz) and João Pessoa in January 2021 (WA 4182921. J. Abraão), Paraíba; Ipojuca in October 2021 (WA 4535114; S. Almeida) and February and March 2022 (*e.g.*, WA 4777127; A. Wittmann), Pernambuco; and the abovementioned Alagoas record. These records suggest that we are witnessing a rapid and successful transatlantic colonization event.

Spizaetus ornatus

The putative historic occurrence of this hawk in the PCE is an enigma (reviewed by Carlos & Girão, 2006) that will probably never be solved due to the massive deforestation that the region has undergone. Here, we tentatively treat Marcgrave's (1648) record – of a bird kept in captivity near the current municipality of Penedo – as valid for the state of Alagoas, but it is worth noting that deciding whether to put this species on our secondary or tertiary list is entirely a matter of speculation given the available evidence (see Carlos & Girão, 2006), so that both options would be equally reasonable.

Bubo virginianus

One individual observed at the Murici Ecological Station on 19 January 1986 (Teixeira *et al.*, 1987) is the only record of this owl for the state. Given the documented presence of this species in extreme northeastern Brazil (Lima *et al.*, 2018), its occurrence in Alagoas is not so unexpected.

Falco ruficularis

One individual observed in Porto de Pedras on 20 February 1986 (Teixeira *et al.*, 1987) is the only record of this falcon both in the state and in the PCE (Roda & Pereira, 2006). Documented records in northern Bahia (*e.g.*, WA 1118527; P.C. Lima) suggest that this species' occurrence in Alagoas is not unlikely.

Pyrhura griseipectus

Undocumented sightings from Murici are the only clues to the putative occurrence of this species in Alagoas (Teixeira *et al.*, 1988; J.F. Pacheco *pers. comm.* in Olmos

et al., 2005). Individuals were illegally captured in Murici and sold at local bird markets, but no photographs or specimens from Alagoas survived to date. The species has documented records from some rainforest enclaves and inselbergs in the states of Ceará and Pernambuco (Olmos *et al.*, 2005; Girão *et al.*, 2010) and was recently found in northern Bahia (*e.g.*, WA 4175054, C. Brito), although the latter population seems to exhibit a slightly distinct color on the top of the head and may be of a different taxon. Regarding the putative records from the PCE (*e.g.*, Marcgrave, 1648; Zenaide, 1953; Teixeira *et al.*, 1988) as valid makes sense from a biogeographic perspective because several other birds, such as *Odontophorus capueira plumbeicollis* and *Xiphorhynchus atlanticus*, share the same distributional pattern.

Thectocercus acuticaudatus

Many flocks, identified as being of this species, were observed in the municipalities of Quebrangulo and Porto de Pedras between 1987 and 1988 (Teixeira *et al.*, 1989). On the one hand, documented records in northern Bahia (*e.g.*, WA 4346261; P.E. Matos) and records in Pernambuco (Sousa *et al.*, 2012) suggest that this species' occurrence in Alagoas is not unlikely and, therefore, that Teixeira *et al.*'s (1989) records may be valid. On the other hand, it is odd that many flocks were observed, and the species seemed to be common in Alagoas (Teixeira *et al.*, 1989), but it has never been recorded again in the state despite extensive ornithological surveying and birdwatching in Quebrangulo (Studer, 2015; WikiAves, 2021), and thus there remains a possibility that Teixeira *et al.*'s (1989) records might be misidentifications of *Diopsittaca nobilis*, which is known from these sites. We tentatively treat the abovementioned undocumented records as valid considering that the species' occurrence in Alagoas is not unlikely.

Philohydor lictor

Two collected in Mamanguape, Paraíba (MZUSP 40088 and 40089; Pinto & Camargo, 1961), establish this species' occurrence in the PCE. The only other records in the region, all undocumented, were at the Murici Ecological Station (J.M. Barnett *pers. comm.* in Roda, 2003) and in a few localities in the state of Pernambuco (Farias *et al.*, 2002).

DISCUSSION

The avifauna of the state of Alagoas is relatively well known compared with that of other states in northeastern Brazil (*e.g.*, Sagot-Martin *et al.*, 2020). Marcgrave's pioneering contribution along with that of some ornithologists who conducted important ornithological surveys in the state (Pinto, 1952, 1954; Pinto & Camargo, 1961; Teixeira *et al.*, 1986, 1987, 1988, 1989, 1993; Roda, 2003; Silveira *et al.*, 2003a; Studer, 2015) and, more recently, records produced by birdwatchers (approximately 39 spe-

cies listed herein were first recorded for the state by bird-watchers who archived their records on WikiAves), have culminated in a list of 520 bird species recorded in the state, of which 503 have at least one record with associated documentary evidence. It is almost impossible, however, not to think about the probable richer avifauna the state harbored before the almost complete devastation of its rainforests. Single records such as those of *Trogon collaris* and *Hypoedaleus guttatus*, as well as evidence of the past occurrence of some species such as *Crax cf. fasciolata* (Lees & Pimm, 2015), are traces of this putative richer avifauna. Many other recent and ongoing extinctions in the region seem to be just the tip of the iceberg, given that we may have already reached a point of no return for many other birds, such as *Trogon muriciensis*, *Sclerurus caudacutus caligineus* and *Myrmotherula snowi* (but see a more optimistic view in Devey & Phalan, 2021). Many bird taxa endemic to the PCE and isolated populations from otherwise typical Amazonian taxa (e.g., *Crypturellus strigulosus*) are in the very verge of extinction.

The Atlantic Forest in Alagoas has been suffering from almost five centuries of massive deforestation to make way for sugarcane plantations and cattle ranching (Coimbra-Filho & Câmara, 1996; Silva & Tabarelli, 2000; Silveira et al., 2003a; Tabarelli et al., 2006). In addition, intense hunting and caging, along with forest devastation, have rendered many species either very scarce or extinct in the region (Teixeira, 1986; Collar et al., 1992; Silveira et al., 2003a, b, 2004). The state's coastal forests, the most affected, were nearly decimated (Coimbra-Filho & Câmara, 1996) and the few remaining fragments continue to suffer from logging and illegal hunting, caging and trafficking – pervasive issues in northeastern Brazil (Fernandes-Ferreira et al., 2012; Bezerra et al., 2012; Alves et al., 2013a, b). The resulting impoverishment of the region's avifauna is evidenced by some global extinctions, such as *Philydor novaesi* and *Cichlocolaptes mazarbarretti* (Barnett & Buzzetti, 2014; Lees et al., 2014; Pereira et al., 2014a), and local extirpations commented herein on the species accounts. Because the PCE supported a Pleistocene forest refuge (Carnaval & Moritz, 2008) where several lineages evolved (e.g., Maldonado-Coelho et al., 2013; Bocalini et al., 2021), many of such populations that have probably gone extinct in the PCE (e.g., *Crax cf. fasciolata*, *Thamnomanes caesioides* and *Sclerurus macconnelli*) had been isolated for thousands of years and may constitute separately evolving lineages that will never be properly known (Lees & Pimm, 2015). Bird taxa new to science continue to be discovered in the state's last remaining forest fragments, often already on the brink of extinction, such as the newly described *Trogon muriciensis* and *Megascops alagoensis* (Dantas et al., 2021; Dickens et al., 2021), rendering the PCE home to the greatest concentration of extinct and critically endangered birds in the Neotropics (Pereira et al., 2014a) or even in the world (RDL et al., in prep.).

The avifauna of Alagoas can be categorized into three major groups according to their biogeographical affinities: that of the seasonally dry forests of the state's interior (Caatinga birds), that of the rainforests (Atlantic

Forest birds), and that of the coastal and oceanic environments (shorebirds and seabirds). Despite its relatively small area, the state harbors eight out of the 13 bird taxa considered to be endemic or near-endemic to the Caatinga (Lima, 2021); and may harbor more since the state's interior has been considerably less surveyed than its rainforests. Potential species from this group include *Sakesphoroides cristatus* and *Megaxenops parnaguiae*, which are known to occur in nearby Pernambuco very close to the states' boundary. Alagoas also harbors 42 out of the 223 bird species considered to be endemic to the Atlantic Forest (*sensu* Vale et al., 2018). Remarkably, almost all bird taxa endemic to the PCE occur in the state, *Glaucidium mooreorum* being the only exception (Pereira et al., 2014a). Seabirds are probably the least known group and have been reported for the state in only a few studies (Olmos, 2002; Sousa et al., 2005; Almeida et al., 2019). Geolocation and isotope data show, however, that several pelagic seabird species cross the coast of northeastern Brazil (Zino et al., 2011; Ramírez et al., 2013; Pollet et al., 2014, 2019; Ramos et al., 2015, 2016, 2017; Zajková et al., 2017) and thus new records for the state may be expected from such birds. However, when accounting for some of these seabirds, it is important to distinguish core members of the state's avifauna from those species represented only by vagrants (Remsen, 1994). Vagrants on our list include *Chroicocephalus maculipennis* (Saunders, 1896), *Leucophaeus pipixcan* (Leal et al., 2013), *Pelecanus occidentalis* (Patrial et al., 2011), and possibly *Ardeola ralloides* and *Spheniscus magellanicus* (but see their accounts). Although these species are not core members of the state's avifauna, gathering and reporting such records remain essential to understanding their distributional and dispersal patterns.

We have presented here the first critical review of all available bird records for the state of Alagoas, wherein we have thoroughly considered each species' occurrence and removed those records that proved or seemed to be invalid. We hope that our secondary list, highlighting species that do not have documentary evidence for their occurrence in the state, will serve as a basis for future directional searches.

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APPENDIX 1

List of 520 bird species recorded in the state of Alagoas. Species of the secondary list (*i.e.*, those lacking documentary evidence) are presented within brackets to distinguish them from those of the primary list. The status of each species in the state is coded as resident (RE), seasonal visitor from the Northern Hemisphere (VN), seasonal visitor from the Southern Hemisphere (VS), vagrant (VA) or unknown (UN). Literature: 1 = Saunders (1896); 2 = Pinto (1938); 3 = Pinto (1946); 4 = Hellmayr & Conover (1948a); 5 = Hellmayr & Conover (1948b); 6 = Pinto (1952); 7 = Pinto (1954); 8 = Novaes (1961); 9 = Pinto & Camargo (1961); 10 = Pinto (1978); 11 = Teixeira & Gonzaga (1983a); 12 = Teixeira & Gonzaga (1983b); 13 = Teixeira & Gonzaga (1985); 14 = Teixeira *et al.* (1986); 15 = Teixeira (1987); 16 = Teixeira *et al.* (1987); 17 = Studer e Vielliard (1988); 18 = Teixeira *et al.* (1988); 19 = Teixeira & Luigi (1989); 20 = Teixeira *et al.* (1989); 21 = Studer & Vielliard (1990); 22 = Collar *et al.* (1992); 23 = Teixeira (1992); 24 = Forrester (1993); 25 = Nardelli (1993); 26 = Teixeira *et al.* (1993); 27 = Pacheco & Whitney (1995); 28 = Silva e Silva (1996); 29 = Sick (1997); 30 = Teixeira & Almeida (1997); 31 = Raposo *et al.* (1998); 32 = Schuchmann (1999); 33 = Olmos (2002); 34 = Roda (2003); 35 = Roda & Carlos (2003); 36 = Roda *et al.* (2003); 37 = Silveira *et al.* (2003a); 38 = Silveira *et al.* (2003b); 39 = Amaral & Silveira (2004); 40 = Silveira *et al.* (2004); 41 = Olmos *et al.* (2005); 42 = Sousa *et al.* (2005); 43 = Cabral *et al.* (2006); 44 = Carlos & Girão (2006); 45 = Roda & Pereira (2006); 46 = Mestre (2007); 47 = Lobo-Araújo *et al.* (2008); 48 = Minns *et al.* (2010); 49 = Araujo & Rodrigues (2011); 50 = Patrial *et al.* (2011); 51 = Lyra-Neves *et al.* (2012); 52 = Pereira *et al.* (2012); 53 = Leal *et al.* (2013); 54 = Lobo-Araújo *et al.* (2013); 55 = Barnett & Buzzetti (2014); 56 = Lees *et al.* (2014); 57 = Pereira *et al.* (2014a); 58 = Pereira *et al.* (2014b); 59 = Rêgo *et al.* (2014); 60 = Studer *et al.* (2015); 61 = Campos *et al.* (2018); 62 = Portes *et al.* (2018); 63 = Lima *et al.* (2020); 64 = Dantas *et al.* (2021); 65 = Dickens *et al.* (2021).

Taxon	Status	Museum collections	Archives	Literature
Tinamidae				
<i>Tinamus solitarius</i> (Vieillot, 1819)	RE	LACM, MNRJ, MZUSP, UFPE	ASEC, WA, XC	7, 10, 29, 37, 34, 39
<i>Crypturellus soui albigularis</i> (Brabourne & Chubb, 1914)	RE	MNRJ, MZUSP	ASEC, FNVJ, WA, XC	7, 37, 54, 62
<i>Crypturellus strigulosus</i> (Temminck, 1815)	RE	LACM, MNRJ, MZUSP, UFPE	ASEC, ML, WA	7, 10, 29, 37, 54
[<i>Crypturellus zabele</i> (Spix, 1825)]				34
<i>Crypturellus parvirostris</i> (Wagler, 1827)	RE	LACM, MHNAL, MNRJ, MZUSP	WA	7, 61, 49, 62
<i>Crypturellus tataupa lepidotus</i> (Swainson, 1837)	RE		WA	37, 49
<i>Rhynchotus rufescens rufescens</i> (Temminck, 1815)	RE	LACM, MHNAL, MNRJ, MZUSP	WA	7, 10, 54, 61, 23
<i>Nothura boraquira</i> (Spix, 1825)	RE	FMNH, LACM, MHNAL, MZUSP	WA, XC	7, 49
<i>Nothura maculosa cearensis</i> Naumburg, 1932	RE	MHNAL, MNRJ	WA	34
Anatidae				
<i>Dendrocygna bicolor</i> (Vieillot, 1816)	RE		ML, WA	
<i>Dendrocygna viduata</i> (Linnaeus, 1766)	RE	MNRJ, MZUSP	ML, WA	7, 43
<i>Dendrocygna autumnalis autumnalis</i> (Linnaeus, 1758)	RE		ML, WA	
<i>Cairina moschata</i> (Linnaeus, 1758)	RE		WA	
<i>Sarkidiornis sylvicola</i> Ihering & Ihering, 1907	RE		ML, WA	51
<i>Amazonetta brasiliensis brasiliensis</i> (Gmelin, 1789)	RE	MNRJ, MZUSP	ML, WA	7, 43, 60, 62
<i>Anas bahamensis bahamensis</i> Linnaeus, 1758	RE	MZUSP	ML, WA	7, 43
<i>Netta erythrophthalma erythrophthalma</i> (Wied, 1833)	RE	FMNH	ML, WA	4, 10, 29
<i>Nomonyx dominicus</i> (Linnaeus, 1766)	RE		WA	60
Cracidae				
<i>Penelope superciliaris alagoensis</i> Nardelli, 1993	RE	LACM, MNRJ	ASEC, ML, WA, XC	37, 48, 54, 60, 62
<i>Penelope jacucaca</i> Spix, 1825	RE	MNRJ	WA	29, 23
<i>Ortalis araucuan</i> (Spix, 1825)	RE	MNRJ	ASEC, FNVJ, ML, WA	34, 37, 60, 62
[<i>Crax cf. fasciolata</i> Spix, 1825]				6, 23
<i>Pauxi mitu</i> (Linnaeus, 1766)	RE	MNRJ, MPEG, MZUSP, USNM, WFWZ		6, 7, 10, 22, 25, 29, 40, 57
Odontophoridae				
<i>Odontophorus capueira plumbeicollis</i> Cory, 1915	RE	MNRJ, MZUSP	ASEC, FNVJ, ML, WA	9, 10, 34, 37, 60
Podicipedidae				
<i>Tachybaptus dominicus brachyrhynchus</i> (Chapman, 1899)	RE	MZUSP	ML, WA	34, 49, 60
<i>Podilymbus podiceps antarcticus</i> (Lesson, 1842)	RE	MNRJ	ML, WA	60
Columbidae				
<i>Columba livia livia</i> Gmelin, 1789	RE		ML, WA	
<i>Patagioenas speciosa</i> (Gmelin, 1789)	RE	LACM, MNRJ, MZUSP	ASEC, ML, WA, XC	7, 34, 37, 60, 61
<i>Patagioenas picazuro marginalis</i> (Naumburg, 1932)	RE		WA	49, 60
<i>Patagioenas cayennensis sylvestris</i> (Vieillot, 1818)	RE		WA	54, 60, 62
<i>Geotrygon montana montana</i> (Linnaeus, 1758)	RE	LACM, MNRJ, MZUSP	ML, WA	34, 60, 61
<i>Geotrygon violacea violacea</i> (Temminck, 1809)	RE	MZUSP		9, 26, 29
<i>Leptotila verreauxi approximans</i> Cory, 1917	RE	LACM, MHNAL, MZUSP, UFPE	ML, WA	7, 34, 49, 54, 60, 62
<i>Leptotila rufaxilla bahiae</i> Berlepsch, 1885	RE	FMNH, MZUSP, UFPE	ASEC, ML, WA, XC	34, 48, 54, 60, 61

Appendix 1. Continued.

Taxon	Status	Museum collections	Archives	Literature
<i>Zenaida auriculata noronha</i> Sharpe, 1890	RE		WA	49, 60
<i>Claravis pretiosa</i> (Ferrari-Perez, 1886)	RE	MNRJ, MZUSP	WA	7, 34
<i>Columbina passerina griseola</i> Spix, 1825	RE	MNRJ	WA	34, 43, 62
<i>Columbina minuta minuta</i> (Linnaeus, 1766)	RE	FMNH, LACM, MNRJ, MPEG, MZUSP, UFPE	ML, WA	7, 34, 43, 49, 60, 62
<i>Columbina talpacoti talpacoti</i> (Temminck, 1810)	RE	LACM, MHNAL, MNRJ, MZUSP	FNJV, ML, WA, XC	7, 34, 43, 60, 61, 62
<i>Columbina squammata squammata</i> (Lesson, 1831)	RE	FMNH, LACM, MNRJ, MPEG, MZUSP	FNJV, ML, WA	7, 49, 54, 60, 62
<i>Columbina picui strepitans</i> Spix, 1825	RE	FMNH, MHNAL, MNRJ, UFPE	ML, WA	49, 60
Cuculidae				
<i>Gura gura</i> (Gmelin, 1788)	RE	MNRJ, MZUSP	ML, WA	7, 34, 43, 49, 54, 60, 62
<i>Crotophaga major</i> Gmelin, 1788	RE		WA	
<i>Crotophaga ani</i> Linnaeus, 1758	RE	LACM, MHNAL, MNRJ, MZUSP	ASEC, FNJV, ML, WA	7, 34, 43, 49, 60, 61, 62
<i>Tapera naevia naevia</i> (Linnaeus, 1766)	RE	LACM, MNRJ, MZUSP	ML, WA	9, 34, 37, 49, 60, 61, 62
<i>Micrococcyx cinereus</i> (Vieillot, 1817)	UN		WA	
<i>Piaya cayana pallescens</i> (Cabanis & Heine, 1863)	RE	LACM, MHNAL, MNRJ, MZUSP	ASEC, FNJV, ML, WA, XC	7, 34, 37, 48, 60, 61, 62
<i>Coccyzus melacoryphus</i> Vieillot, 1817	UN	MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA	7, 37, 48, 49, 60
<i>Coccyzus americanus americanus</i> (Linnaeus, 1758)	RE		WA	
<i>Coccyzus euleri</i> Cabanis, 1873	UN	MNRJ	FNJV, WA	
Nyctibiidae				
<i>Nyctibius griseus griseus</i> (Gmelin, 1789)	RE	MZUSP	WA	7, 34, 37, 62
Caprimulgidae				
<i>Nyctiphrynus ocellatus ocellatus</i> (Tschudi, 1844)	RE	FMNH		34, 37
<i>Antrastomus rufus rufus</i> (Boddaert, 1783)	RE	MNRJ, MZUSP	ML, WA	7, 37, 54, 60, 62
<i>Lurocalis semitorquatus nattereri</i> (Temminck, 1822)	RE	MNRJ	ML, WA, XC	14, 34, 37, 48, 54, 60, 62
<i>Nyctidromus albigollis albigollis</i> (Gmelin, 1789)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 34, 37, 48, 54, 60, 61, 62
<i>Nyctidromus hirundinaceus cearae</i> (Cory, 1917)	RE	FMNH, MNRJ	WA	49
<i>Hydropsalis parvula</i> (Gould, 1837)	RE	MHNAL, MNRJ, MZUSP	WA	9, 60
<i>Hydropsalis torquata torquata</i> (Gmelin, 1789)	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	WA	7, 34, 37
<i>Nannochordeiles pusillus xerophilus</i> (Dickerman, 1988)	RE	MNRJ	FNJV, WA	62
<i>Podager nacunda nacunda</i> (Vieillot, 1817)	RE		WA	
<i>Chordeiles acutipennis acutipennis</i> (Hermann, 1783)	RE	MHNAL, MNRJ, UFPE	WA	14, 62
Apodidae				
<i>Cypseloides senex</i> (Temminck, 1826)	UN		WA	
[<i>Streptoprocne zonaris</i> (Shaw, 1796)]				60
<i>Chaetura cinereiventris cinereiventris</i> Sclater, 1862	RE	MNRJ	WA	
<i>Chaetura spinicaudus spinicaudus</i> (Temminck, 1839)	RE	MNRJ, MZUSP		7, 14, 29, 34, 37
<i>Chaetura meridionalis</i> Hellmayr, 1907	UN	MNRJ	WA, XC	34, 48
<i>Tachornis squamata squamata</i> (Cassin, 1853)	RE		ML, WA	60
<i>Panyptila cayannensis cayannensis</i> (Gmelin, 1789)	RE	MNRJ	WA, XC	18, 29, 34, 37, 54, 60
Trochilidae				
<i>Florisuga fusca</i> (Vieillot, 1817)	RE	LACM, MNRJ, MZUSP	ML, WA	7, 34, 37, 54, 60
<i>Glaucis hirsutus hirsutus</i> (Gmelin, 1788)	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	ML, WA	43, 60, 61
<i>Anopetia gounellei</i> (Boucard, 1891)	RE	MZUSP	WA	61
<i>Phaethornis ruber pygmaeus</i> (Spix, 1825)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP	ASEC, ML, WA, XC	7, 34, 37, 43, 48, 54, 60, 61, 62
<i>Phaethornis pretrei</i> (Lesson & Delattre, 1839)	RE	FMNH, LACM, MZUSP	ML, WA	9, 34, 54, 60, 61, 62
<i>Phaethornis margaritae camargoi</i> Grantsau, 1988	RE	MNRJ, MZUSP, UFPE	ML, WA, XC	16, 29, 37, 35, 48
[<i>Heliactin bilophus</i> (Temminck, 1820)]				29, 32
<i>Heliophryx auritus auriculatus</i> (Nordmann, 1835)	RE	MNRJ, MZUSP	FNJV, ML, WA	34, 37, 60
<i>Polytmus guainumbi thaumantias</i> (Linnaeus, 1766)	RE	LACM, MNRJ, MZUSP	WA	9, 34
<i>Chrysolampis mosquitus</i> (Linnaeus, 1758)	RE	MNRJ, MZUSP	FNJV, ML, WA, XC	7, 34, 49, 54, 60, 61
<i>Anthracothorax nigricollis</i> (Vieillot, 1817)	RE	MHNAL, MNRJ	ML, WA	16, 34, 37, 60, 61
[<i>Discosura longicaudus</i> (Gmelin, 1788)]				34
<i>Lophornis magnificus</i> (Vieillot, 1817)	RE	MNRJ	ML	16, 29, 34, 60
<i>Heliomaster squamosus</i> (Temminck, 1823)	RE	FMNH, MNRJ, UFPE	WA	49, 60
<i>Calliphlox amethystina</i> (Boddaert, 1783)	RE		WA	60
<i>Chlorostilbon lucidus pucherani</i> (Bourcier & Mulsant, 1848)	RE	MNRJ, MZUSP, UFPE	ML, WA	7, 34, 43, 49, 60
<i>Thalurania watertonii</i> (Bourcier, 1847)	RE	FMNH, LACM, LSUMZ, MNRJ, MZUSP, UFPE	FNJV, ML, WA, XC	7, 29, 34, 37, 48, 60, 61, 62
<i>Eupetomena macroura simoni</i> Hellmayr, 1929	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE, WFWZ	ML, WA	7, 34, 43, 49, 60, 62
<i>Aphantochroa cirrochloris</i> (Vieillot, 1818)	RE	MNRJ	ASEC, FNJV, WA, XC	34, 37, 60
<i>Chrysuronia versicolor versicolor</i> (Vieillot, 1818)	RE	MHNAL, MNRJ	FNJV, ML, WA	16, 34, 37, 60, 62
<i>Chrysuronia leucogaster bahiae</i> (Hartert, 1899)	RE	MHNAL, MNRJ	ASEC, ML, WA	54, 62

Appendix 1. Continued.

Taxon	Status	Museum collections	Archives	Literature
<i>Chionomesa fimbriata nigricauda</i> (Elliot, 1878)	RE	LACM, MNRJ, MZUSP	ML, WA, XC	7, 34, 37, 43, 60
<i>Hylocharis sapphirina</i> (Gmelin, 1788)	RE	MZUSP	ASEC, FNJV, ML, WA, XC	7, 29, 34, 37
<i>Chlorestes cyanus cyanus</i> (Vieillot, 1818)	RE	MNRJ	ASEC, ML, WA, XC	34, 37, 48, 60, 62
<i>Chlorestes notata notata</i> (Reich, 1793)	RE	FMNH, MNRJ, UFPE	ASEC, FNJV, ML, WA	34, 43, 61, 62
Aramidae				
<i>Aramus guarauna guarauna</i> (Linnaeus, 1766)	RE	LACM, MNRJ, MZUSP	ML, WA	9, 37, 60
Rallidae				
<i>Rallus longirostris crassirostris</i> Lawrence, 1871	RE		WA	
<i>Porphyrio martinica</i> (Linnaeus, 1766)	RE	LACM, MHNAL, MNRJ, MZUSP	ML, WA, XC	7, 37, 43, 48, 49, 60, 62
<i>Rufirallus viridis viridis</i> (Stadius Muller, 1776)	RE	LACM, MZUSP	ASEC, FNJV, WA, XC	7, 34, 37, 60, 62
<i>Laterallus flaviventer flaviventer</i> (Boddaert, 1783)	RE	MNRJ	WA	58
<i>Laterallus melanophaius melanophaius</i> (Vieillot, 1819)	RE	MNRJ, MZUSP	FNJV, ML, WA, XC	7, 37, 48, 60, 62
<i>Laterallus exilis</i> (Temminck, 1831)	RE		WA	34, 60
<i>Mustelirallus albicollis albicollis</i> (Vieillot, 1819)	RE	LACM, MNRJ, MZUSP	FNJV, ML, WA, XC	7, 34, 60, 62
<i>Neocrex erythrops olivascens</i> Chubb, 1917	RE		FNJV, WA	60
<i>Pardirallus maculatus maculatus</i> (Boddaert, 1783)	RE	LACM, MZUSP	WA	9
<i>Pardirallus nigricans nigricans</i> (Vieillot, 1819)	RE	LACM, MZUSP, ZUEC	FNJV, WA	7, 37, 48, 60
<i>Amaurolimnas concolor castaneus</i> (Pucheran, 1851)	RE	MNRJ	WA	14, 16, 34
<i>Aramides ypecaha</i> (Vieillot, 1819)	RE		WA	
<i>Aramides mangle</i> (Spix, 1825)	RE	MNRJ	WA	20, 62
<i>Aramides cajaneus cajaneus</i> (Stadius Muller, 1776)	RE	MHNAL, MZUSP	FNJV, ML, WA	7, 37, 54, 60, 62
<i>Porphyriops melanops melanops</i> (Vieillot, 1819)	RE		ML, WA	58
<i>Gallinula galeata galeata</i> (Lichtenstein, 1818)	RE	MNRJ, MZUSP	ML, WA	7, 37, 60
Charadriidae				
<i>Pluvialis dominica</i> (Stadius Muller, 1776)	VN		WA	
<i>Pluvialis squatarola cynosuroides</i> (Thayer & Bangs, 1914)	VN	MHNAL, MNRJ	ML, WA	18, 43, 62
<i>Vanellus cayanus</i> (Latham, 1790)	RE		WA	
<i>Vanellus chilensis lampronotus</i> (Wagler, 1827)	RE	MNRJ	ML, WA	34, 49, 60, 61, 62
<i>Charadrius semipalmatus</i> Bonaparte, 1825	VN	MHNAL	ML, WA	18, 43, 62
<i>Charadrius wilsonia crassirostris</i> Spix, 1825	RE	MHNAL, MNRJ	WA	43
<i>Charadrius collaris</i> Vieillot, 1818	RE	MHNAL, MNRJ	WA	34, 43
Haematopodidae				
[<i>Haematopus palliatus</i> Temminck, 1820]				18, 43
Recurvirostridae				
<i>Himantopus mexicanus</i> (Stadius Muller, 1776)	RE		ML, WA	34
Scolopaciidae				
<i>Numenius hudsonicus</i> Latham, 1790	VN		WA	43
<i>Limosa lapponica lapponica</i> (Linnaeus, 1758)	VN		WA	58
<i>Arenaria interpres morinella</i> (Linnaeus, 1766)	VN	MHNAL, MNRJ	ML, WA	43, 62
[<i>Calidris canutus</i> (Linnaeus, 1758)]				
<i>Calidris alba rubida</i> (Gmelin, 1789)	VN	MHNAL, MNRJ	ML, WA	18, 43, 62
<i>Calidris minutilla</i> (Vieillot, 1819)	VN		WA	62
<i>Calidris fuscicollis</i> (Vieillot, 1819)	VN	MNRJ	WA	
<i>Calidris melanotos</i> (Vieillot, 1819)	VN		WA	18
<i>Calidris pusilla</i> (Linnaeus, 1766)	VN	MHNAL, MNRJ	WA	18, 43
<i>Limnodromus griseus griseus</i> (Gmelin, 1789)	VN		WA	43
<i>Gallinago undulata gigantea</i> (Temminck, 1826)	RE	MNRJ		
<i>Gallinago paraguayiae paraguayiae</i> (Vieillot, 1816)	RE	LACM, MZUSP	FNJV, WA	7, 34
<i>Actitis macularius</i> (Linnaeus, 1766)	VN	MNRJ	ML, WA	43, 62
<i>Tringa solitaria solitaria</i> Wilson, 1813	VN	LACM, MHNAL, MZUSP	ML, WA, XC	7, 34
<i>Tringa melanoleuca</i> (Gmelin, 1789)	VN		WA	43, 62
<i>Tringa semipalmata</i> (Gmelin, 1789)	VN		WA	43, 62
<i>Tringa flavipes</i> (Gmelin, 1789)	VN		WA	
Jacaniidae				
<i>Jacana jacana jacana</i> (Linnaeus, 1766)	RE	LACM, MHNAL, MNRJ, MZUSP	ML, WA	7, 34, 43, 49, 54, 60, 62
Stercorariidae				
<i>Stercorarius maccormicki</i> Saunders, 1893	VS		ML	33, 42
[<i>Stercorarius antarcticus</i> (Lesson, 1831)]	VS			18, 33
<i>Stercorarius pomarinus</i> (Temminck, 1815)	VN	MHNAL		
<i>Stercorarius parasiticus</i> (Linnaeus, 1758)	VN	MHNAL, MNRJ	ML, WA	29, 33, 42, 43

Appendix 1. Continued.

Taxon	Status	Museum collections	Archives	Literature
Laridae				
<i>Chroicocephalus maculipennis</i> (Lichtenstein, 1823)	VA	MNRJ, NHMUK		1, 2, 5, 10, 29
<i>Chroicocephalus cirrocephalus cirrocephalus</i> (Vieillot, 1818)	RE		WA	53
<i>Leucophaeus atricilla atricilla</i> (Linnaeus, 1758)	VN		WA	
<i>Leucophaeus pipixcan</i> (Wagler, 1831)	VA		WA	53
<i>Larus dominicanus dominicanus</i> Lichtenstein, 1823	UN		WA	
<i>Anous stolidus stolidus</i> (Linnaeus, 1758)	UN	MHNAL	WA	42
<i>Rynchops niger intercedens</i> Saunders, 1895	UN		WA	
<i>Onychoprion fuscatus fuscatus</i> (Linnaeus, 1766)	UN	MHNAL	WA	
[<i>Sternula antillarum</i> Lesson, 1847]				33, 43
<i>Sternula supercilialis</i> (Vieillot, 1819)	UN		ML, WA	43
<i>Sterna hirundo hirundo</i> Linnaeus, 1758	VN	MNRJ	WA	42, 43, 62
<i>Sterna dougallii dougallii</i> Montagu, 1813	VN		WA	
<i>Sterna paradisaea</i> Pontoppidan, 1763	VN		WA	
<i>Thalasseus acuffavidus</i> (Cabot, 1847)	VN	MNRJ	WA	18, 33, 42, 43
Spheniscidae				
<i>Spheniscus magellanicus</i> (Forster, 1781)	VA	MHNAL		18, 29
Diomedidae				
<i>Thalassarche chlororhynchos</i> (Gmelin, 1789)	VS	MNRJ		20, 42
[<i>Thalassarche melanophris</i> (Temminck, 1828)]				29, 33, 42
Procellariidae				
<i>Procellaria aequinoctialis</i> Linnaeus, 1758	VS			
<i>Calonectris borealis</i> (Cory, 1881)	VN	MHNAL, MNRJ, UFPE		33, 42, 43
<i>Ardenna grisea</i> (Gmelin, 1789)	VS	MHNAL		42
<i>Ardenna gravis</i> (O'Reilly, 1818)	VS	MHNAL, MNRJ, UFPE		42, 62
<i>Puffinus puffinus puffinus</i> (Brünnich, 1764)	VN		ML, WA	42
Ciconiidae				
<i>Mycteria americana</i> Linnaeus, 1758	VS		WA	
Fregatidae				
<i>Fregata magnificens</i> Mathews, 1914	RE	MNRJ	ML, WA	42, 43, 62
Sulidae				
<i>Sula dactylatra dactylatra</i> Lesson, 1831	RE	MNRJ	WA	
<i>Sula sula sula</i> (Linnaeus, 1766)	RE		ML	
Anhinga				
<i>Anhinga anhinga anhinga</i> (Linnaeus, 1766)	RE		WA	34
Phalacrocoracidae				
<i>Nannopterum brasiliense brasiliense</i> (Gmelin, 1789)	RE	FMNH, UFPE	WA	
Pelecanidae				
<i>Pelecanus occidentalis carolinensis</i> Gmelin, 1789	VA		WA	50
Ardeidae				
<i>Tigrisoma lineatum marmoratum</i> (Vieillot, 1817)	RE	MHNAL, MNRJ, MZUSP	ML, WA, XC	7, 37, 48, 54, 60, 62
<i>Cochlearius cochlearius cochlearius</i> (Linnaeus, 1766)	RE	MHNAL		
<i>Botaurus pinnatus pinnatus</i> (Wagler, 1829)	RE		ML, WA	
<i>Ixobrychus exilis erythromelas</i> (Vieillot, 1817)	RE	MHNAL, MNRJ, MZUSP	WA	7, 34
<i>Ixobrychus invalucris</i> (Vieillot, 1823)	RE	MNRJ	WA	
<i>Nycticorax nycticorax hoactli</i> (Gmelin, 1789)	RE		WA	34
<i>Nyctanassa violacea cayennensis</i> (Gmelin, 1789)	RE		ML, WA	
<i>Butorides striata striata</i> (Linnaeus, 1758)	RE	LACM, MNRJ, MZUSP	ML, WA	7, 49, 54, 60, 62
[<i>Ardeola ralloides</i> (Scopoli, 1769)]				
<i>Bubulcus ibis ibis</i> (Linnaeus, 1758)	RE	MNRJ	ML, WA	16, 34, 43, 49, 60, 62
<i>Ardea cocoi</i> Linnaeus, 1766	RE		WA	
<i>Ardea alba egretta</i> Gmelin, 1789	RE		WA	34, 43, 49, 60, 62
<i>Pilherodius pileatus</i> (Boddaert, 1783)	RE		ML, WA	58
<i>Egretta thula thula</i> (Molina, 1782)	RE		FNJV, ML, WA	34, 43, 49, 62
<i>Egretta caerulea</i> (Linnaeus, 1758)	RE		WA	52, 62
Threskiornithidae				
<i>Phimosus infuscatus nudifrons</i> (Spix, 1825)	RE		WA	
<i>Platalea ajaja</i> Linnaeus, 1758	UN		WA	58
Cathartidae				
<i>Sarcophaga papa</i> (Linnaeus, 1758)	RE		WA	

Appendix 1. Continued.

Taxon	Status	Museum collections	Archives	Literature
<i>Coragyps atratus brasiliensis</i> (Bonaparte, 1850)	RE	MNRJ	WA	34, 43, 49, 60, 61, 62
<i>Cathartes aura ruficollis</i> Spix, 1824	RE	MZUSP	ML, WA	7, 34, 43, 49, 60, 61, 62
<i>Cathartes burrovianus urubutinga</i> Pelzel, 1861	RE	MNRJ	ML, WA	14, 43, 49, 60, 61, 62
Pandionidae				
<i>Pandion haliaetus carolinensis</i> (Gmelin, 1788)	VN		WA	29
Accipitridae				
<i>Gampsonyx swainsonii swainsonii</i> Vigors, 1825	RE	FMNH, UFPE	ML, WA	60
<i>Elanus leucurus leucurus</i> (Vieillot, 1818)	RE	LACM, MNRJ	ML, WA	34, 49, 60, 62
<i>Chondrohierax uncinatus uncinatus</i> (Temminck, 1822)	RE		WA	
<i>Leptodon forbesi</i> (Swann, 1922)	RE	MNRJ, MZUSP	ASEC, ML, WA, XC	16, 37, 35, 45, 48, 57, 60, 61, 62
<i>Elanoides forficatus yetapa</i> (Vieillot, 1818)	UN		WA	45
<i>Spizaetus tyrannus tyrannus</i> (Wied, 1820)	RE	MNRJ	FNJV, ML, WA, XC	14, 35, 37, 44, 45
[<i>Spizaetus ornatus</i> (Daudin, 1800)]				3, 23, 44
<i>Rostrhamus sociabilis sociabilis</i> (Vieillot, 1817)	RE	MHNAL, MNRJ, MZUSP	ML, WA	14, 34, 43
<i>Harpagus bidentatus bidentatus</i> (Latham, 1790)	RE		WA	34
<i>Ictinia plumbea</i> (Gmelin, 1788)	VS	MZUSP	WA	9, 34, 45
<i>Accipiter striatus erythronemius</i> (Kaup, 1850)	RE		WA	58
<i>Accipiter bicolor pileatus</i> (Temminck, 1823)	RE	MZUSP	ASEC, WA	7, 34, 45
<i>Geranoospiza caerulescens gracilis</i> (Temminck, 1821)	RE	MNRJ, MZUSP	ASEC, ML, WA	34, 45, 48, 60, 61, 62
<i>Buteogallus anthracinus anthracinus</i> (Deppe, 1830)	RE		FNJV, ML, WA	54, 62
<i>Heterospizias meridionalis</i> (Latham, 1790)	RE	MNRJ	WA	
<i>Urubitinga urubitinga urubitinga</i> (Gmelin, 1788)	RE		WA	60, 62
<i>Rupornis magnirostris nattereri</i> (Slater & Salvin, 1869)	RE	LACM, MHNAL, MNRJ, MZUSP	ML, WA	7, 34, 43, 49, 60, 62
<i>Parabuteo unicinctus unicinctus</i> (Temminck, 1824)	RE		WA	52
<i>Geranoaetus albicaudatus albicaudatus</i> (Vieillot, 1816)	RE		ML, WA	43, 54, 60, 61
<i>Geranoaetus melanoleucus melanoleucus</i> (Vieillot, 1819)	RE		WA	18, 60
<i>Pseudastur polionotus</i> (Kaup, 1847)	RE		FNJV, WA, XC	10, 29, 34, 45, 48, 60
<i>Buteo nitidus pallidus</i> (Todd, 1915)	RE	MNRJ	ML, WA	34, 37, 45, 54, 60, 62
<i>Buteo brachyurus brachyurus</i> Vieillot, 1816	RE		ML, WA	34, 43, 45, 54, 60, 61, 62
<i>Buteo albonotatus</i> Kaup, 1847	RE		ASEC, ML, WA	16, 34, 45, 54, 60, 61, 62
Tytonidae				
<i>Tyto furcata tuidara</i> (Gray, 1828)	RE	MHNAL	WA	34, 54, 60, 62
Strigidae				
<i>Megascops choliba decussatus</i> (Lichtenstein, 1823)	RE	MNRJ, MZUSP	FNJV, WA	34, 37, 45, 60, 62
<i>Megascops alagoensis</i> Dantas et al., 2021	RE	MPEG, MZUSP	ASEC, ML, XC, WA	34, 45, 64
<i>Pulsatrix perspicillata perspicillata</i> (Latham, 1790)	RE		ML, WA, XC	34, 37, 45, 48, 60
[<i>Bubo virginianus</i> (Gmelin, 1788)]				16
<i>Strix virgata borelliana</i> (Bertoni, 1901)	RE		WA	34
<i>Glaucidium brasilianum brasilianum</i> (Gmelin, 1788)	RE	MHNAL, MNRJ, UFPE	ASEC, FNJV, ML, WA	34, 37, 45, 48, 54, 60, 62
<i>Athene cunicularia grallaria</i> (Temminck, 1822)	RE	FMNH, MNRJ, UFPE	ML, WA	43, 49, 60, 62
<i>Aegolius harrisii iheringi</i> (Sharpe, 1899)	RE		WA	29, 58
<i>Asio clamator clamator</i> (Vieillot, 1808)	RE	MHNAL, MNRJ	WA	
Trogonidae				
<i>Trogon viridis viridis</i> Linnaeus, 1766	RE	LACM, MZUSP	ASEC, ML, WA, XC	7, 10, 34, 37, 48
<i>Trogon curucui curucui</i> Linnaeus, 1766	RE	MNRJ	ASEC, FNJV, ML, WA	34, 37, 54, 62
<i>Trogon muriciensis</i> Dickens et al., 2021	RE	MNRJ	ASEC, ML, WA, XC	14, 29, 34, 48, 65
<i>Trogon collaris eytoni</i> (Frazer, 1857)	RE	MNRJ		14
Momotidae				
<i>Momotus momota marcgravianus</i> Pinto & Camargo, 1961	RE	LACM, MNRJ, MZUSP	ASEC, ML, WA	7, 29, 34, 37, 48, 61, 62
Alcedinidae				
<i>Megascops torquata torquata</i> (Linnaeus, 1766)	RE	UFPE	FNJV, ML, WA	34, 43, 54, 49, 60, 62
<i>Chloroceryle amazona</i> (Latham, 1790)	RE	MZUSP, UFPE	WA	7, 34, 43, 60, 62
<i>Chloroceryle americana americana</i> (Gmelin, 1788)	RE	LACM, MNRJ, MZUSP	ML, WA	7, 34, 43, 49, 60, 62
Galbulidae				
<i>Galbula ruficauda rufoviridis</i> Cabanis, 1851	RE	LACM, MHNAL, MNRJ, MPEG, MZUSP	FNJV, ML, WA	7, 34, 37, 54, 60, 61, 62
Bucconidae				
<i>Chelidoptera tenebrosa tenebrosa</i> (Pallas, 1782)	RE	LACM, MZUSP		9, 10, 34
<i>Monasa nigrifrons nigrifrons</i> (Spix, 1824)	RE	MNRJ	WA	18
<i>Nystalus maculatus</i> (Gmelin, 1788)	RE	FMNH, LACM, MHNAL, MNRJ, MPEG, MZUSP, UFPE	FNJV, ML, WA	7, 34, 54, 49, 60, 62
Ramphastidae				

Appendix 1. Continued.

Taxon	Status	Museum collections	Archives	Literature
<i>Ramphastos vitellinus ariel</i> Vigors, 1826	RE	LACM, MNRJ, MZUSP	ASEC, FNUJ, ML, WA, XC	7, 29, 34, 37, 48
<i>Pteroglossus inscriptus inscriptus</i> Swainson, 1822	RE	MNRJ	ASEC, ML, WA	27, 29, 34, 37, 54, 60
<i>Pteroglossus aracari aracari</i> (Linnaeus, 1758)	RE	LACM, MNRJ, MZUSP	ASEC, ML, WA, XC	7, 34, 37, 48, 61
Picidae				
<i>Picumnus pernambucensis</i> Zimmer, 1947	RE	FMNH, LACM, MNRJ, MPEG, MZUSP, UFPE	ASEC, FNUJ, ML, WA, XC	9, 10, 29, 34, 37, 48, 54, 59, 60, 61
<i>Picumnus limae</i> Sneath, 1924	RE	LACM, MNRJ, MZUSP	FNUJ, ML, WA	29, 34, 36, 37, 43, 48, 60, 63
<i>Melanerpes candidus</i> (Otto, 1796)	RE		WA	
<i>Veniliornis affinis ruficeps</i> (Spix, 1824)	RE	FMNH, LACM, MNRJ, MPEG, MZUSP, UFPE	ASEC, ML, WA, XC	7, 34, 37, 48, 60, 61, 62
<i>Veniliornis passerinus taenionotus</i> (Reichenbach, 1854)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, ML, WA	7, 34, 37, 43, 49, 60, 61
<i>Campophilus melanoleucus cearae</i> (Cory, 1915)	RE	MNRJ	WA	54, 60
<i>Dryocopus lineatus lineatus</i> (Linnaeus, 1766)	RE	LACM, MNRJ, MZUSP	ASEC, ML, WA	9, 34, 37, 60, 62
<i>Celeus flavus subflavus</i> Sclater & Salvin, 1877	RE	LACM, MNRJ, MZUSP		7, 10, 29
<i>Celeus ochraceus</i> (Spix, 1824)	RE	LACM, MZUSP	ML, WA	9, 9
<i>Picus flavigula erythropis</i> (Vieillot, 1818)	RE	MNRJ, MZUSP	ML, WA, XC	7, 34, 37, 48
<i>Colaptes melanochloros nattereri</i> (Malherbe, 1845)	RE	LACM, MNRJ, MZUSP	ML, WA	9, 49, 62
<i>Colaptes campestris campestris</i> (Vieillot, 1818)	RE		ML, WA	
Cariamidae				
<i>Cariama cristata</i> (Linnaeus, 1766)	RE	MZUSP	WA	49, 60
Falconidae				
<i>Herpotheres cachinnans cachinnans</i> (Linnaeus, 1758)	RE		ASEC, FNUJ, ML, WA	34, 37, 45, 48, 49, 60, 61, 62
<i>Micrastur ruficollis ruficollis</i> (Vieillot, 1817)	RE	LACM	ASEC, FNUJ, ML	34, 37, 45, 61
<i>Micrastur semitorquatus semitorquatus</i> (Vieillot, 1817)	RE		ML, WA, XC	34, 37, 45
<i>Caracara plancus</i> (Miller, 1777)	RE		ASEC, ML, WA, XC	34, 37, 43, 60, 61, 62
<i>Milvago chimachima chimachima</i> (Vieillot, 1816)	RE		ML, WA, XC	34, 37, 43, 49, 60, 61, 62
<i>Falco sparverius cearae</i> (Cory, 1915)	RE	MHNAL, MNRJ	ML, WA	16, 34, 37, 43, 49, 60, 62
[<i>Falco ruficularis</i> Daudin, 1800]				16, 45
<i>Falco femoralis femoralis</i> Temminck, 1822	RE	LACM, MZUSP	WA	9, 60, 62
<i>Falco peregrinus tundrius</i> White, 1968	VN	MHNAL	ML, WA	16, 28, 46
Psittacidae				
<i>Touit surdus</i> (Kuhl, 1820)	RE	LACM, MNRJ, MZUSP	ASEC, ML, WA	7, 22, 34, 36, 48, 57, 60, 62
<i>Brotogeris tirica</i> (Gmelin, 1788)	RE	FMNH, MNRJ, UFPE	ASEC, WA	14, 29, 34, 37, 62
<i>Pionus maximiliani maximiliani</i> (Kuhl, 1820)	RE	LACM, MNRJ	WA	29, 54
<i>Pionus reichenowi</i> Heine, 1844	RE	MNRJ, MZUSP	ASEC, ML, WA, XC	7, 10, 34, 37, 48, 54
<i>Amazona rhodocorytha</i> (Salvadori, 1890)	RE	LACM, MNRJ, MZUSP		9, 10, 22, 29
<i>Amazona aestiva aestiva</i> (Linnaeus, 1758)	RE		WA	
<i>Amazona amazonica</i> (Linnaeus, 1766)	RE		WA	52, 54, 62
<i>Forpus xanthopterygius flavissimus</i> Hellmayr, 1929	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP	FNUJ, ML, WA	2, 7, 10, 34, 37, 43, 49, 60, 62
[<i>Pyrrhura griseipectus</i> Salvadori, 1900]				18, 29, 41
<i>Eupsittula aurea</i> (Gmelin, 1788)	RE		WA	34, 37, 54, 62
<i>Eupsittula cactorum caixana</i> (Spix, 1824)	RE		WA	
<i>Aratinga jandaya</i> (Gmelin, 1788)	RE	LACM, MZUSP	ASEC, ML, WA, XC	7, 34, 37, 43, 48
<i>Aratinga auricapillus auricapillus</i> (Kuhl, 1820)	RE		WA	
<i>Primolius maracana</i> (Vieillot, 1816)	RE		WA	
[<i>Thectocercus acuticaudatus</i> (Vieillot, 1818)]				20
<i>Diopsittaca nobilis cumanensis</i> (Lichtenstein, 1823)	RE	MNRJ, MZUSP	ASEC, FNUJ, ML, WA, XC	14, 34, 37, 48, 60, 61, 62
Thamnophilidae				
<i>Myrmorchilus strigilatus strigilatus</i> (Wied, 1831)	RE	MZUSP	WA	7, 49
<i>Terenura sicki</i> Teixeira & Gonzaga, 1983	RE	MNRJ	ASEC, FNUJ, ML, WA, XC	12, 18, 22, 29, 34, 36, 37, 48, 57, 60
<i>Myrmotherula axillaris luctuosa</i> Pelzel, 1868	RE	FMNH, LACM, MHNAL, MNRJ, MPEG, MZUSP, UFPE	ASEC, FNUJ, ML, WA, XC	7, 34, 37, 48, 61, 62
<i>Myrmotherula snowi</i> Teixeira & Gonzaga, 1985	RE	MNRJ	ASEC, FNUJ, ML, WA, XC	13, 22, 29, 34, 37, 48, 57
<i>Formicivora grisea grisea</i> (Boddaert, 1783)	RE	LACM, MHNAL, MNRJ, MZUSP	ASEC, FNUJ, ML, WA, XC	7, 34, 37, 48, 60, 61, 62
<i>Formicivora melanogaster bahiae</i> Hellmayr, 1909	RE	FMNH, MHNAL, MNRJ, MZUSP, UFPE	WA	7, 10, 49
<i>Formicivora rufa rufa</i> (Wied, 1831)	RE		WA	
<i>Thamnomanes caesius caesius</i> (Temminck, 1820)	RE	MNRJ, MZUSP	ASEC, ML, WA, XC	7, 34, 48
<i>Dysithamnus mentalis emiliae</i> Hellmayr, 1912	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, FNUJ, ML, WA, XC	7, 34, 37, 48, 60, 61
<i>Herpsilochmus frater</i> Sclater & Salvin, 1880	RE	FMNH, MNRJ, MZUSP, UFPE, UFRN	ASEC, FNUJ, ML, WA, XC	9, 10, 34, 37, 48, 54, 61
<i>Herpsilochmus atricapillus</i> Pelzel, 1868	RE	LACM, MNRJ, MZUSP	ASEC, FNUJ, ML, WA	9, 34, 60, 62
<i>Thamnophilus capistratus</i> Lesson, 1840	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	WA	7, 34, 37, 49
<i>Thamnophilus torquatus</i> Swainson, 1825	RE	LACM, MHNAL, MNRJ, MZUSP	ASEC, ML, WA, XC	7, 8, 34, 37, 60, 62
<i>Thamnophilus palliatus palliatus</i> (Lichtenstein, 1823)	RE	LACM, MNRJ, MPEG, MZUSP	ASEC, ML, WA, XC	9, 8, 34, 48, 60

Appendix 1. Continued.

Taxon	Status	Museum collections	Archives	Literature
<i>Thamnophilus pelzelni</i> Hellmayr, 1924	RE	LACM, MHNAL, MNRJ, MZUSP	ASEC, FNVJ, ML, WA	7, 10, 34, 54, 62
<i>Thamnophilus caeruleus pernambucensis</i> Naumburg, 1937	RE	LACM, MNRJ, MZUSP	ASEC, FNVJ, ML, WA, XC	7, 10, 34, 37, 48, 54, 60, 62
<i>Thamnophilus aethiops distans</i> Pinto, 1954	RE	FMNH, LACM, MHNAL, MNRJ, MPEG, MZUSP, UFPE	ASEC, ML, WA, XC	7, 10, 29, 34, 37, 48, 61
<i>Taraba major stagurus</i> (Lichtenstein, 1823)	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	ML, WA	7, 34, 37, 43, 48, 54, 60, 62
<i>Hypodaleus guttatus leucogaster</i> Pinto, 1932	RE		WA	27, 29
<i>Radinopsyche sellowi</i> Whitney & Pacheco, 2000	RE		WA	58
<i>Myrmoderus ruficauda soror</i> (Pinto, 1940)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, FNVJ, ML, WA, XC	7, 10, 22, 34, 36, 37, 48, 57, 60, 61
<i>Pyriglena pernambucensis</i> Zimmer, 1931	RE	FMNH, LACM, MHNAL, MZUSP, UFPE	ASEC, FNVJ, ML, WA, XC	7, 10, 29, 34, 37, 48, 60, 61, 62
<i>Cercomacroides laeta sabinoi</i> (Pinto, 1939)	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	ASEC, FNVJ, ML, WA, XC	9, 10, 29, 34, 35, 37, 48, 62
<i>Drymophila squamata</i> ssp. (Lichtenstein, 1823)	RE	MNRJ	ASEC, FNVJ, ML, WA, XC	14, 29, 34, 48
Conopophagidae				
<i>Conopophaga melanops nigrifrons</i> Pinto, 1954	RE	FMNH, LACM, MHNAL, MNRJ, MPEG, MZUSP, UFPE	ASEC, FNVJ, ML, WA, XC	7, 9, 10, 37, 48, 54, 60
<i>Conopophaga cearae</i> Cory, 1916	RE	MNRJ, MZUSP	ASEC, ML, WA	9, 10, 48, 54, 60
Formicariidae				
<i>Formicarius colma ruficeps</i> (Spix, 1824)	RE	LACM, MNRJ, MZUSP	ASEC, ML, WA	7, 34
<i>Chamaeza campanisona campanisona</i> (Lichtenstein, 1823)	RE	MNRJ	FNVJ, WA	18, 48, 60
Scleruridae				
<i>Sclerurus macconnelli bahiae</i> Chubb, 1919	RE	MZUSP		9, 29
<i>Sclerurus caudacutus calligineus</i> Pinto, 1954	RE	LACM, MNRJ, MZUSP	ASEC, ML, WA, XC	7, 10, 29, 34, 37, 48
Dendrocolaptidae				
<i>Sittasomus griseicapillus reiseri</i> Hellmayr, 1917	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	ASEC, ML, WA, XC	7, 9, 34, 37, 54, 60, 62
<i>Dendrocincla taunayi</i> Pinto, 1939	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, ML, WA, XC	7, 10, 29, 34, 37, 48, 54
<i>Dendrocolaptes medius</i> Todd, 1920	RE	LACM, MNRJ, MZUSP	ML, WA, XC	7, 29, 34, 48
<i>Dendrocolaptes platyrostris intermedius</i> Berlepsch, 1883	RE	LACM, MZUSP	ML, WA, XC	48, 52, 60
<i>Xiphorhynchus atlanticus</i> (Cory, 1916)	RE	FMNH, LACM, MNRJ, MPEG, MZUSP, UFPE	FNVJ, ML, WA, XC	7, 10, 34, 48, 37, 60
<i>Xiphorhynchus guttatus guttatus</i> (Lichtenstein, 1820)	RE	LACM, MHNAL, MNRJ, MZUSP	ASEC, FNVJ, ML, WA, XC	7, 34, 37, 48, 54, 60
<i>Dendroplex picus picus</i> (Gmelin, 1788)	RE	FMNH, LACM, MNRJ, MZUSP	ASEC, FNVJ, ML, WA, XC	7, 34, 37, 48, 54, 60, 62
<i>Campylorhynchus trochilirostris trochilirostris</i> (Lichtenstein, 1820)	RE	MNRJ, MZUSP	WA	7, 34
<i>Campylorhynchus trochilirostris major</i> Ridgway, 1911				
<i>Lepidocolaptes angustirostris</i> (Vieillot, 1818)	RE	FMNH, MHNAL, MNRJ, MZUSP, UFPE	ML, WA	7, 10, 49, 60
Xenopidae				
<i>Xenops minutus alagoanus</i> Pinto, 1954	RE	LACM, MHNAL, MNRJ, MPEG, MZUSP, UFPE	ASEC, FNVJ, ML, WA, XC	7, 10, 34, 37, 48, 54, 60
<i>Xenops rutilans rutilans</i> Temminck, 1821	RE	FMNH, MNRJ, MZUSP	ASEC, ML, WA, XC	9, 34, 48, 60
Furnariidae				
<i>Furnarius figulus figulus</i> (Lichtenstein, 1823)	RE	FMNH, LACM, MNRJ, MPEG, MZUSP	FNVJ, ML, WA, XC	7, 21, 29, 34, 43, 48, 60
<i>Furnarius leucopus assimilis</i> Cabanis & Heine, 1859	RE	LACM, MHNAL, MZUSP, UFPE	ML, WA	7, 49, 60
<i>Furnarius rufus albogularis</i> (Spix, 1824)	RE	MNRJ	WA	16
<i>Cichlocolaptes mazarbarnetti</i> Barnett & Buzzetti, 2014	RE	MNRJ	ML, XC	48, 55, 57
<i>Philydor novaesi</i> Teixeira & Gonzaga, 1983	RE	MNRJ		11, 16, 22, 29, 34, 48, 55, 56, 57
<i>Automolus lammi</i> Zimmer, 1947	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	ASEC, FNVJ, ML, WA, XC	7, 9, 10, 34, 37, 48
<i>Phacellodomus rufifrons specularis</i> Hellmayr, 1925	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	FNVJ, ML, WA, XC	7, 10, 34, 37, 49, 54
<i>Cranioleuca semicnerea semicnerea</i> (Reichenbach, 1853)	RE	MNRJ, MZUSP	ASEC, FNVJ, ML, WA, XC	18, 19, 29, 34
<i>Pseudoseisura cristata</i> (Spix, 1824)	RE	MNRJ, MPEG	ML, WA	49
<i>Certhiopsis cinnamomeus cearensis</i> (Cory, 1916)	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	FNVJ, ML, WA, XC	7, 10, 34, 37, 48
<i>Synallaxis scutata scutata</i> Sclater, 1859	RE	MNRJ, MZUSP, ZUEC	ASEC, FNVJ, WA	7, 60
<i>Synallaxis hellmayri</i> Reiser, 1905	RE	FMNH, UFPE	ML, WA	
<i>Synallaxis infuscata</i> Pinto, 1950	RE	LACM, MNRJ, MZUSP, ZUEC	ASEC, FNVJ, ML, WA, XC	7, 10, 22, 29, 34, 36, 37, 48, 60
<i>Synallaxis hypospodia</i> Sclater, 1874	RE	LACM, MNRJ	FNVJ, ML	29
<i>Synallaxis albescens albescens</i> Temminck, 1823	RE	MNRJ	WA	34, 49, 60
<i>Synallaxis frontalis</i> Pelzel, 1859	RE	LACM, MNRJ, MZUSP, ZUEC	ASEC, FNVJ, ML, WA	7, 34, 37, 49, 54, 60, 62
Pipridae				
<i>Neopelma pallescens</i> (Lafresnaye, 1853)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP	ASEC, FNVJ, ML, WA, XC	7, 34, 37, 54, 60, 62
<i>Chiroxiphia pareola</i> (Linnaeus, 1766)	RE	FMNH, LACM, MHNAL, MNRJ, MPEG, MZUSP, UFPE	ASEC, FNVJ, ML, WA, XC	7, 29, 34, 37, 48, 54, 60, 62
<i>Manacus manacus guttuosus</i> (Desmarest, 1806)	RE	FMNH, LACM, MHNAL, MNRJ, MPEG, MZUSP, UFPE	FNVJ, ML, WA, XC	7, 34, 37, 48, 54, 60
<i>Ceratopipra rubrocapilla</i> (Temminck, 1821)	RE	FMNH, LACM, MHNAL, MNRJ, MPEG, MZUSP, UFPE	ASEC, FNVJ, ML, WA, XC	7, 34, 37, 48, 54, 60, 62
Cotingidae				
<i>Carpornis melanocephala</i> (Wied, 1820)	RE	MNRJ	ASEC, ML, WA, XC	14, 22, 29, 34, 48
<i>Lipaugus vociferans</i> (Wied, 1820)	RE	LACM, MNRJ, MZUSP	ASEC, ML, WA, XC	7, 34, 37, 48
<i>Procnias averano averano</i> (Hermann, 1783)	RE	MNRJ, MZUSP	FNVJ, WA, XC	7, 29, 34, 37, 48, 60
<i>Procnias nudicollis</i> (Vieillot, 1817)	RE	MNRJ		14, 35

Appendix 1. Continued.

Taxon	Status	Museum collections	Archives	Literature
<i>Xipholena atropurpurea</i> (Wied, 1820)	RE	FMNH, LACM, MNRJ, UFPE	FNJV, ML, WA, XC	9, 22, 30, 34, 36, 48, 60, 62
Tityridae				
<i>Schiffornis turdina intermedia</i> Pinto, 1954	RE	LACM, MHNAL, MNRJ, MZUSP	ASEC, ML, WA, XC	7, 9, 34, 37, 48, 54
<i>Iodopleura pipra leucopygia</i> Salvin, 1885	RE		ML, WA	16, 22, 29, 34, 37, 48
<i>Tityra inquisitor inquisitor</i> (Lichtenstein, 1823)	UN	FMNH, UFPE		35
<i>Tityra cayana braziliensis</i> (Swainson, 1838)	RE	LACM, MNRJ	WA	34
<i>Pachyrhamphus viridis viridis</i> (Vieillot, 1816)	RE	LACM, MZUSP	FNJV, ML, WA	7, 34, 37, 54, 60
<i>Pachyrhamphus polychopterus polychopterus</i> (Vieillot, 1818)	RE	FMNH, LACM, MHNAL, MZUSP, ZUEC	ASEC, FNJV, ML, WA, XC	7, 34, 37, 49, 54, 60
<i>Pachyrhamphus marginatus marginatus</i> (Lichtenstein, 1823)	RE	MZUSP, UFPE	WA	7, 34, 62
<i>Pachyrhamphus validus validus</i> (Lichtenstein, 1823)	RE	FMNH, MNRJ, UFPE	FNJV, ML, WA	34, 60
<i>Xenopsaris albinucha albinucha</i> (Burmeister, 1869)	RE	MNRJ	WA	20, 29
Oxyruncidae				
<i>Oxyruncus cristatus cristatus</i> Swainson, 1821	RE	MNRJ	WA	14, 29, 34, 60
Onychorhynchidae				
<i>Myiobius barbatus barbatus</i> (Gmelin, 1789)	RE	LACM, MNRJ, MZUSP	FNJV, ML, WA, XC	7, 34, 60
Pipritidae				
<i>Piprites chloris chloris</i> (Temminck, 1822)	RE	MZUSP	WA	
Platyrinchidae				
<i>Platyrinchus mystaceus niveigularis</i> Pinto, 1954	RE	FMNH, LACM, MHNAL, MNRJ, MPEG, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 9, 34, 37, 48, 54, 60
<i>Platyrinchus leucoryphus</i> Wied, 1831	RE	MHNAL		
Rhynchocyidae				
<i>Mionectes oleagineus oleagineus</i> (Lichtenstein, 1823)	RE	FMNH, LACM, MHNAL, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	9, 29, 34, 48, 54, 60
<i>Leptopogon amaurocephalus amaurocephalus</i> Cabanis, 1846	RE	FMNH, MHNAL, MNRJ, MZUSP	FNJV, ML, WA, XC	34, 37, 48, 54, 60, 61, 62
<i>Corythopis delalandi</i> (Lesson, 1830)	RE		FNJV, WA, XC	48
<i>Phylloscartes ceciliae</i> Teixeira, 1987	RE	FMNH, MNRJ, MZUSP, UFPE	ASEC, ML, WA, XC	15, 18, 22, 29, 34, 36, 37, 48, 57, 60
<i>Rhynchocyclus olivaceus olivaceus</i> (Temminck, 1820)	RE	FMNH, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 34, 37, 48, 61
<i>Tolmomyias sulphurescens pallescens</i> (Hartert & Goodson, 1917)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP	FNJV, ML, WA, XC	9, 48, 60
<i>Tolmomyias poliocephalus sclateri</i> (Hellmayr, 1903)	RE	FMNH, MNRJ	ASEC, WA, XC	34, 37, 60, 61
<i>Tolmomyias flaviventris flaviventris</i> (Wied, 1831)	RE	FMNH, MHNAL, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 34, 37, 43, 49, 54, 60, 61, 62
<i>Todirostrum cinereum cearae</i> Cory, 1916	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	FNJV, ML, WA, XC	7, 34, 37, 43, 49, 54, 60, 61, 62
<i>Poecilotriccus plumbeiceps cinereipectus</i> (Novaes, 1953)	RE	MNRJ, ZUEC	FNJV, ML, WA	20, 29, 34, 48, 52, 54, 60
<i>Poecilotriccus fumifrons fumifrons</i> (Hartlaub, 1853)	RE	MNRJ, MZUSP	ASEC, FNJV, ML, WA, XC	9, 34, 48
<i>Hemitriccus griseipectus naumburgae</i> (Zimmer, 1945)	RE	FMNH, LACM, MPEG, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 29, 34, 43, 48, 54, 61, 62
<i>Hemitriccus margaritaceiventer wuchereri</i> (Sclater & Salvin, 1873)	RE	FMNH, MZUSP, UFPE	FNJV, ML, WA	7, 34, 49, 54, 60
<i>Hemitriccus mirandae</i> (Sneath, 1925)	RE	MZUSP	FNJV, WA	7, 26, 29, 7, 22, 26, 34, 48, 60
Tyrannidae				
<i>Hirundinea ferruginea bellicosa</i> (Vieillot, 1819)	RE		FNJV, WA	34, 54, 60
<i>Zimmerius acer</i> (Salvin & Godman, 1883)	RE	FMNH, MNRJ, MPEG, UFPE	ML, XC	27, 29, 34, 35, 37, 48
<i>Stigmatura napensis bahiae</i> Chapman, 1926	RE		ML, WA	49
<i>Stigmatura budytoidea gracilis</i> Zimmer, 1955	RE	MNRJ, UFPE	ML, WA	24, 52
<i>Euscarthmus meloryphus meloryphus</i> Wied, 1831	RE	MHNAL, MNRJ, MZUSP, ZUEC	ML, WA	7, 49
<i>Ornithion inermis</i> Hartlaub, 1853	RE	MNRJ	ASEC, FNJV, ML, WA, XC	14, 29, 34, 37, 48, 61, 62
<i>Camptostoma obsoletum cinerascens</i> (Wied, 1831)	RE	MNRJ, MZUSP, UFPE	ML, WA	34, 37, 49, 60, 61, 62
<i>Elaenia flavogaster flavogaster</i> (Thunberg, 1822)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE, ZUEC	FNJV, ML, WA, XC	7, 34, 37, 48, 49, 54, 60, 61, 62
<i>Elaenia spectabilis</i> Pelzeln, 1868	RE	FMNH, MNRJ, MZUSP	WA	37, 49, 60
<i>Elaenia chilensis</i> Hellmayr, 1927	VS	MNRJ, UFPE	FNJV, WA	
<i>Elaenia mesoleuca</i> (Deppe, 1830)	VS	MHNAL, MZUSP		34
<i>Elaenia cristata cristata</i> Pelzeln, 1868	RE	UFPE	WA	62
<i>Elaenia chiriquensis albivertex</i> Pelzeln, 1868	RE	LACM, MNRJ, MZUSP	XC	34
<i>Suiriri suiriri bahiae</i> (Berlepsch, 1893)	RE	MNRJ	ML, WA	60
<i>Myiopagis gaimardii gaimardii</i> (d'Orbigny, 1840)	RE	MNRJ	ASEC, FNJV, ML, WA, XC	14, 34, 37, 48, 54, 61
<i>Myiopagis caniceps caniceps</i> (Swainson, 1835)	RE	MNRJ	WA	18, 34, 60, 61, 62
<i>Myiopagis viridicata viridicata</i> (Vieillot, 1817)	RE	MHNAL, MNRJ, MZUSP, UFPE	ML, WA	9, 48, 49, 60
<i>Capsiempis flaveola flaveola</i> (Lichtenstein, 1823)	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA	34, 43, 48, 54, 60, 61, 62
<i>Phaomyias murina murina</i> (Spix, 1825)	RE	MHNAL, MNRJ, UFPE	FNJV, WA	34, 49, 54, 60
<i>Phyllomyias fasciatus cearae</i> Hellmayr, 1927	RE	MHNAL	ASEC, ML, WA	34, 49, 60, 62
<i>Pseudocolopteryx sclateri</i> (Oustalet, 1892)	UN		ML, WA	
<i>Attila spadiceus uropygiatus</i> (Wied, 1831)	RE	MNRJ, MZUSP	ASEC, FNJV, ML, WA, XC	7, 29, 34, 37, 48, 54, 60, 61
<i>Legatus leucophaeus leucophaeus</i> (Vieillot, 1818)	RE	LACM, MNRJ, MZUSP	ASEC, FNJV, ML, WA	9, 34, 54, 60, 61, 62
<i>Myiarchus tuberculifer tuberculifer</i> (d'Orbigny & Lafresnaye, 1837)	RE	MNRJ	ASEC, ML, WA, XC	29, 34, 37, 48

Appendix 1. Continued.

Taxon	Status	Museum collections	Archives	Literature
<i>Myiarchus swainsoni</i> Cabanis & Heine, 1859	VS	UFPE		37
<i>Myiarchus ferax ferax</i> (Gmelin, 1789)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ML, WA	7, 9, 34, 37, 54, 60, 61, 62
<i>Myiarchus tyrannulus bahiae</i> Berlepsch & Leverkühn, 1890	RE	FMNH, MHNAL, MNRJ, MZUSP, UFPE	FNJV, WA	7, 34, 49, 54, 60, 62
<i>Rhytipterna simplex simplex</i> (Lichtenstein, 1823)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 34, 37, 48, 60, 61
<i>Casiornis fuscus</i> Sclater & Salvin, 1873	RE	FMNH, MZUSP, UFPE	WA	7
<i>Pitangus sulphuratus maximiliani</i> (Cabanis & Heine, 1859)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ML, WA, XC	7, 34, 43, 48, 54, 49, 60, 61, 62
[<i>Philohydor lictor</i> (Lichtenstein, 1823)]				34
<i>Machetornis rixosa rixosa</i> (Vieillot, 1819)	RE	LACM, MNRJ, MZUSP	ML, WA	7, 9, 34, 54, 60, 62
<i>Myiodynastes maculatus solitarius</i> (Vieillot, 1819)	RE	LACM, MHNAL, MZUSP	ASEC, FNJV, ML, WA	9, 34, 37, 54, 60
<i>Megarynchus pitangua pitangua</i> (Linnaeus, 1766)	RE	LACM, MHNAL, MNRJ, MZUSP	ASEC, FNJV, ML, WA, XC	9, 34, 37, 54, 60, 61, 62
<i>Myiozetetes similis pallidiventris</i> Pinto, 1935	RE	CUMV, LACM, MHNAL, MZUSP	ML, WA	7, 34, 37, 43, 49, 54, 60, 61, 62
<i>Tyrannus melancholicus despotes</i> (Lichtenstein, 1823)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP	FNJV, ML, WA, XC	7, 9, 34, 37, 43, 49, 54, 60, 61, 62
<i>Tyrannus savana</i> Daudin, 1802	RE		WA	47
<i>Empidonomus varius rufinus</i> (Spix, 1825)	RE	LACM, MHNAL, MNRJ, MZUSP	FNJV, ML, WA	7, 34, 37, 43, 49, 60, 62
<i>Sublegatus modestus modestus</i> (Wied, 1831)	RE	UFPE	WA	
<i>Arundinicola leucocephala</i> (Linnaeus, 1764)	RE	LACM, MHNAL, MNRJ, MZUSP	ML, WA, XC	7, 9, 34, 43, 48, 54, 60, 61, 62
<i>Fluvicola albiventer</i> (Spix, 1825)	RE	MHNAL	ML, WA	49, 60
<i>Fluvicola nengeta nengeta</i> (Linnaeus, 1766)	RE	FMNH, MNRJ, MPEG, MZUSP, UFPE	FNJV, ML, WA, XC	7, 34, 37, 43, 49, 54, 60, 62
<i>Myiophobus fasciatus flammiceps</i> (Temminck, 1822)	RE	FMNH, LACM, MZUSP, UFPE, ZUEC	ASEC, FNJV, ML, WA, XC	7, 34, 37, 60
<i>Cnemotriccus fuscatus bimaculatus</i> (d'Orbigny & Lafresnaye, 1837)	RE	MNRJ	WA	49, 60
<i>Lathrotriccus euleri euleri</i> (Cabanis, 1868)	RE	FMNH, MHNAL, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	9, 34, 37, 48, 54, 60, 61
<i>Contopus cinereus pallescens</i> (Hellmayr, 1927)	UN	MNRJ, MZUSP	FNJV, WA, XC	7, 34, 37, 48, 60
<i>Satrapa icterophrys</i> (Vieillot, 1818)	UN		WA	58
<i>Knipolegus nigerrimus nigerrimus</i> (Vieillot, 1818)	RE	MNRJ		20, 29
<i>Xolmis irupero niveus</i> (Spix, 1825)	RE		WA	49
Vireonidae				
<i>Cyclarhis gujanensis cearensis</i> Baird, 1866	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 34, 37, 49, 54, 60, 61, 62
<i>Hylophilus amaurocephalus</i> (Nordmann, 1835)	RE	LACM, MNRJ, MZUSP	FNJV, ML, WA	31, 49, 54, 60
<i>Vireo chivi agilis</i> (Lichtenstein, 1823)	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 34, 37, 48, 54, 60, 61, 62
Corvidae				
<i>Cyanocorax cyanopogon</i> (Wied, 1821)	RE	FMNH, LACM, MZUSP, UFPE	WA	7, 9, 49
Hirundinidae				
<i>Pygochelidon cyanoleuca cyanoleuca</i> (Vieillot, 1817)	RE	MPEG, MZUSP		37
<i>Stelgidopteryx ruficollis ruficollis</i> (Vieillot, 1817)	RE	LACM, MZUSP	ASEC, ML, WA	7, 34, 37, 54, 60, 61, 62
<i>Progne tapera tapera</i> (Linnaeus, 1766)	RE	MHNAL	ML, WA	34, 49, 54, 61, 62
<i>Progne subis subis</i> (Linnaeus, 1758)	VN		WA	
<i>Progne chalybea macrorhamphus</i> Brooke, 1974	RE		ML, WA	34, 37, 49, 60, 62
<i>Tachycineta albiventer</i> (Boddaert, 1783)	RE	LACM, MHNAL, MNRJ, MZUSP	ASEC, ML, WA, XC	9, 34, 43, 48, 49, 54, 60, 61, 62
<i>Hirundo rustica erythrogaster</i> Boddaert, 1783	VN	MNRJ	WA	34, 61
Troglodytidae				
<i>Troglodytes musculus musculus</i> Naumann, 1823	RE	LACM, MNRJ, MZUSP	ASEC, ML, WA	7, 9, 34, 37, 49, 54, 60, 61, 62
<i>Campylorhynchus turdinus turdinus</i> (Wied, 1821)	RE		ML	
<i>Pheugopedius genibarbis genibarbis</i> (Swainson, 1838)	RE	FMNH, LACM, MHNAL, MPEG, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 9, 34, 37, 48, 54, 60, 61, 62
<i>Cantorchilus longirostris bahiae</i> (Hellmayr, 1903)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ML, WA	7, 9, 49
Poliptilidae				
<i>Ramphocaenus melanurus melanurus</i> Vieillot, 1819	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 34, 37, 48, 54, 60
<i>Poliptila atricapilla</i> (Swainson, 1831)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA	7, 9, 34, 37, 49, 54, 60, 62
Donacobiidae				
<i>Donacobius atricapilla atricapilla</i> (Linnaeus, 1766)	RE	LACM, MNRJ, MPEG, MZUSP	ML, WA, XC	7, 34, 48, 60, 61
Turdidae				
<i>Catharus fuscescens fuscescens</i> (Stephens, 1817)	VS		WA	52
<i>Turdus flavipes flavipes</i> Vieillot, 1818	VS		WA	
<i>Turdus leucomelas albiventer</i> Spix, 1824	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, ML, WA, XC	7, 34, 37, 48, 54, 60, 61, 62
<i>Turdus fumigatus fumigatus</i> Lichtenstein, 1823	RE	MNRJ		18, 61
<i>Turdus rufiventris juensis</i> (Cory, 1916)	RE	FMNH, LACM, MHNAL, MZUSP, UFPE	ASEC, ML, WA	7, 34, 37, 49, 60, 62
<i>Turdus amaurochalinus</i> Cabanis, 1850	RE	FMNH, MHNAL, MZUSP, UFPE	FNJV, WA	9, 34, 62
<i>Turdus albicollis crotopezus</i> Lichtenstein, 1823	VS	FMNH, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, XC	9, 29, 34, 37, 48, 60
Mimidae				
<i>Mimus gilvus antelius</i> Oberholser, 1919	RE		WA	43, 54

Appendix 1. Continued.

Taxon	Status	Museum collections	Archives	Literature
<i>Mimus saturninus arenaceus</i> Chapman, 1890	RE	LACM, MNRJ, MZUSP	WA	7, 34, 49, 54, 60
Estrildidae				
<i>Estrilda astrild</i> (Linnaeus, 1758)	RE		ML, WA	60, 61
Passeridae				
<i>Passer domesticus domesticus</i> (Linnaeus, 1758)	RE	MNRJ	ML, WA, XC	29, 34, 49, 60, 62
Motacillidae				
<i>Anthus chii chii</i> Vieillot, 1818	RE	LACM, MNRJ, MZUSP	ML, WA, XC	7, 34, 48, 49, 60, 62
Fringillidae				
<i>Spinus yarrellii</i> (Audubon, 1839)	RE	LACM, MNRJ, MZUSP, UFPE	WA	7, 9, 22, 29, 34, 48, 60
<i>Cyanophonia cyanocephala cyanocephala</i> (Vieillot, 1819)	RE		WA, XC	48, 52
<i>Euphonia chlorotica chlorotica</i> (Linnaeus, 1766)	RE	LACM, MNRJ, MZUSP	FNJV, ML, WA	7, 34, 49, 54, 60, 61, 62
<i>Euphonia violacea aurantiicollis</i> Bertoni, 1901	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 34, 37, 48, 54, 60, 61
<i>Euphonia pectoralis</i> (Latham, 1801)	RE	FMNH, MNRJ, UFPE	ASEC, ML, XC	14, 34, 37, 35, 48, 60
Passerellidae				
<i>Ammodramus humeralis humeralis</i> (Bosc, 1792)	RE	FMNH, LACM, MHNAL, MZUSP, UFPE	ML, WA, XC	7, 34, 43, 48, 49, 60, 61, 62
<i>Arremon taciturnus taciturnus</i> (Hermann, 1783)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 34, 37, 54, 60, 61, 62
<i>Zonotrichia capensis matutina</i> (Lichtenstein, 1823)	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	WA	7, 34, 37, 49, 60
Icteridae				
<i>Leistes superciliosus</i> (Bonaparte, 1850)	RE	LACM, MHNAL, MNRJ, MZUSP	ML, WA, XC	7, 49, 60
<i>Cacicus solitarius</i> (Vieillot, 1816)	RE		ML, WA	54, 62
<i>Cacicus cela</i> (Linnaeus, 1758)	RE	MNRJ, MZUSP	ASEC, FNJV, WA	7
<i>Cacicus haemorrhous affinis</i> Swainson, 1834	RE	LACM, MNRJ, MZUSP	ASEC, ML, WA, XC	7
<i>Icterus jamaicai</i> (Gmelin, 1788)	RE	LACM, MZUSP	ML, WA	7, 29
<i>Icterus pyrrhopterus tibialis</i> Swainson, 1838	RE	LACM, MNRJ, MZUSP	ASEC, WA, XC	7, 34, 37, 49, 54, 60
<i>Molothrus rufoaxillaris</i> Cassin, 1866	RE		WA	58
<i>Molothrus bonariensis bonariensis</i> (Gmelin, 1789)	RE	LACM, MNRJ, MZUSP	WA	7, 34, 49, 60, 62
<i>Anumara forbesi</i> (Sclater, 1886)	RE	CMNH, LACM, MNRJ, MZUSP, USNM, ZUEC	ASEC, FNJV, ML, WA, XC	17, 22, 29, 34, 36, 48, 60
<i>Gnorimopsar chopi sulcirostris</i> (Spix, 1824)	RE	MZUSP	WA	
<i>Agelaioides fringillarius</i> (Spix, 1824)	RE	LACM, MHNAL, MNRJ, MZUSP, UFPE	FNJV, ML, WA	7, 34, 48, 49, 60
<i>Chrysomus ruficapillus frontalis</i> (Vieillot, 1819)	RE	LACM, MNRJ, MZUSP	ML, WA	7, 34, 60
Parulidae				
<i>Geothlypis aequinoctialis velata</i> (Vieillot, 1809)	RE		ML, WA	52, 54
<i>Setophaga pitiayumi pitiayumi</i> (Vieillot, 1817)	RE		WA	34, 37, 60
<i>Myiothlypis flaveola flaveola</i> Baird, 1865	RE	LACM, MHNAL, MNRJ, MZUSP	ASEC, FNJV, ML, WA	7, 48, 54, 60, 62
<i>Basileuterus culicivorus auricapilla</i> (Swainson, 1838)	RE	FMNH, LACM, MNRJ, MZUSP, UFPE, ZUEC	FNJV, ML, WA, XC	9, 34, 37, 48, 54, 60, 61, 62
Cardinalidae				
<i>Piranga flava saira</i> (Spix, 1825)	RE	MZUSP		7, 60
<i>Habia rubica bahiae</i> Hellmayr, 1936	RE	LACM, MZUSP	ASEC, ML, WA, XC	7, 34, 48
<i>Caryothraustes brasiliensis</i> Cabanis, 1851	RE	FMNH, LACM, MNRJ, MPEG, MZUSP, UFPE	ASEC, ML, WA, XC	7, 34, 37, 48, 54
<i>Cyanoloxia brissonii brissonii</i> (Lichtenstein, 1823)	RE	LACM, MNRJ, MZUSP	WA	7, 34, 49, 60
Thraupidae				
<i>Nemosia pileata caerulea</i> (Wied, 1831)	RE	MHNAL, MNRJ, MZUSP, UFPE	ASEC, ML, WA	7, 34, 37, 54, 60, 61, 62
<i>Compsothraupis loricata</i> (Lichtenstein, 1819)	RE	LACM, MZUSP	WA	7, 29, 43, 49
<i>Emberizoides herbicola herbicola</i> (Vieillot, 1817)	RE	LACM, MNRJ, MZUSP	FNJV, ML, WA	7, 9, 34, 54, 60, 62
<i>Chlorophanes spiza axillaris</i> Zimmer, 1929	RE	FMNH, MNRJ, UFPE	ASEC, WA	34, 37, 60
<i>Hemithraupis flavicollis melanoantha</i> (Lichtenstein, 1823)	RE	FMNH, LACM, MPEG, MZUSP, UFPE	ASEC, ML, WA, XC	7, 34, 37, 48
<i>Hemithraupis guira guira</i> (Linnaeus, 1766)	RE	FMNH, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA	34, 37, 48, 54, 60, 61, 62
<i>Tersina viridis viridis</i> (Illiger, 1811)	VS		FNJV, ML, WA	34, 52, 54, 62
<i>Cyanerpes cyaneus holti</i> Parkes, 1977	RE	FMNH, MZUSP	ML, WA, XC	7, 34, 37, 54, 60, 62
<i>Dacnis cayana paraguayensis</i> Chubb, 1910	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE, ZUEC	ASEC, ML, WA	7, 34, 37, 54, 60, 61, 62
<i>Saltator maximus maximus</i> (Statius Muller, 1776)	RE	LACM, MNRJ, MZUSP, ZUEC	FNJV, ML, WA, XC	7, 34, 37, 43, 48, 54, 60, 61, 62
<i>Saltator fuliginosus</i> (Daudin, 1800)	RE	MNRJ	ASEC, FNJV, ML, WA, XC	29, 34, 37, 48, 60
<i>Coereba flaveola chloropyga</i> (Cabanis, 1850)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, ML, WA, XC	7, 34, 37, 43, 49, 54, 60, 61, 62
<i>Asemospiza fuliginosa fuliginosa</i> (Wied, 1830)	UN	MNRJ, MZUSP, UFPE	ASEC, FNJV, WA, XC	9, 34, 37, 48, 60
<i>Volatinia jacarina jacarina</i> (Linnaeus, 1766)	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	ML, WA, XC	7, 34, 37, 43, 48, 49, 54, 60, 61, 62
<i>Coryphospingus pileatus pileatus</i> (Wied, 1821)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ML, WA	7, 49
<i>Loriotus cristatus brunneus</i> (Spix, 1825)	RE	FMNH, LACM, MHNAL, MNRJ, MPEG, MZUSP, UFPE	ML, WA, XC	7, 34, 37, 48, 54, 60, 61
<i>Tachyphonus rufus</i> (Boddaert, 1783)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	FNJV, WA	7, 34, 37, 48, 49, 54, 60, 62
<i>Ramphocelus bresilia bresilia</i> (Linnaeus, 1766)	RE	LACM, MNRJ, MZUSP	ML, WA	7, 34, 37, 54, 60
<i>Sporophila lineola</i> (Linnaeus, 1758)	RE	LACM	FNJV, WA	

Appendix 1. Continued.

Taxon	Status	Museum collections	Archives	Literature
<i>Sporophila nigricollis nigricollis</i> (Vieillot, 1823)	RE	FMNH, LACM, MNRJ, MPEG, MZUSP, UFPE	FNJV, ML, WA	7, 34, 54, 60
<i>Sporophila albogularis</i> (Spix, 1825)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA	7, 34, 49, 60
<i>Sporophila leucoptera cinereola</i> (Temminck, 1820)	RE	LACM, MNRJ, MZUSP	ASEC, FNJV, ML, WA, XC	7, 9, 48, 60
<i>Sporophila bouvreuil</i> (Statius Muller, 1776)	RE	LACM, MNRJ, MZUSP	FNJV, ML, WA	7, 34, 49, 60, 62
<i>Sporophila angolensis angolensis</i> (Linnaeus, 1766)	RE	LACM, MNRJ, MZUSP	ASEC, WA	7, 29, 54, 60
<i>Thlypopsis sordida sordida</i> (d'Orbigny & Lafresnaye, 1837)	RE	FMNH, LACM, MNRJ, MZUSP, UFPE, ZUEC	FNJV, ML, WA, XC	7, 34, 37, 54, 60, 62
<i>Conirostrum speciosum speciosum</i> (Temminck, 1824)	RE	FMNH, MZUSP	ML, WA, XC	7, 34, 60, 62
<i>Conirostrum bicolor bicolor</i> (Vieillot, 1809)	RE	MNRJ	FNJV, ML, WA	62
<i>Sicalis flaveola brasiliensis</i> (Gmelin, 1789)	RE	LACM, MNRJ, MZUSP	ML, WA	7, 34, 49, 60
<i>Sicalis columbiana leopoldinae</i> Hellmayr, 1906	RE		WA	
<i>Sicalis luteola luteiventris</i> (Meyen, 1834)	RE		ML, WA, XC	49
<i>Cissopis leverianus</i> ssp. (Gmelin, 1788)	RE	MNRJ		16
<i>Schistochlamys melanopis melanopis</i> (Latham, 1790)	RE	MNRJ	WA	
<i>Schistochlamys ruficapillus</i> (Vieillot, 1817)	RE	LACM, MNRJ, MZUSP	ASEC, ML, WA	7, 34, 37, 60
<i>Paroaria dominicana</i> (Linnaeus, 1758)	RE	LACM, MHNAL, MNRJ, MZUSP, UFPE	FNJV, WA	7, 34, 49, 60
<i>Thraupis sayaca sayaca</i> (Linnaeus, 1766)	RE	FMNH, LACM, MHNAL, MNRJ, MZUSP, UFPE	ML, WA, XC	7, 34, 37, 43, 48, 49, 54, 60, 62
<i>Thraupis palmarum palmarum</i> (Wied, 1821)	RE	FMNH, LACM, MNRJ, MZUSP, UFPE	ASEC, FNJV, ML, WA, XC	7, 34, 37, 43, 54, 60, 62
<i>Stilpnia cayana flava</i> (Gmelin, 1789)	RE	LACM, MHNAL, MNRJ, MZUSP	ASEC, FNJV, ML, WA	7, 34, 37, 48, 54, 60, 62
<i>Tangara fastuosa</i> (Lesson, 1831)	RE	FMNH, MNRJ, MZUSP, UFPE	FNJV, ML, WA, XC	9, 22, 29, 34, 36, 37, 38, 48, 54, 60, 62
<i>Tangara cyanocephala cearensis</i> Cory, 1916	RE	FMNH, MNRJ, MZUSP, UFPE, ZUEC	ASEC, FNJV, ML, WA	7, 37, 48, 54, 60
<i>Tangara cyanomelas</i> (Wied, 1830)	RE	FMNH, MNRJ, UFPE	ASEC, ML, WA, XC	34, 35, 37

APPENDIX 2

Tertiary list – species for which there are published records for the state, but whose evidence is either questionable or invalid.

Crypturellus variegatus

One tinamou collected in Igarassu, Pernambuco, on 25 July 1996 (UFPE 1122) was identified as being *Crypturellus variegatus* and then the putative occurrence of this species in the PCE, based on this record, probably set a precedent for subsequent misidentified records of *C. variegatus* in Alagoas (Roda, 2003). We have checked the abovementioned specimen and it proved to be a *C. soui* (photos available upon request). We consider all records allegedly of *C. variegatus* in the PCE (Roda, 2003), probably aural encounters, to be misidentifications of *C. strigulosus*.

Chionomesa lactea*, *Aramides saracura* and *Psittacara leucophthalmus

These species were listed for the state in an obscure paper (Silva et al., 2015). The concerned paper contains so many errors that it is difficult to take it seriously and the records allegedly of these species are obvious confusions with similar species, namely *Chionomesa fimbriata*, *Aramides cajaneus* and *Diopsittaca nobilis*.

Amadonastur lacernulatus

Alleged occurrence of this species in the PCE is due to a cascade of errors. Another white hawk that occurs in the PCE, the White-collared Kite *Leptodon forbesi*, was long believed to be an invalid species (see Dénes et al., 2011). It follows that *L. forbesi* was largely omitted from field guides and reference works (e.g., Sick, 1997) and thus many ornithologists made misidentifications of white hawks in the PCE. Pinto & Camargo (1961) were the first to report the occurrence of *A. lacernulatus* in the PCE. They collected a specimen of *L. forbesi* in Alagoas and misidentified it as *A. lacernulatus*, an error discovered only decades later after reexamination of the specimen (Dénes et al., 2011). In the meantime, the alleged occurrence of *A. lacernulatus* in the PCE, based on Pinto and Camargo's misidentified record, was widely disseminated in the ornithological literature (Pinto, 1978; Collar et al., 1992; Thiollay, 1994; Pacheco & Whitney, 1995; Sick, 1997; Ferguson-Lees & Christie, 2001) and some ornithologists who conducted field surveys in the PCE published a lot misidentified records allegedly of this species (Collar et al., 1992; Wege & Long, 1995; Pacheco & Whitney, 1995; Roda et al., 2003; Roda & Pereira, 2006; Almeida & Teixeira, 2010). Now, we know that *L. forbesi* is a valid species and relatively common in the PCE (Pereira et al., 2019a; Lima et al., 2020), and that all alleged records of *A. lacernulatus* in this region are likely misidentifications of either *L. forbesi* or Mantled Hawk *Pseudastur polionotus*.

Piculus chrysochloros

A record from the Murici Ecological Station identified as being of this species (Silveira et al., 2003a) is a confusion with *P. flavigula*. Occurrence in the state, however, is not unlikely, but in the Caatinga westwards.

Pyrrhura cruentata* and *Dendroma rufa

In 1865, a group of scientists from the Museum of Comparative Zoology (MCZ) embarked for Brazil in an expedition to study the country's fauna and flora (Dick, 1977). Newton Dexter, a member of the expedition, collected bird specimens in the state of Bahia for two or three weeks, and after in Maceió, Alagoas, where he stayed only one day (Agassiz, 1868: chapter IV). Among the specimens from this expedition in the MCZ bird collection, twenty have "Maceió, Alagoas" and none has "Bahia" as the locality of collection on their labels. Two of these specimens, namely a *Pyrrhura cruentata* (MCZ 7251) and a *Dendroma rufa* (MCZ 7242), called our attention because Maceió is far from the known northern limits of these species in Brazil. Other noteworthy species, considering that they may have been collected in Maceió, include *Odontophorus capueira* and *Chelidoptera tenebrosa*. Unfortunately, we were not able to ascertain whether these specimens were really collected in Alagoas and we believe that the assignment of all of them to Alagoas instead of Bahia is probably due to clerical error.

Pipra fasciicauda

The species has been reported for Alagoas in some reference works (Ridgely & Tudor, 1994, 2009; Haffer, 1997; Snow, 2004) without any evidence regarding its alleged occurrence in the state. As already noted by Albano & Girão (2008) and Kirwan & Green (2012), the alleged occurrence of the Band-tailed Manakin in Alagoas lacks evidence to be credible and is likely erroneous.

Myiornis auricularis

A sound-recording from the Murici Ecological Station formerly identified as being of this species (XC 284000; J. Minns) was cited in an article (Ruiz-Esparza *et al.*, 2018), constituting the only mention of *Myiornis auricularis* for the state. The animal in this sound-recording, however, is in fact a frog (*Pristimantis ramagii*; Marcos Dubeux *pers. comm.*).

Conopias trivirgatus

The species was mentioned in a bird list from Piaçabuçu without any details (Cabral *et al.*, 2006). This record is likely a misidentification of the regionally common Social Flycatcher *Myiozetetes similis*.

Hylophilus pectoralis

Alleged record for this species in Alagoas (Pinto & Camargo, 1961) is a misidentification for Gray-eyed Greenlet *H. am- aurocephalus* (Pacheco *et al.*, 2011).

Tachycineta leucorrhoa

A single undocumented record in Alagoas (Silveira *et al.*, 2003a) is likely a misidentification of White-winged Swallow *Tachycineta albiventer*. Although *T. leucorrhoa* is known to occur in extreme northeastern Brazil (Sagot-Martin *et al.*, 2020), and thus its occurrence in the state would not be unexpected, the putative Alagoas record was near a large water reservoir, typical habitat of the regionally much commoner *T. albiventer*, which is absent in Silveira *et al.*'s (2003a) list.

Sporophila ardesiaca

Recent records in the state (*e.g.*, WA 3870941; C. Almeida) are likely of cagebirds inappropriately released by the environmental police in the region, since the species is known to be traded on the local black market (Lopes & Freitas, 2017) and had never been recorded in the region.

Sporophila caerulescens

Recent records in the states of Alagoas (*e.g.*, WA 4446358; A. Rodrigues) and Pernambuco (*e.g.*, WA 2394408; C. Gussoni) are likely of cagebirds inappropriately released in the region, since the species is known to be traded on the local black market (Pagano *et al.*, 2009; Licarião *et al.*, 2013) and had never been recorded in the region.

Sporophila maximiliani

We were unable to trace any records from Alagoas. Therefore, we consider the putative occurrence of this species in the state mentioned by Sick (1997) to be speculative. See the species' range based on documentary evidence in Ubaid *et al.* (2018).