

An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil

José Fernando Pacheco, Guy M. Kirwan, Alexandre Aleixo, Bret M. Whitney, Andrew Whittaker, Jeremy Minns, Kevin J. Zimmer, Paulo Sérgio M. da Fonseca, Maria de Fátima C. Lima and David C. Oren

Received 5 February 2006; final revision accepted 8 December 2006
Cotinga 27 (2007): 15–36

A região da Serra dos Carajás, no sudeste do Pará (altitude média de 700 m), se situa na Amazônia oriental e já abriga uma das comunidades de aves mais ricas do Brasil e da América do Sul, mesmo tendo sua enorme superfície (18,000 km²) sido inventariada por biólogos apenas recentemente e de maneira parcial. A região é protegida e explorada pela mineradora Companhia Vale do Rio Doce (CVRD) desde a descoberta no local do maior depósito de minério de ferro do mundo, além de jazidas de outros minerais de importância econômica. Apresentamos aqui uma lista sistemática com 575 espécies de aves registradas por nós e/ou coletadas na região durante expedições do Museu Paraense Emílio Goeldi desde os anos 1980; fornecemos também, para cada espécie, detalhes sobre sua distribuição, habitats utilizados e tipo de documentação na área de estudo. Muitas espécies amazônicas de ampla distribuição consideradas raras / pouco conhecidas têm seu limite leste de distribuição na Serra dos Carajás, ao mesmo tempo em que populações de vários táxons endêmicos da Amazônia oriental também ocorrem na área. Apresentamos algumas informações básicas e dicas para observadores de aves que desejem visitar a região, com maiores detalhes podendo ser obtidos em www.cvrld.com.br, www.ibama.gov.br e www.arthurgrosset.com

The Companhia Vale do Rio Doce (CVRD) is well known for its concern that its mining operations be sustainable, and in the Serra dos Carajás, in south-east Pará, this concern has reached a high point. In the study of the region's natural resources, the recording and collecting of the avifauna undertaken by the Museu Paraense Emílio Goeldi (Belém, Pará; MPEG) has been key, as it has been for other vertebrate and botanical groups. A number of publications have resulted from the museum's avifaunal work in the region, including the discovery of new populations and subspecies of White Bellbird *Procnias alba wallacei*^{8,12} and Ochre-cheeked Spinetail *Synallaxis scutata teretiala*⁵ (the latter considered indistinguishable from the nominate by Teixeira & Luigi¹⁵ and Rensen¹¹), and the description of a new phylogenetic species within the Strong-billed Woodcreeper *Xiphocolaptes promeropyrhynchus* complex¹⁴, as well as many new distributional data, including significant range extensions for such rare species as Peruvian Recurvebill *Simoxenops ucayalae*⁴, Chestnut-throated Spinetail *Synallaxis cherriei*^{4,10}, Black-and-white Tody-tyrant *Poecilatriccus capitalis*^{4,6}, Black-chested Tyrant *Taeniotriccus andrei*¹⁹ and, most recently, Dusky-tailed Flatbill *Ramphotrigon fuscicauda*¹⁶, a very poorly known bird in Brazil. However, the work undertaken by MPEG, together with the inventory presented here, are far from being definitive, given that the area for which the CVRD is responsible is one-third the size of Belgium or one-tenth that of Portugal! Much more field work is needed before we can present a

complete outline of the species that are resident or occur seasonally in the study area. Nonetheless, the present list is considered worthy of publication, given (even now) the relative paucity of basic avifaunal lists for most areas of Brazilian Amazonia⁷.

We visited localities in the CVRD area (officially known as the Carajás National Forest), the APA (Protected Environmental Area) of Igarapé-Gelado and the Tapirapé-Aquiri National Forest. We did not visit the Tapirapé Biological Reserve, the Itacaiúnas National Forest or the Cateté Indian Reserve.

The 575 species (see Appendix) that we have recorded in the above regions already makes the Serra dos Carajás one of the biologically most diverse areas on the planet, potentially as rich as the famous and well-worked Alta Floresta region, in Mato Grosso¹⁸. In particular, the 19 species of Dendrocolaptidae recorded in the area equals the total recorded in Tapajós National Park, further west in Pará, which in turn is considered the largest number at any site in the Neotropics⁹. In addition to the collecting work of the MPEG, these results are the product of 24 visits (including those of the other observers mentioned under Material and methods), each lasting 2–20 days, made since the early 1990s by ourselves and others.

Description of the region

The areas conserved by the CVRD in its Projeto Grande Carajás total c.18,000 km² or 761,662 ha and lie between the rios Araguaia / Tocantins and

the Xingu, centred on c.06°00'S 50°30'W. As well as the area ceded directly to the CVRD, the company is responsible for guarding five IBAMA (Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis) conservation areas and the Xikrin (Cateté) Indian Reserve. The vegetation of the region is predominantly perennial equatorial forest, except for the summit of the Serra dos Carajás where a peculiar type of rupicolous vegetation, known as *canga*, occurs on outcrops of iron ore. This vegetation is typical of rocky areas, where there are also a few small lakes. Mean elevation of the serra is 300–400 m above that of the surrounding region and 700 m above sea level.

The climate is predominantly hot and humid, with two distinct seasons. Approximately 90% of rainfall occurs in November–May. Precipitation ranges from 1,600 to 2,600 mm/year, the mean being c.1,900 mm. Mean temperature on the tableland is 23°C (at the Zoobotanical Park). Winds are predominantly from the north-east, but the trade winds are much weakened by the time they reach Carajás, which is 900 km from the nearest coast.

Most of the region is drained by the rio Itacaiúnas system, which flows into the rio Tocantins at Marabá, on its left bank. The principal tributary of the Itacaiúnas is the rio Parauapebas, which flows along the eastern foot of the tableland. The pH of the soil varies from 5.5 to 7.0.

In addition to its reserves of iron, manganese, nickel and tin, Carajás has considerable deposits of copper and gold. A wide-gauge (1.6 m) railway, of 890 km, links Carajás to Ponta da Madeira, on the Baía de São Marcos, 10 km south-east of the city of São Luís, in Maranhão.

Mineral deposits at Carajás were undiscovered until 1967. Geological surveys were undertaken in 1967–72, during which period the reserves were quantified. Feasibility studies and environmental assessment lasted from 1972 to 1980, and in 1980–85 the project was implanted. Operations finally commenced in 1985. Carajás has the largest deposit of iron ore on the planet, with more than 18 billion tons of haematite possessing an iron content of more than 66% (see www.cvrd.com.br).

Material and methods

Our observations were based on visual and audio records gathered while walking through areas chosen to provide a significant sample of the various ecosystems down to microhabitats. We used binoculars, telescopes and Sony TCM-5000 EV recorders with Sennheiser ME80, ME66 and ME67 microphones, and boosters. JM also employed a Sony TCD-D10PROII recorder with a 25" reflector. Recordings have, in many cases, been (or will be) archived at the National Sound Archive, London,

UK, and / or the Arquivo Sonoro Elias Coelho, Universidade Federal do Rio de Janeiro, Brazil (JM, GMK, AA), or the Library of Natural Sounds, Cornell Lab of Ornithology, Ithaca, NY, USA (BMW, KJZ). Unidentified recordings were analysed by BMW and AW, using their sound archives and experience in western and central Amazonia.

We covered the principal roads at Carajás, from the main entrance to Salobo as well as the roads leading to the iron, manganese, copper and gold mines. We visited areas around the residential, mining and industrial areas, the Zoobotanical Park and the Forestry Park. Various *canga* regions and other open areas on the summit of the tableland were studied. Our results include sightings made from vehicles as we travelled along the roads within the project area, but do not include ducks released in the Zoobotanical Park and resident there in a semi-wild state.

The region was divided into three macro-regions: the plateau of the Serra dos Carajás, and the valleys of the rio Itacaiúnas and the rio Parauapebas, which we divided tentatively into ten habitat categories. This classification is used in the Appendix.

The dates of the surveys and the participants were as follows: 15–24 January 1991 (JFP & PSMF), 27 May–15 June 1991 (JFP), 28–29 July 1991 (JFP), 15–22 September 1992 (JFP, PSMF & BMW), 6–12 December 1993 (JFP & BMW), 6–12 December 1994 (BMW & Richard Webster), 26 January–3 February 2001 (GMK, JM, David Beadle & Arthur Grosset), 1–10 February 2003 (AW & KJZ), 27 September–5 October 2003 (AA & Fabíola Poletto), 17–24 April 2004 (AA & Fabíola Poletto), 3–10 February 2004 (AW & KJZ *et al.*), 27 August–9 September 2004 (GMK *et al.*), 30 April–3 May 2005 (AW), 5–8 June 2005 (AW), 22–30 October 2005 (JM & Arthur Grosset), 3–11 November 2005 (AW *et al.*), 23–30 December 2005 (GMK *et al.*) and 1–12 September 2006 (GMK *et al.*). In addition, we were able to avail ourselves of observations made by Rupert Quinnell, on 15–18 May 1992 and 7–16 July 1994, Ricardo Parrini, on 8–14 October 2000, Marcelo Vasconcelos, on 2–4 August 2004 and 9–13 April 2005, and Peter Boesman and Mark van Biers, on 9–22 January 2005. Except for the visit in May–June 1991, when JFP worked with the late entomologist Luiz Soledade Otero, as support for a photographic project undertaken by Luiz Claudio Marigo, our focus was entirely ornithological.

Our direct field observations were supplemented by the study of a collection of birds obtained in the Carajás area (regions A and C; see below) during the 1980s and 1990s by MPEG personnel working at the Section of Ornithology; this unique

collection ranks among the largest known for eastern Amazonia, with over 1,000 specimens.

Regions

The following is a brief description of the three principal regions covered in the survey.

Region A: The plateau of the Serra dos Carajás (the north Serra) is covered by *terra firme* forest with large patches of lower and drier vegetation where the ore-bearing *canga* appears on the surface. An urban nucleus with c.8,000 inhabitants, the infrastructure for the iron and manganese mines, the airport and the main roads are all located in this region, which also includes other residential centres, both in use and disused, the Forestry Park and the Zoobotanical Park. These man-made complexes have created a large number of new microhabitats and increase the options for survey transects.

Region B: This comprises the forests of the valley of the rio Parauapebas, part of which are crossed by the 'Paranapanema' road from the main gate to the urban nucleus, and by the Carajás / São Luís railway. Several artificial lakes have been created here, by damming small forest streams, and also open areas of different sizes, especially at former construction sites along the railway.

Region C: Comprises the forests of the valley of the rio Itacaiúnas, part of which are crossed by the road linking mine N1 to Salobo and by the 'Pojuca' road, perpendicular to the first, which provides access to the copper mine at Igarapé Bahia. Part of this region borders the agricultural settlement of Jader Barbalho and the Cateté Indian reserve.

Habitats

The habitats preferred by each species, as determined by us, are shown in order by the following abbreviations.

- F** *Terra firme*—the predominant habitat, both in valleys and on high land.
- Fr** *Riverine forest*—forest along the two principal rivers (Parauapebas and Itacaiúnas), partially subject to seasonal flooding, including *várzea* and vine forest.
- Fb** *Forest edge*—clearings and forest borders with low pioneer vegetation and some invasive plants.
- Ff** *Flooded forest*—areas artificially flooded by the damming of forest streams and the building of roads.
- Ft** *Transitional forest*—dense forest with lower canopy, between *terra firme* and *canga*.
- Fe** *Foothill forest*—forest on the slopes of the serra, with higher humidity. This treatment as a distinct habitat is tentative.

R *River*—river habitat, including banks and beaches.

C *Canga*—open, rocky habitat with sparse vegetation on outcrops of iron ore.

L *Lakes*—open water occurring naturally in the *canga*, and the north and south reservoirs.

A *Aerial*—used for species which spend most of their time in flight (such as swifts) or those seen flying over several different habitats.

Avifaunal remarks

Of the total of 575 species that have been found in the Carajás region during our field work, approximately 70% have been documented with photographs, sound-recordings and / or specimens (see Appendix). Targeted work is desirable to document some taxa which we have been unable to identify specifically, for example *Forpus xanthopterygius* / *passerinus* and *Coccyzus americanus* / *euleri*. Other identifications are still tentative because they require detailed taxonomic analysis of some species-pairs, e.g. *Megascops* sp. and *Campylorhamphus* sp. Furthermore, Sclater's Antwren *Myrmotherula sclateri* is included here on the basis of sightings and tape-recordings made in 2006, though more work on vocal differences in populations of this species is required. Tooth-billed Wren *Odontorchilus cinereus* is tentatively included on the list on the basis of brief sight-only observations during which most of the diagnostic features were observed. The presence of both these two latter species represents significant extensions of their known range.

Only one species recorded by the present inventory, Hyacinth Macaw *Anodorhynchus hyacinthinus*, is considered globally threatened², under the Endangered category. The same species is the only one we have recorded in Carajás to appear in the Brazilian list of animals in danger of extinction³ (available at www.museu-goeldi.br).

Five species are considered globally Near Threatened: White-crested Guan *Penelope pileata*, Crested Eagle *Morphnus guianensis*, Harpy Eagle *Harpia harpyja*, Pearly Parakeet *Pyrrhura lepida* and Peruvian Recurvebill *Syndactyla ucayalae*¹, whilst the two eagles are accorded the same status on the Brazilian threatened list³.

Eight taxa, some of them treated subspecifically, are considered Data Deficient at national level: White-crested Guan *Penelope pileata*, Red-throated Piping-guan *Aburria kujubi*, Grey-bellied Hawk *Accipiter poliogaster*, Orange-breasted Falcon *Falco deiroleucus*, Pearly Parakeet *Pyrrhura lepida anerythra*, Fiery-tailed Awlbill *Avocettula recurvirostris*, White Bellbird *Procnias albus wallacei* and Sharpbill *Oxyruncus cristatus hypoglaucus*.

Several species found at Carajás are typical of diverse types of open and semi-open landscapes

which, in this region, are characterised by *canga* vegetation. Examples include: Small-billed Tinamou *Crypturellus parvirostris*, Russet-crowned Crake *Laterallus viridis*, Spot-tailed Nightjar *Caprimulgus maculicaudus*, Rufous-winged Antshrike *Thamnophilus torquatus* and Pearly-vented Tody-tyrant *Hemitriccus margaritaceiventer*. Populations of these species (in particular those that are non-migratory) are naturally isolated from others of the same species in other biomes (i.e. the *Cerrado* and the *Caatinga*). This point is important from both the biogeographic and conservation standpoints.

Recommendations

Further avifaunal work in the Carajás region is required, including those parts not visited by us or during previous surveys, such as the southern part of the Carajás National Forest (see also above), in order to obtain a better idea of its composition, seasonal variation and the relative abundance of species in the various habitats.

Consideration should be given to other studies of the fauna and flora, their inter-relationships and interactions, within the framework of an integrated research project, which might cover botany, forestry, hydrology, mammology, entomology and herpetology. Studies of pollinisation and seed dispersal would be of particular interest. Emphasis might be given, for example, to the collection of data on the plants whose fruit is eaten by birds and the role played by these in seed dispersal.

Our initial observations suggest that the *canga* with its unique stunted vegetation, small marshes and pools is not only a very important habitat for many resident non-forest bird species (see appendix), but also serves as an important stopover and feeding area for both migrants and forest birds (e.g. Psittacidae and Cotingidae) that 'cash-in' on the seasonally abundant fruit. We envisage that further research in the *canga* might uncover the presence of many endemic plant and animal species, possibly even including further new taxa, such as the freshwater fish discovered in the lakes of these regions.

Carajás possesses an exceptional infrastructure, with comfortable and easily affordable accommodation, reasonable graded roads, good forest access and logistical support, which would enable this area to become a focal point for research in eastern Amazonia, just as the Linhares reserve has become an international reference point for the Atlantic Forest.

Birdwatching opportunities

The first birdwatching visits to the Serra dos Carajás were made in the early 1990s and, despite a relative surge of interest since the new millennium, the area still holds enormous potential

for further ornithological discoveries. For instance, the initial visit by AW and KJZ garnered the first significant life history and vocalisation data for the very poorly known Black-chested Tyrant *Taeniotriccus andrei*¹⁹. Documentation of some of our most significant discoveries, involving range extensions, new breeding data etc., will be presented elsewhere. For visitors serious about seeing a wide range of species, we recommend that at least one week be spent in the area. There are two hotels in the urban centre (advance bookings extremely advisable), which is served by an airport with regular flights from Belém and almost daily flights from the capital, Brasília, both of which in turn are served by many routes from most major cities in Brazil (including Rio de Janeiro and São Paulo). It is also possible to drive from Belém, but note that you need to allot c.12 hours for the journey. Restaurants and most other facilities are also available in the urban area, including two banks, a post office and internet access. Permission is needed to visit, from both the CVRD and IBAMA, and should be obtained in advance. There is a small daily charge per person. You will also be allotted a CVRD guide cum guard during your time there. Car hire is available on site and is best booked in advance (e.g. at www.localiza.com.br); Carajás is a huge area and a vehicle is essential. It is also possible to stay in the town of Parauapebas, just outside the area, where there are many more hotels (prior booking will probably be unnecessary), restaurants and other relevant facilities, although staying there will necessitate longer drives to most of the main birdwatching areas, other than the first-mentioned below. Some of the best birdwatching areas are as follows.

The rio Parauapebas, immediately south of the bridge beyond the main entrance to the complex, has proven an excellent area in recent years. There is a trail, narrow in many places, which continues for several kilometres, latterly through seasonally flooded forest. This area is amongst the best for Black-chested Tyrant, and is also excellent for Cryptic Forest-falcon *Micrastur mintoni*, parrots, woodpeckers, Point-tailed Palmcreeper *Berlepschia rikeri*, antpittas, and many other species.

The Águas Claras road is another superb area, with the first steep uphill part, beyond the small camp, being excellent for seeing raptors and cotingas perched-up, especially in the early-morning hours, and also has the endemic Opal-crowned Manakin *Lepidothrix iris*. The stretch before the camp and the trail off to the left, just 250 m from the start of the road, are also worthy of prolonged effort, with Great Jacamar *Jacamerops aureus*, Collared Puffbird *Bucco capensis*, Brigida's Woodcreeper *Hylexetastes brigidai*, Chestnut-throated Spinetail, both Chestnut-belted *Conopophaga aurita* and Black-

bellied Gnateaters *C. melanogaster*, Zimmer's Tody-tyrant *Hemitriccus minimus*, Blackish Pewee *Contopus nigrescens*, and many others, possible in this area. The ridge area, further along the Águas Claras road, is characterised by somewhat drier forest and holds Brazilian endemics such as Pará Gnatcatcher *Polioptila paraensis*¹⁷ and White-naped Jay *Cyanocorax cyanopogon*, and a Harpy Eagle's *Harpia harpyja* nest was recently discovered just below this area.

One of the major roads across the serra is that known as the Salobo road, and its *terra firme* forests, interspersed with *canga*, are extremely productive areas for birding. Early morning provides good chances for cracids along this road, as well as many cotingas and other canopy-level species. Wing-banded Antbird *Myrmornis torquata* and Banded Antbirds *Dichrozona cincta* are specialities of the first part of the road, whilst large flocks of antbirds, tanagers, woodcreepers and flycatchers are a prominent feature of the birding along this stretch. Areas of *canga* are soon reached and hold an array of different species, including Pale-bellied Tyrant-manakin *Neopelma pallescens*, as well as being good spots from which to scour the nearby forest canopy for parrots and raptors. Further, the road descends towards the drainage of the rio Itacaiúnas, entering somewhat wetter forest with a different avifauna. Several short trails (e.g. that to Pojuca) opened by geologists working for the CVRD offer access to lower forest with a dense understorey, productive for Black-and-white Tody-tyrant, Peruvian Recurvebill, Black-chested Tyrant and many others. Early-morning visits to these areas should be an essential part of a visit to the Serra dos Carajás.

Information about birdwatching in Carajás can also be accessed on the internet. Visit www.arthur-grosset.com and follow the links via Jeremy Minns' site notes.

Acknowledgements

Firstly, we thank the Companhia Vale do Rio Doce and IBAMA for making these visits possible. We are especially grateful to Maria de Lourdes Davies de Freitas, Viviane Pacheco, Eduardo Porto, Mauricio Reis, Antonio Carlos Venâncio, Luiz Carlos Nepomuceno and Fabiano Gumier Costa for their efforts to provide us with necessary logistical support. Without their assistance the results of our work would have fallen short of what was achieved. Those of us who have visited in recent years have enjoyed the invaluable assistance of Joraci José Grigilo ('the Gaucho'), who has ably served as our monitor and has even become a keen birdwatcher in the process! Peter Boesman, Mark van Biers, Rupert Quinnell, Ricardo Parrini and Marcelo Vasconcelos are thanked for sending us their records from the area. We acknowledge the assistance of the many other observers who have joined us in the field in the Serra

dos Carajás, especially Arthur Grosset and William Price who provided photographs. The paper was refereed by Marcos Maldonado Coelho, Marcos Pérsio and Marcelo Vasconcelos, and we thank them for their assistance in making the paper more complete. We dedicate this contribution to the late Dr Fernando C. Novaes, who together with David C. Oren led the MPEG team in pioneering ornithological work in the Serra dos Carajás.

References

1. BirdLife International (2004) *Threatened birds of the world 2004*. CD-ROM. Cambridge, UK: BirdLife International.
2. BirdLife International (2006) Species factsheet: *Anodorhynchus hyacinthinus*. www.birdlife.org (accessed 8 December 2006).
3. Machado, A. B. M., Martins, C. S. & Drummond, G. M. (eds.) (2005) *Lista da fauna brasileira ameaçada de extinção. Incluindo as listas das espécies quase ameaçadas e deficientes de dados*. Belo Horizonte: Fundação Biodiversitas.
4. Novaes, F. C. (1987) Vertebrados terrestres da Serra Norte/Carajás. In: *Seminário sobre desenvolvimento econômico e impacto ambiental em áreas do trópico úmido brasileiro*, I. Belém.
5. Oren, D. C. (1985) Two new subspecies of birds from the canga vegetation, Serra dos Carajás, Pará, Brazil, and one from Venezuela. *Publ. Avulsas Mus. Paraense Emílio Goeldi* 40: 93–100.
6. Oren, D. C. (1987) A avifauna da região da Serra dos Carajás, Brasil. *Mem. III Congr. Orn. Neotrop., Cali*: 165–168.
7. Oren, D. C. (2001) Biogeografia e conservação de aves na região amazônica. In: Capobianco, J. P. R., Veríssimo, A., Moreira, A., Sawyer, D., Santos, I. & Pinto, L. P. (eds.) *Biodiversidade na Amazônia Brasileira: avaliação e ações prioritárias para a conservação, uso sustentável e repartição de benefícios*. São Paulo: Instituto Socioambiental.
8. Oren, D. C. & Novaes, F. C. (1985) A new subspecies of White Bellbird *Procnias alba* (Hermann) from southeastern Amazonia. *Bull. Brit. Orn. Club* 105: 23–25.
9. Oren, D. C. & Parker, T. A. (1997) Avifauna of the Tapajós National Park and vicinity, Amazonian Brazil. In: Remsen, J. V. (ed.) *Studies in Neotropical ornithology honoring Ted Parker*. Orn. Monogr. 48. Washington DC: American Ornithologists' Union.
10. Oren, D. C. & Silva, J. M. C. (1987) Cherrie's Spinetail (*Synallaxis cherriei*, Gyldenstolpe) (Aves: Furnariidae) in Carajás and Gorotire, Pará, Brazil. *Bol. Mus. Paraense Emílio Goeldi, sér. Zool.* 3(1): 1–9.
11. Remsen, J. V. (2003) Family Furnariidae (ovenbirds). In: del Hoyo, J., Elliott, A. & Christie, D. A. (eds.) *Handbook of the birds of the world*, 8. Barcelona: Lynx Edicions.
12. Roth, P., Oren, D. C. & Novaes, F. C. (1984) The White Bellbird (*Procnias alba*) in the Serra dos

- Carajás, southeastern Pará, Brazil. *Condor* 86: 343–344.
13. Sick, H. (1993) *Birds in Brazil: a natural history*. Princeton, NJ: Princeton University Press.
 14. Silva, J. M. C., Novaes, F. C. & Oren, D. C. (2002) Differentiation of *Xiphocolaptes* (Dendrocolaptidae) across the river Xingu, Brazilian Amazonia: recognition of a new phylogenetic species and biogeographic implications. *Bull. Brit. Orn. Club* 122: 185–196.
 15. Teixeira, D. M. & Luigi, G. (1993) Notas sobre *Poecilurus scutatus* (Sclater, 1859) (Aves, Furnariidae). *Iheringia, Sér. Zool.* 74: 117–124.
 16. Vasconcelos, M. F. (2005) A range extension for Dusky-tailed Flatbill *Ramphotrigon fuscicauda* in eastern Amazonia. *Bull. Brit. Orn. Club* 125: 314–315.
 17. Whitney, B. M. & Alvarez A., J. (2005) A new species of gnatcatcher from white-sand forests of northern Amazonian Peru with revision of the *Poliophtila guianensis* complex. *Wilson Bull.* 117: 113–127.
 18. Zimmer, K. J., Parker, T. A., Isler, M. L. & Isler, P. R. (1997) Survey of a southern Amazonian avifauna: the Alta Floresta region, Mato Grosso, Brazil. In: Remsen, J. V. (ed.) *Studies in Neotropical ornithology honoring Ted Parker*. Orn. Monogr. 48. Washington DC: American Ornithologists' Union.
 19. Zimmer, K. J. & Whittaker, A. (2004) Observations on the vocalisations and behaviour of Black-chested Tyrant *Taeniotriccus andrei* from the Serra dos Carajás, Pará, Brazil. *Cotinga* 22: 24–29.
- José Fernando Pacheco**
Comitê Brasileiro de Registros Ornitológicos, Rua Bambina 50, apto. 104, Rio de Janeiro, RJ, CEP 22251-050, Brazil.
- Guy M. Kirwan**
74 Waddington Street, Norwich NR2 4JS, UK.
- Alexandre Aleixo and Maria de Fátima C. Lima**
Museu Paraense Emílio Goeldi, Coordenação de Zoologia, Caixa Postal 399, CEP 66040-170, Belém, PA, Brazil.
- Bret M. Whitney**
Museum of Natural Science, 119 Foster Hall, Louisiana State University, Baton Rouge, LA 70803, USA.
- Andrew Whittaker**
Conjunto Acariquara, Rua Samaumas 214, Manaus, AM, CEP 69085-053, Brazil.
- Jeremy Minns**
Rua Itápolis 1570, São Paulo, SP, CEP 01245-000, Brazil.
- Kevin J. Zimmer**
1665 Garcia Road, Atascadero, California 93422, USA.
- Paulo Sérgio M. da Fonseca**
BNDES—Superintendência de Planejamento, Av. Chile 100, 140 andar, Rio de Janeiro, RJ, CEP 20139-000, Brazil.
- David C. Oren**
The Nature Conservancy, South America Conservation Region, SHIN, CA-05, Conj. J, Bloco B, 3º andar, Brasília, DF, CEP 71503-505, Brazil.

Appendix. List of 575 species recorded in the Serra dos Carajás, Pará, Brazil. Systematic order and scientific nomenclature follow the most up-to-date version (15 July 2006) of the Comitê Brasileiro de Registros Ornitológicos (CBRO) list (see www.cbro.org.br), with English names taken from Sick¹⁰, except in a few cases where more modern taxonomy has been followed. Abbreviations correspond to the regions and habitats in which species were observed by the authors in the study area. Regions: A = Carajás plateau; B = valley of the rio Parauapebas; and C = valley of the rio Itacaiúnas. Habitats: F = *terra firme* forest; Fr = riverine forest; Fb = forest edge; Ff = flooded forest; Ft = transitional forest (between *terra firme* forest and *canga*); Fe = forest on steep hillsides; R = river; C = *canga*; L = lake; A = aerial. Observer/s: 1 = Pacheco & Fonseca; 2 = Kirwan, Minns *et al.*; 3 = Whitney; 4 = Whittaker & Zimmer; 5 = Aleixo; 6 = Whittaker; 7 = non-author records (principally based on the complete lists provided by Boesman & van Beirs, and Vasconcelos). Evidence categories: P = good-quality photograph; p = poor-quality photograph; V = videotape; T = tape-recording; S = specimen (based on material held in the Museu Paraense Emílio Goeldi, Belém). *The identity of both the *Megascops* and *Campylorhamphus* at Carajás are currently unclear: KJZ, AW and AA are working on the *Campylorhamphus* issue, and AW and AA on the *Megascops* identification.

Cotinga 27

An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil

		Regions	Habitats	Observer/s	Photo	Tape- recorded	Specimen
TINAMIDAE							
Grey Tinamou	<i>Tinamus tao</i>	A B C	F	1,2,3,4,5,6,7		T	
Great Tinamou	<i>Tinamus major</i>	B C	Fr	1,3,5,6			
White-throated Tinamou	<i>Tinamus guttatus</i>	B C	F	1,2,3,5,6,7		T	
Cinereous Tinamou	<i>Crypturellus cinereus</i>	A B C	F, Fr, Ft	1,2,3,4,5,6		T	
Little Tinamou	<i>Crypturellus soui</i>	A B C	F, Fe	1,2,3,4,5,6,7		T	
Brown Tinamou	<i>Crypturellus obsoletus</i>	B	Fr	2			
Undulated Tinamou	<i>Crypturellus undulatus</i>	B C	Fr	1,2,3,6		T	
Brazilian Tinamou	<i>Crypturellus strigulosus</i>	A B C	F	1,2,3,4,5,6,7		T	
Variiegated Tinamou	<i>Crypturellus variegatus</i>	A B C	F	1,2,3,4,5,6,7			
Small-billed Tinamou	<i>Crypturellus parvirostris</i>	A	C	1,2,3,4,6,7		T	S
Tataupa Tinamou	<i>Crypturellus tataupa</i>	A	F, Ft	2,4,7			
Red-winged Tinamou	<i>Rhyrchotus rufescens</i>	A	C	2		T	
ANHIMIDAE							
Horned Screamer	<i>Anhima cornuta</i>	B	Ff	1,2,7			
ANATIDAE							
White-faced Whistling-duck	<i>Dendrocygna viduata</i>	A	L	2			
Muscovy Duck	<i>Cairina moschata</i>	B	R, A	1,2,4,6			
Brazilian Duck	<i>Amazonetta brasiliensis</i>	A	L	2,4,6		T	
CRACIDAE							
Little Chacalaca	<i>Ortalis motmot ruficeps</i>	A B C	Fr, Ft, Fb	1,2,7			S
Rusty-margined Guan	<i>Penelope supercilialis</i>	A B C	Ft, Fr, F	1,2,3,4,6,7	p		S
White-crested Guan	<i>Penelope pileata</i>	A B C	F, Fb, Fe	1,2,3,4,5,6,7	P	T	S
Red-throated Piping-guan	<i>Aburria kujubi</i>	A	C, F, Fb	1,2,3,5,6,7	P		S
Amazonian Razor-billed Curassow	<i>Mitu tuberosum</i>	A	C	F	1,2,3,5,6		S
Bare-faced Curassow	<i>Crax fasciolata</i>	A	C	F, Fb, Fe	1,2,3,5,6,7	P	S
ODONTOPHORIDAE							
Marbled Wood-quail	<i>Odontophorus gujanensis</i>	A B C	F, Fb, Ft	1,2,3,4,6,7	P	T	S
PODICIPEDIDAE							
Least Grebe	<i>Tachybaptus dominicus</i>	A B	L	1,2,6,7			S
PHALACROCORACIDAE							
Neotropic Cormorant	<i>Phalacrocorax brasilianus</i>	A B	L, R	1,2,4,7			
ANHINGIDAE							
Anhinga	<i>Anhinga anhinga</i>	B C	R, L	1,2,6,7			
ARDEIDAE							
Rufescent Tiger-heron	<i>Tigrisoma lineatum</i>	B C	R	1,5,6,7		T	
Zigzag Heron	<i>Zebrilus undulatus</i>	B	Fr	6			
Striated Heron	<i>Butorides striata</i>	A B C	L, R	1,2,3,4,6,7			
Cattle Egret	<i>Bubulcus ibis</i>	A B	L	1,2,4			
White-necked Heron	<i>Ardea cocoi</i>	A B	R, L	1,2,3,7			
Great Egret	<i>Ardea alba</i>	A B	L, R	1,2,7			
Capped Heron	<i>Ptilerodius pileatus</i>	B C	R, Ff, L	1,2,6,7			
THRESKIORNITHIDAE							
Green Ibis	<i>Mesembrinibis cayennensis</i>	A	C	R, Ff	1,4,6,7	T	
CICONIIDAE							
Maguari Stork	<i>Ciconia maguari</i>	A	A	2			
Wood Stork	<i>Mycteria americana</i>	A	C	A	7		
CATHARTIDAE							
Turkey Vulture	<i>Cathartes aura</i>	A B C	A, C, Fb	1,2,3,4,6,7			
Lesser Yellow-headed Vulture	<i>Cathartes burrovianus</i>	A	C	C, Fr	2,5		
Greater Yellow-headed Vulture	<i>Cathartes melambrotus</i>	A B C	A, Fb	1,2,3,4,5,6,7	p		S
Black Vulture	<i>Coragyps atratus</i>	A B C	A, C	1,2,3,4,6,7			
King Vulture	<i>Sarcoramphus papa</i>	A B C	A, F, Fb, Fe	1,2,3,4,5,6,7			S
ACCIPITRIDAE							
Grey-headed Kite	<i>Leptodon cayanensis</i>	A B C	Fr, Fb	1,6			
Hook-billed Kite	<i>Chondrohierax uncinatus</i>	B C	Fr, Fb	1,3,4			
American Swallow-tailed Kite	<i>Elanoides forficatus</i>	A B C	A, Fb	1,2,3,4,6,7	P		
Pearl Kite	<i>Gampsonyx swainsonii</i>	A B	C, Fb	1,2,3,7			
Snail Kite	<i>Rostrhamus sociabilis</i>	A B	Ff, A	1,2,6			
Slender-billed Kite	<i>Helicolestes hamatus</i>	B	Fr	6			
Double-toothed Kite	<i>Harpagus bidentatus</i>	A B	F	1,2,3,4,6,7	P		S

Cotinga 27**An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil**

Rufous-thighed Kite	<i>Harpagus diodon</i>	B	Fr	6			
Plumbeous Kite	<i>Ictinia plumbea</i>	A B C	A, F, Fb	1,2,3,4,5,6,7	p	T	S
Grey-bellied Hawk	<i>Accipiter poliogaster</i>	A B	F	2			
Tiny Hawk	<i>Accipiter superciliosus</i>	A	Ft	4,6			
Bicoloured Hawk	<i>Accipiter bicolor</i>	A	F, Ft	2,4,5			
Crane Hawk	<i>Geranospiza caerulescens</i>	B	Fb, Fr	1,2,4	p		
Slate-coloured Hawk	<i>Leucopternis schistaceus</i>	B	Fr	1,7			
White Hawk	<i>Leucopternis albicollis</i>	A	C A, F	1,2,3,4,6,7	p		S
Great Black-hawk	<i>Buteogallus urubitinga</i>	A B C	Fb, C, Ft, Fe	1,2,3,4,5,7		T	
Black-collared Hawk	<i>Busarellus nigricollis</i>	B	Ff	1			
Bay-winged Hawk	<i>Parabuteo unicinctus</i>	A	A	2	p		
Roadside Hawk	<i>Rupornis magnirostris</i>	A B	C, Ft, Fb	1,2,3,4,6,7		T	S
White-tailed Hawk	<i>Buteo albicaudatus</i>	A	C, A	1,2,3,4,6,7	P	T	
Grey Hawk	<i>Buteo nitidus</i>	A B C	F, Fb	1,2,3,4,6,7	P	T	
Broad-winged Hawk	<i>Buteo platypterus</i>	A	F	4,6			
Short-tailed Hawk	<i>Buteo brachyurus</i>	A	C	2,7			S
Crested Eagle	<i>Morphnus guianensis</i>	A	C F	2,4,5			
Harpy Eagle	<i>Harpia harpyja</i>	A B	F	1,2,4,6	P		
Black-and-white Hawk-eagle	<i>Spizaetus melanoleucus</i>	A	C Fb	2	P		
Black Hawk-eagle	<i>Spizaetus tyrannus</i>		C Fe	1,2,4,6,7		T	
Ornate Hawk-eagle	<i>Spizaetus ornatus</i>	A	C C, F, Fb	1,2,5,6,7	P	T	
FALCONIDAE							
Black Caracara	<i>Daptrius ater</i>	A	C Fr, Fb	1,2,3,4,5,6,7	p		
Red-throated Caracara	<i>Ibycter americanus</i>	A B C	F, Fb, Fe	1,2,3,4,5,6,7	p	T	S
Southern Caracara	<i>Caracara plancus</i>	A B	A, Fr, C	1,2,6			
Yellow-headed Caracara	<i>Milvago chimachima</i>	A B	A, C	1,2,6			
Laughing Falcon	<i>Herpetotheres cachinnans</i>	A B C	Fb	1,2,3,4,6,7	P	T	
Barred Forest-falcon	<i>Micrastur ruficollis</i>	A B C	F, Ft	1,2,3,4,5,6		T	
Cryptic Forest-falcon	<i>Micrastur mintoni</i>	A B C	F	1,2,3,4,5,6,7		T	S
Slaty-backed Forest-falcon	<i>Micrastur mirandollei</i>	A B C	F, Fb	1,2,3,4,5,6		T	
Collared Forest-falcon	<i>Micrastur semitorquatus</i>		C F	5			
Bat Falcon	<i>Falco rufigularis</i>	A B C	Fb, Ft, C	1,2,3,4,5,6,7	p	T	S
Orange-breasted Falcon	<i>Falco deiroleucus</i>	A	F, C	4,6			
Aplomado Falcon	<i>Falco femoralis</i>	A	C	1,2			
ARAMIDAE							
Limpkin	<i>Aramus guarauna</i>	A B	Ff, L	1,2,6			
PSOPHIDAE							
Dark-winged Trumpeter	<i>Psophia viridis</i>	A	C F	1,2,4,5,7			
RALLIDAE							
Grey-necked Wood-rail	<i>Aramides cajanea</i>	A B C	Ff, Fb	1,2,3,4,5,7		T	
Uniform Crane	<i>Amaurolimnas concolor</i>	B	Ff	1			
Russet-crowned Crane	<i>Laterallus viridis</i>	A	C	1,2,3,4,7		T	S
Rufous-sided Crane	<i>Laterallus melanophaius</i>	A B	L, Ff	1,2,3,4,6		T	
Grey-breasted Crane	<i>Laterallus exilis</i>	A	Fb, C	1,2,3,4,6,7		T	
Ash-throated Crane	<i>Porzana albicollis</i>	A	C	2,3,4,6,7		T	
Purple Gallinule	<i>Porphyrio martinica</i>	A	L	2,4		T	
HELIORNITHIDAE							
Sungrebe	<i>Heliornis fulica</i>		C Ff	1			
EURPYGIDAE							
Sunbittern	<i>Eurypyga helias</i>		C Fr	1			
CHARADRIIDAE							
Pied Plover	<i>Vanellus cayanus</i>		C R	1,3			
Southern Lapwing	<i>Vanellus chilensis</i>	A B	L, Ff	1,2,3,4,6,7	p	T	
American Golden Plover	<i>Pluvialis dominica</i>	A	L	2	p		
Collared Plover	<i>Charadrius collaris</i>	A	L, Ff	1			
SCOLOPACIDAE							
South American Snipe	<i>Gallinago paraguaiiae</i>	A	L, Ff	1,2,4,6,7		T	
Solitary Sandpiper	<i>Tringa solitaria</i>	A	C L, Ff	1,2,3,4,6,7		T	S
Greater Yellowlegs	<i>Tringa melanoleuca</i>	A	L	2,6			
Lesser Yellowlegs	<i>Tringa flavipes</i>	A	L	2			
Spotted Sandpiper	<i>Actitis macularius</i>	A	L, Ff	1,2,6			
White-rumped Sandpiper	<i>Calidris fuscicollis</i>	A	L				S
Stilt Sandpiper	<i>Calidris himantopus</i>	A	L				S
JACANIDAE							
Wattled Jacana	<i>Jacana jacana</i>	A B	L, Ff	1,2,3,4,6,7	p		

Cotinga 27**An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil**

LARIDAE								
Black Skimmer	<i>Rynchops niger</i>	A		airport		2		
COLUMBIDAE								
Ruddy Ground-dove	<i>Columbina talpacoti</i>	A	B C	C, R, Fb		1,2,3,4,6,7		
Blue Ground-dove	<i>Claravis pretiosa</i>	A	B C	Fr, Fb, Fe		1,2,3,6	T	S
Rock Dove	<i>Columba livia domestica</i>	A		urban area		1,2		
Scaled Pigeon	<i>Patagioenas speciosa</i>	A		C F, Fb, C		1,2,3,4,5,6,7	P	
Pale-vented Pigeon	<i>Patagioenas cayennensis</i>	A	B	Ft		1,2,3,6,7	T	
Plumbeous Pigeon	<i>Patagioenas plumbea</i>	A		C F		2,5,7		
Ruddy Pigeon	<i>Patagioenas subvinacea</i>	A	B C	F, Ft		1,2,3,4,5,6,7	T	
White-tipped Dove	<i>Leptotila verreauxi</i>	A	B C	Ft, Fb, Fr, F, C		1,2,4,5,6,7	T	S
Grey-fronted Dove	<i>Leptotila rufaxilla</i>	A	B C	F, Fb, Fe		1,2,3,4,5,6,7	T	S
Ruddy Quail-dove	<i>Geotrygon montana</i>	A	B C	F, Fe, Fr		1,2,3,4,5,6,7	T	S
PSITTACIDAE								
Hyacinth Macaw	<i>Anodorhynchus hyacinthinus</i>	A	B C	Fb, F		1,2,3,4,5,6,7	P T	S
Blue-and-yellow Macaw	<i>Ara ararauna</i>	A	B	F, Fb		1,2,3,6	p	
Scarlet Macaw	<i>Ara macao</i>	A	B C	F		1,2,3,4,6	p T	
Red-and-green Macaw	<i>Ara chloropterus</i>	A	B C	F, Fb		1,2,3,4,5,6,7	P T	S
Chestnut-fronted Macaw	<i>Ara severus</i>	A	B C	Fr, F, Fb		1,2,3,4,6,7	P T	S
White-eyed Parakeet	<i>Aratinga leucophthalma</i>	A	B C	Fb, F		1,2,3,4,5,6,7	T	
Jandaya Parakeet	<i>Aratinga jandaya</i>	A		Ft, C		1,2,3,6,7	T	S
Pearly Parakeet	<i>Pyrrhura lepida</i>		B C	F, Fb		1,2,3,4,6,7	p T	
Hellmayr's Parakeet	<i>Pyrrhura amazonum</i>	A	B C	F, Fb, Fe, Ft		1,2,3,4,5,6	p T	S
Blue-winged / Green-rumped Parrotlet	<i>Forpus xanthopterygius / passerinus</i>			C Fb		5		
Golden-winged Parakeet	<i>Brotogeris chrysoptera</i>	A	B C	F, Fb		1,2,3,4,5,6,7	p	
Scarlet-shouldered Parrotlet	<i>Touit huetii</i>	A	B	F, C		1,2,3,6	T	
White-bellied Parrot	<i>Pionites leucogaster</i>		B C	Fr		1,2,3,4,5,6	p T	
Vulturine Parrot	<i>Gypopsitta vulturina</i>	A	B C	Fr, Fb, Fe		1,2,3,4	T	
Blue-headed Parrot	<i>Pionus menstruus</i>	A	B C	F, Fb, Fe		1,2,3,4,6,7	T	S
Yellow-headed Parrot	<i>Amazona ochrocephala</i>	A	B C	Ft, Fr, Fb, F		1,3,4,6		
Orange-winged Parrot	<i>Amazona amazonica</i>	A	B C	Fr, Fb, Ft		1,2,3,4,5		
Mealy Parrot	<i>Amazona farinosa</i>	A	B C	F		1,2,3,4,5,6,7	T	
Red-fan Parrot	<i>Deroptyus accipitrinus</i>		B C	F		1,2,3,4,5,6,7	P T	
OPISTHOCOMIDAE								
Hoatzin	<i>Opisthocomus hoazin</i>		B C	Ff		1,2,3,4,7	V T	S
CUCULIDAE								
Yellow-billed / Pearly-breasted Cuckoo	<i>Coccyzus americanus / euleri</i>	A		Fe		4		
Dark-billed Cuckoo	<i>Coccyzus melacoryphus</i>	A	B C	Fr, C		1,2		S
Squirrel Cuckoo	<i>Piaya cayana</i>	A	B C	Ft, F, Fb, Fe, Fr, C		1,2,3,4,5,6,7	T	S
Little Cuckoo	<i>Coccyua minuta</i>	A	B C	F, C		1,2,4	T	
Greater Ani	<i>Crotophaga major</i>	A	B	Fr, Ff		1,2,6		
Smooth-billed Ani	<i>Crotophaga ani</i>	A	B C	C, Fb		1,2,3,4,5,6,7	p T	
Striped Cuckoo	<i>Tapera naevia</i>	A	B C	C, Ft, Fr		1,2,5,6,7	p	S
Pheasant Cuckoo	<i>Dromococcyx phasianellus</i>	A	C	Fr, Fb, C		1,3,4,5	T	
Pavonine Cuckoo	<i>Dromococcyx pavoninus</i>	A	C	F		1,2,3,5,6	T	
TYTONIDAE								
Barn Owl	<i>Tyto alba</i>	A		C, Fb		1,6		S
STRIGIDAE								
Tropical Screech-owl	<i>Megascops choliba</i>			C Fb		5,7	T	
Southern Tawny-bellied Screech-owl*	<i>Megascops usta</i>	A	B C	F		1,3,4,5,7		
screech-owl sp.	<i>Megascops sp. (guatemalae)</i>			C F		1,4,6	p T	
Crested Owl	<i>Lophotrix cristata</i>	A		C F		1,3,6		
Spectacled Owl	<i>Pulsatrix perspicillata</i>	A	B C	F, Fb		1,2,3,6,7	T	
Black-banded Owl	<i>Strix huhula</i>	A		C F		1,3	T?	
Amazonian Pygmy-owl	<i>Glauclidium hardyi</i>	A	B C	F		1,2,3,5,6,7	T	
NYCTIBIIDAE								
Great Potoo	<i>Nyctibius grandis</i>			C F		1,2,5	P	
Common Potoo	<i>Nyctibius griseus</i>	A	B C	Fb, F		1,4,5,6,7		
CAPRIMULGIDAE								
Short-tailed Nighthawk	<i>Lurocalis semitorquatus</i>	A	B C	Fb		1,3,4,5,6,7		
Lesser Nighthawk	<i>Chordeiles acutipennis</i>	A		C/A		2		
Pauraque	<i>Nyctidromus albicollis</i>	A	B C	Fb		1,2,4,5,6,7	P T	
Rufous Nightjar	<i>Caprimulgus rufus</i>	A	B	Ft, Fb, Fr, F		1,2,3,6	T	
Silky-tailed Nightjar	<i>Caprimulgus sericocaudatus</i>	A		Fb		6,7	P T	
Spot-tailed Nightjar	<i>Caprimulgus maculicaudus</i>	A		C		2,4,6		

Cotinga 27**An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil**

Little Nightjar	<i>Caprimulgus parvulus</i>	A		Fb	2,7				
Blackish Nightjar	<i>Caprimulgus nigrescens</i>	A	B	C	Fb, F, Fe	1,2,3,4,5,6,7	p	T	S
Scissor-tailed Nightjar	<i>Hydropsalis torquata</i>	A		C	C	1,2,4,7			S
Ladder-tailed Nightjar	<i>Hydropsalis climacocerca</i>			C	Fb	2			
APODIDAE									
swift sp.	<i>Cypseloides</i> sp.	A		C	A	4			
Sooty Swift	<i>Cypseloides fumigatus</i>			C	A	3			
White-collared Swift	<i>Streptoprocne zonaris</i>	A			A	2,6			
Band-rumped Swift	<i>Chaetura spinicaudus</i>	A	B	C	A	1,2,3,4,5,7			
Grey-rumped Swift	<i>Chaetura cinereiventris</i>	A		C	A	2,4,5,6,7			
Pale-rumped Swift	<i>Chaetura egregia</i>	A		C	A	2,4,6		T	
Amazonian Swift	<i>Chaetura viridipennis</i>	A	B	C	A	1,2,3,4,6			
Sick's Swift	<i>Chaetura meridionalis</i>	A		C	A	2,5			
Short-tailed Swift	<i>Chaetura brachyura</i>	A	B	C	A	1,2,3,4,6,7		T	
Fork-tailed Palm-swift	<i>Tachornis squamata</i>	A	B		A, C (Buriti)	1,2,3,4,6,7			
Lesser Swallow-tailed Swift	<i>Panyptila cayennensis</i>	A	B		A	1,2,3,4,6	p (nest)		
TROCHILIDAE									
Rufous-breasted Hermit	<i>Glaucis hirsutus</i>		B	C	F	1,2,3,5,6		T	S
Reddish Hermit	<i>Phaethornis ruber</i>	A	B	C	Fb, Fe, Fr, Ft	1,2,3,4,5,6,7			S
Cinnamon-throated Hermit	<i>Phaethornis nattereri</i>			C	F	2			
White-bearded Hermit	<i>Phaethornis hispidus</i>	A	B	C	F, Fb	1,2,3			
Long-tailed Hermit	<i>Phaethornis superciliosus</i>	A	B	C	F, Fe	1,2,3,4,5,6			S
Grey-breasted Sabrewing	<i>Campylopterus largipennis</i>	A		C	Ft, Fr	1,2,3,4,6,7			S
Swallow-tailed Hummingbird	<i>Eupetomena macroura</i>	A			Fb	2,4			
White-necked Jacobin	<i>Florisuga mellivora</i>	A		C	F, Fe, Fb	1,4,3,5,6,7			S
White-vented Violetear	<i>Colibri serrirostris</i>	A			C	2			
Black-throated Mango	<i>Anthracothorax nigricollis</i>	A		C	C, Ft, Fb	1,2,3,4,6,7	p		S
Fiery-tailed Awbill	<i>Avocettula recurvirostris</i>	A			Ft	2,4,6,7		T	
Ruby-topaz Hummingbird	<i>Chrysolampis mosquitus</i>	A			C				S
Dot-eared Coquette	<i>Lophornis gouldii</i>			C	Fb	2,3			
Black-bellied Thorntail	<i>Discosura langsdorffi</i>	A			Fb	7			
Blue-chinned Sapphire	<i>Chlorestes notata</i>	A			Fb	1,2,6			
Fork-tailed Woodnymph	<i>Thalaurania furcata</i>	A	B	C	F, Fb, Fe, Fr	1,2,3,4,6,7	p		S
Rufous-throated Sapphire	<i>Hylocharis sapphirina</i>	A		C	F, Fr, Fb	1,2,3,4,5,6,7			
White-chinned Sapphire	<i>Hylocharis cyanus</i>	A		C	Fr, Ft	1,2,3,6			
Green-tailed Goldenthrout	<i>Polytmus theresiae</i>			B	Ff	1			
Versicoloured Emerald	<i>Amazilia versicolor</i>	A			F, Ft	1,2,6			
Glittering-throated Emerald	<i>Amazilia fimbriata</i>	A			C	1,2,3,4,6,7			
Black-eared Fairy	<i>Heliodytes auritus</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Long-billed Starthroat	<i>Heliothraupis longirostris</i>	A		C	Fb	1,2,3,4,5,6,7	p		S
Amethyst Woodstar	<i>Calliphlox amethystina</i>	A			Fb	1,6			
TROGONIDAE									
White-tailed Trogon	<i>Trogon viridis</i>	A	B	C	F, Fe, Fr	1,2,3,4,5,6,7	p	T	
Blue-crowned Trogon	<i>Trogon curucui</i>		B	C	F, Fr	2,5	p		
Violaceous Trogon	<i>Trogon violaceus</i>	A	B	C	F, Fe	1,2,3,4,5,6,7	p	T	
Black-throated Trogon	<i>Trogon rufus</i>	A	B	C	F	2,4,5,6	p	T	
Black-tailed Trogon	<i>Trogon melanurus</i>	A	B	C	F, Fe	1,2,3,4,5,6,7		T	
ALCEDINIDAE									
Ringed Kingfisher	<i>Ceryle torquatus</i>		B	C	R, L	1,2,4,6			
Amazon Kingfisher	<i>Chloroceryle amazona</i>		B		R, L	1,2,3,7			
Green Kingfisher	<i>Chloroceryle americana</i>	A	B	C	R, Ff, L	1,2,4,6,7			
Green-and-rufous Kingfisher	<i>Chloroceryle inda</i>		B	C	Ff	1,2,4,6	p		S
American Pygmy Kingfisher	<i>Chloroceryle aenea</i>		B		Ff	1			
MOMOTIDAE									
Blue-crowned Motmot	<i>Momotus momota</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
GALBULIDAE									
Brown Jacamar	<i>Brachygalba lugubris</i>	A		C	Fr	1,2,3,4,7	p	T	S
Bluish-necked Jacamar	<i>Galbula cyanicollis</i>	A	B	C	F, Fb	1,2,3,4,5,6,7	p	T	S
Rufous-tailed Jacamar	<i>Galbula ruficauda</i>		B	C	F, Fr	1,2,3,4,5,6,7	p	T	
Paradise Jacamar	<i>Galbula dea</i>	A	B	C	Fb, Fr	1,2,3,5,6,7		T	
Great Jacamar	<i>Jacamerops aureus</i>	A	B	C	F, Fe	1,2,3,4,5,6,7	p	T	
BUCCONIDAE									
White-necked Puffbird	<i>Notharchus hyperrhynchus</i>	A	B	C	F, Fr	1,2,3,4,5,6		T	
Pied Puffbird	<i>Notharchus tectus</i>	A	B	C	F, Fb, Fe	1,2,3,4,5,6,7	p		S
Collared Puffbird	<i>Bucco capensis</i>	A	B	C	F	1,2,3,4,6	V	T	S
Spotted Puffbird	<i>Bucco tamatia</i>	A			Fb	2			

Cotinga 27

An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil

Striolated Puffbird	<i>Nystalus striolatus</i>	A	B	C	F	1,2,3,4,5,6,7	P	T	
Rufous-necked Puffbird	<i>Malacoptila rufa</i>	A		C	F	1,2,3,6,7		T	S
Rufous-capped Nunlet	<i>Nannula ruficapilla</i>	A	B	C	F, Fr	1,2,3,4,7		T	
Black-fronted Nunbird	<i>Monasa nigrifrons</i>	A	B	C	Fb, Fr	1,2,3,4,6,7	p	T	S
White-fronted Nunbird	<i>Monasa morphoeus</i>	A	B	C	F, Fe	1,2,3,4,5,6,7	p	T	S
Swallow-wing	<i>Chelidoptera tenebrosa</i>	A	B	C	Fb	1,2,3,4,5,6,7		T	S
CAPITONIDAE									
Black-girdled Barbet	<i>Capito dayi</i>			C	F	1			
RAMPHASTIDAE									
Red-billed Toucan	<i>Ramphastos tucanus</i>	A	B	C	F, Fb, Fe, Fr	1,2,3,4,5,6,7	P	T	
Channel-billed Toucan	<i>Ramphastos vitellinus</i>	A	B	C	F, Fb, Fe, Fr	1,2,3,4,5,6,7		T	
Gould's Toucanet	<i>Selenidera gouldii</i>	A	B	C	F	1,2,3,4,5,6,7	P	T	
Lettered Araçari	<i>Pteroglossus inscriptus</i>	A	B	C	F, Fb	1,2,3,4,5,6,7	p		
Red-necked Araçari	<i>Pteroglossus bitorquatus</i>	A	B	C	F	1,2,3,4,6,7			S
Black-necked Araçari	<i>Pteroglossus aracari</i>	A	B	C	F, Fb, Fe	1,2,3,4,5,6,7	p	T	S
PICIDAE									
Gold-fronted Piculet	<i>Picumnus aurifrons</i>	A	B	C	F, Fb	1,2,3,4,5,6,7	p	T	
Yellow-tufted Woodpecker	<i>Melanerpes cruentatus</i>	A	B	C	F, Fe, Fb	1,2,3,4,5,6,7		T	S
Little Woodpecker	<i>Veniliornis passerinus</i>	A	B	C	Fb, Fr, F	1,2,3			
Red-stained Woodpecker	<i>Veniliornis affinis</i>	A	B	C	F, Fb	1,2,3,4,5,6,7		T	S
White-throated Woodpecker	<i>Piculus leucolaemus</i>	A	B	C	F, Fr	1,2,3,4,5,6,7	p	T	S
Yellow-throated Woodpecker	<i>Piculus flavigula</i>	A	B	C	F	1,2,3,4,5,6,7	p	T	S
Golden-green Woodpecker	<i>Piculus chrysochloros</i>	A			Ft	2,4,5,6,7	p		
Green-barred Woodpecker	<i>Colaptes melanochloros</i>		B	C	Fr	6,7		T	
Campo Flicker	<i>Colaptes campestris</i>	A			C	2			
Waved Woodpecker	<i>Ceuleus undatus</i>	A	B	C	Fb, Fr	1,2,3,4,5,6		T	
Chestnut Woodpecker	<i>Ceuleus elegans</i>	A		C	Fr, F	1,2,4,6,7	P	T	S
Blond-crested Woodpecker	<i>Ceuleus flavescens</i>	A		C	F	2,5			
Cream-coloured Woodpecker	<i>Ceuleus flavus</i>	A	B	C	F, Fr	1,2,3,4,5,6,7		T	
Ringed Woodpecker	<i>Ceuleus torquatus</i>	A	B	C	F	1,2,3,4,6,7		T	S
Lineated Woodpecker	<i>Dryocopus lineatus</i>	A	B	C	Ft, F, Fb, Fr	1,2,3,4,5,6	p	T	S
Red-necked Woodpecker	<i>Campephilus rubricollis</i>	A	B	C	F, Fe	1,2,3,4,5,6,7	p	T	
Crimson-crested Woodpecker	<i>Campephilus melanoleucos</i>		B	C	F, Fr	1,2,3,4,5,6,7	p	T	
THAMNOPHILIDAE									
Fasciated Antshrike	<i>Cymbailimus lineatus</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Great Antshrike	<i>Taraba major</i>	A	B	C	C, Ft, Fr	1,2,3,4,5,6,7		T	S
Glossy Antshrike	<i>Sakesphorus luctuosus</i>		B	C	Fr	1,2,3,4,5,6,7		T	S
Barred Antshrike	<i>Thamnophilus doliatus</i>	A			Fb	2,4,7		T	
Chestnut-backed Antshrike	<i>Thamnophilus palliatus</i>	A			C, Fb	7		T	
Blackish-grey Antshrike	<i>Thamnophilus nigrocinereus</i>		B	C	Ff	2		T	
White-shouldered Antshrike	<i>Thamnophilus aethiops</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Plain-winged Antshrike	<i>Thamnophilus schistaceus</i>	A	B	C	F, Fe, Fr	1,2,3,4,5,6,7	p	T	S
Natterer's Slaty-antshrike	<i>Thamnophilus stictocephalus</i>	A	B	C	Ft, F, Fb, Fr	1,2,3,4,5,6,7	p	T	S
Amazonian Antshrike	<i>Thamnophilus amazonicus</i>		B	C	Fr	1,2,3,4,6		T	
Rufous-winged Antshrike	<i>Thamnophilus torquatus</i>	A			C	1,2,3,4,6,7		T	S
Cinereous Antshrike	<i>Thamnomanes caesius</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Spot-winged Antshrike	<i>Pygiptila stellaris</i>		B	C	F, Fr	1,2,3,4,5,6,7		T	
White-eyed Antwren	<i>Myrmotherula leucophthalma</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Ornate Antwren	<i>Myrmotherula ornata</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Pygmy Antwren	<i>Myrmotherula brachyura</i>	A	B	C	F, Fe, Fr, Ft	1,2,3,4,5,6,7	p	T	S
Slater's Antwren	<i>Myrmotherula sclateri</i>	A	B		F	2		T	
Amazonian Streaked-antwren	<i>Myrmotherula multostriata</i>		B	C	Fr	1,2,3,4,5,6,7		T	
Plain-throated Antwren	<i>Myrmotherula huxwelli</i>	A	B	C	F	1,2,3,4,5,6,7	p	T	S
White-flanked Antwren	<i>Myrmotherula axillaris</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Long-winged Antwren	<i>Myrmotherula longipennis</i>	A	B	C	F, Fe	1,2,3,4,5,6,7		T	S
Grey Antwren	<i>Myrmotherula menetriesii</i>	A	B	C	F, Fe	1,2,3,4,5,6,7	p	T	S
Banded Antbird	<i>Dichrozona cincta</i>	A	B	C	F	2,6		T	S
Rufous-winged Antwren	<i>Herpsilochmus rufimarginatus</i>	A	B	C	F, Fe	1,2,3,4,5,6,7		T	
Dot-winged Antwren	<i>Microhoppia quixensis</i>		B		Ff	2,4,6		T	
White-fringed Antwren	<i>Formicivora grisea</i>	A		C	C, Fr, Ft	1,2,3,4,6,7		T	S
Grey Antbird	<i>Cercomacra cinerascens</i>	A	B	C	F, Fe, Fr	1,2,3,4,5,6,7		T	
Blackish Antbird	<i>Cercomacra nigrescens</i>	A	B	C	F, Fe, Fr	1,2,3,4,5,6,7		T	S
White-backed White-eye	<i>Pyriglena leuconota</i>	A	B	C	F, Fb	1,2,3,4,5,6,7	p	T	S
White-browed Antbird	<i>Myrmoborus leucophrys</i>	A	B	C	F, Fr	1,2,3,4,5,6,7	p	T	S
Black-faced Antbird	<i>Myrmoborus myiotherinus</i>	A	B	C	F, Fe, Fr	1,2,3,4,5,6,7	P	T	S
Warbling Antbird	<i>Hypocnemis cantator</i>	A	B	C	F, Fe, Ft	1,2,3,4,5,6,7	P	T	S
Band-tailed Antbird	<i>Hypocnemoides maculicauda</i>		B	C	Ff	1,3,6		T	

Cotinga 27

An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil

Silvered Antbird	<i>Sclateria naevia</i>	A	B	C	Fr	2,4,5,6	p	T	
Spot-winged Antbird	<i>Percnostola leucostigma</i>	A	B	C	Ff, Fr	1,2,3,4,5,6		T	S
Wing-banded Antbird	<i>Myrmornis torquata</i>	A			F	1,2,4,7	p	T	S
Spot-backed Antbird	<i>Hylophylax naevius</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Dot-backed Antbird	<i>Hylophylax punctulatus</i>	A	B	C	F, Ff	1,2,3,4,5,6,7		T	S
Scale-backed Antbird	<i>Hylophylax poecilnotus</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Black-spotted Bare-eye	<i>Phlegopsis nigromaculata</i>	A	B	C	F, Fb	1,2,3,4,5,6		T	S
CONOPOPHAGIDAE									
Chestnut-belted Gnateater	<i>Conopophaga aurita</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Black-bellied Gnateater	<i>Conopophaga melanogaster</i>	A	B	C	F	1,2,3,4,6,7	P,V	T	S
GRALLARIIDAE									
Variagated Antpitta	<i>Grallaria varia</i>	A	B	C	F	1,2,3,4,6,7		T	
Spotted Antpitta	<i>Hylopezus macularius</i>		B	C	F	1,2,3,5,7		T	
Amazonian Antpitta	<i>Hylopezus berlepschi</i>	A	B	C	F, Ff, Fr	1,2,3,4,5,6,7		T	S
FORMICARIIDAE									
Rufous-capped Antthrush	<i>Formicarius colma</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Black-faced Antthrush	<i>Formicarius analis</i>	A	B	C	F, Fe	1,2,3,4,5,6,7		T	S
SCLERURIDAE									
Tawny-throated Leaftosser	<i>Sclerurus mexicanus</i>	A	B	C	F	1,2,3,4,5,6,7		T	
Short-billed Leaftosser	<i>Sclerurus rufigularis</i>	A		C	F	1,3,5			S
Black-tailed Leaftosser	<i>Sclerurus caudacutus</i>	A		C	F	1,3,5		T	S
DENDROCOLAPTIDAE									
Plain-brown Woodcreeper	<i>Dendrocincla fuliginosa</i>	A	B	C	F, Fe	1,2,3,4,5,6,7		T	S
White-chinned Woodcreeper	<i>Dendrocincla merula</i>	A		C	F, Fe	1,2,4,6		T	S
Long-tailed Woodcreeper	<i>Deconychura longicauda</i>		B	C	F, Fe	1,2,3,4,5,6		T	
Spot-throated Woodcreeper	<i>Deconychura stictolaema</i>	A	B		F, Fr	2,4,6,7		T	S
Olivaceous Woodcreeper	<i>Sittasomus griseicapillus</i>	A	B	C	F, Fb, Fe	1,2,3,4,5,6,7		T	S
Wedge-billed Woodcreeper	<i>Glyphorhynchus spirurus</i>	A	B	C	F, Fe	1,2,3,4,5,6,7		T	S
Long-billed Woodcreeper	<i>Nasica longirostris</i>			C	Fr, F	1			
Cinnamon-throated Woodcreeper	<i>Dendrexetastes rufigula</i>		B	C	F, Fr	1,2,4,5,6,7	p	T	
Brigida's Woodcreeper	<i>Hylexetastes brigidai</i>	A		C	F, Ft	2,4,6		T	S
Carajás Woodcreeper	<i>Xiphocolaptes carajaensis</i>	A	B	C	F, Fe	1,2,3,4,5,6,7		T	S
Amazonian Barred Woodcreeper	<i>Dendrocolaptes certhia concolor</i>	A	B	C	F, Fe	1,2,3,4,5,7		T	S
Black-banded Woodcreeper	<i>Dendrocolaptes picumnus</i>	A	B	C	F, Fe	1,2,3,5,6		T	S
Straight-billed Woodcreeper	<i>Xiphorhynchus picus</i>	A	B	C	Ft, Fr, Fb	1,2,3,4,6,7		T	S
Spix's Woodcreeper	<i>Xiphorhynchus spixii</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Striped Woodcreeper	<i>Xiphorhynchus obsoletus</i>		B		Fr	2,6		T	
Buff-throated Woodcreeper	<i>Xiphorhynchus guttatus</i>	A	B	C	F, Fe, Fr	1,2,3,4,5,6	p	T	S
Narrow-billed Woodcreeper	<i>Lepidocolaptes angustirostris</i>	A		C		1,3			
Lineated Woodcreeper	<i>Lepidocolaptes albolineatus</i>	A	B	C	F, Fe	1,2,3,4,5,6,7	p	T	
Red-billed / Curve-billed Scythebill*	<i>Campylorhynchus trochilirostris / C. procurvoides</i>	A		C	F	1,2,4,5,6		T	S
FURNARIIDAE									
Sooty-fronted Spinetail	<i>Synallaxis frontalis</i>	A			C	1,2,3,4,6,7	p	T	S
Pale-breasted Spinetail	<i>Synallaxis albescens</i>	A			C	2,4		T	
Ruddy Spinetail	<i>Synallaxis rutilans</i>	A	B	C	F, Fe, Fr	1,2,3,5		T	S
Chestnut-throated Spinetail	<i>Synallaxis cherriei</i>	A	B	C	F	1,2,4,5,6,7		T	S
Plain-crowned Spinetail	<i>Synallaxis gujanensis</i>		B		Fr	4,6			
Ochre-cheeked Spinetail	<i>Synallaxis scutata</i>	A			C, Ft	1,2,3,4,6		T	S
Speckled Spinetail	<i>Cranioleuca gutturata</i>			C	Fr	1,2,3		T?	
Point-tailed Palmcreeper	<i>Berlepschia nikeri</i>		B	C	Fr	1,2,3,4,5,6	p	T	
Peruvian Recurvebill	<i>Syndactyla ucyalae</i>	A	B	C	F	2,4,6		T	S
Striped Woodhaunter	<i>Hylotistes subulatus</i>	A			F	2		T	
Rufous-tailed Foliage-gleaner	<i>Philydor ruficaudatum</i>	A	B	C	F	1,2,3,4,6,7		T	
Rufous-rumped Foliage-gleaner	<i>Philydor erythrocerum</i>	A	B	C	F, Fe	1,2,3,4,5,6		T	S
Chestnut-winged Foliage-gleaner	<i>Philydor erythropterum</i>		C		F	2,4,5			
Cinnamon-rumped Foliage-gleaner	<i>Philydor pyrrhodes</i>		B	C	F, Fr	1,2,3,4,5,6		T	S
Buff-throated Foliage-gleaner	<i>Automolus ochrolaemus</i>			C	Fr	2,5		-	
Pará Foliage-gleaner	<i>Automolus paraensis</i>	A	B	C	F, Fe	1,2,3,4,5,6,7	P	T	S
Chestnut-crowned Foliage-gleaner	<i>Automolus rufipileatus</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
Slender-billed Xenops	<i>Xenops tenuirostris</i>			C	F	1,2,3,4	p		
Plain Xenops	<i>Xenops minutus</i>	A	B	C	F, Fr	1,2,3,4,5,6,7	p	T	S
TYRANNIDAE									
Ochre-bellied Flycatcher	<i>Mionectes oleagineus</i>	A	B	C	F	1,2,3,4,6,7		T	S
McConnell's Flycatcher	<i>Mionectes macconnelli</i>	A		C	F	1,2,3,6		T	S
Sepia-capped Flycatcher	<i>Leptopogon amaurocephalus</i>			C	F	1,2,4,6			

Cotinga 27

An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil

Ringed Antpiper	<i>Corythobis torquatus</i>	A	C	F	1,2		
Helmeted Pygmy-tyrant	<i>Lophotriccus galeatus</i>	A	B	C	F	1,2,3,4,5,7	p T
Sneathlège's Tody-tyrant	<i>Hemitriccus minor</i>	A	B	C	F, Ft, Fe	1,2,3,4,5,6,7	T S
White-bellied Tody-tyrant	<i>Hemitriccus griseipectus</i>	A	B	C	F	1,2,3,4,5,6,7	T S
Pearly-vented Tody-tyrant	<i>Hemitriccus margaritaceiventer</i>	A		C		1,2,3,4,6,7	p T S
Zimmer's Tody-tyrant	<i>Hemitriccus minimus</i>	A	B	C	F	2,4,5,6	P,V T S
Black-and-white Tody-tyrant	<i>Poecilatriccus capitalis</i>		B	C	F	1,2,3,4,5,6,7	P,V T S
Slate-headed Tody-flycatcher	<i>Poecilatriccus sylvia</i>		B	C	F, Fr	1,2,3,4,6,7	T
Black-chested Tyrant	<i>Taeniotriccus andrei</i>	A	B	C	Fe, F	1,2,4,6,7	P,V T S
Spotted Tody-flycatcher	<i>Todirostrum maculatum</i>		B	C	Fr	1,2,3,6	T
Common Tody-flycatcher	<i>Todirostrum cinereum</i>	A	C	C, Fr, Ft		1,2,3,4,6,7	T
Yellow-browed Tody-flycatcher	<i>Todirostrum chrysocrotaphum</i>	A	B	C	F, Fe	1,2,3,4,5,6,7	T
Planalto Tyrannulet	<i>Phylomyias fasciatus</i>	A	B	C	Fb, Ft	1,2,3,4,6,7	T
Yellow-crowned Tyrannulet	<i>Tyrannulus elatus</i>	A	B	C	F, Fe	1,2,3,4,5,6,7	p T
Forest Elaenia	<i>Myiopagis gaimardii</i>	A	B	C	F, Fe, Fr	1,2,3,4,5,6,7	T
Grey Elaenia	<i>Myiopagis caniceps</i>	A	B	C	F	1,2,3,4,5,6,7	
Greenish Elaenia	<i>Myiopagis viridicata</i>	A		C	Fr, Ft	1,2,5,6	
Yellow-bellied Elaenia	<i>Elaenia flavogaster</i>	A	B		Fb	2,4,6,7	T
Small-billed Elaenia	<i>Elaenia parvirostris</i>	A		C		2,6	S
Plain-crested Elaenia	<i>Elaenia cristata</i>	A		C	C, Fb	1,2,3,7	S
Lesser Elaenia	<i>Elaenia chiriquensis</i>	A		C	Fr	1,2,3,4,6	T S
White-lored Tyrannulet	<i>Ornithion inermis</i>	A	B	C	Fb, Fe, Fr, Ft	1,2,3,4,5,6,7	T
Southern Beardless-tyrannulet	<i>Camptostoma obsoletum</i>	A	B	C	Fb, Fr, Ft, Fe	1,2,3,4,5,6,7	T S
Mouse-coloured Tyrannulet	<i>Phaenomyias murina</i>	A	B	C	Fr, Fb, C	1,2,4,6,7	S
Yellow Tyrannulet	<i>Capsiempis flaveola</i>	A			Fe	2	T
Tawny-crowned Pygmy-tyrant	<i>Euscarthmus meloryphus</i>	A		C	Fb, C	1,2,6	T
Slender-footed Tyrannulet	<i>Zimmerius gracilipes</i>	A	B	C	F, Fe, C	1,2,3,5,6,7	T
Amazonian Scrub-flycatcher	<i>Sublegatus obscurior</i>	A		C	F, C	1,2,4	T
Short-tailed Pygmy-tyrant	<i>Myiornis ecaudatus</i>	A	B	C	F	1,2,3,5,6,7	T
Olivaceous Flatbill	<i>Rhynchocyclus olivaceus</i>	A	B	C	Fe, F	1,2,5,6	S
Yellow-olive Flycatcher	<i>Tolmomyias sulphureus</i>	A	B	C	F, Fr	1,2,3,4,5,6	T
Yellow-margined Flycatcher	<i>Tolmomyias assimilis</i>	A	B	C	F, Fr	1,2,3,4,5,6,7	T
Grey-crowned Flycatcher	<i>Tolmomyias poliocephalus</i>	A	B	C	F, Fe, Fr	1,2,3,4,5,6,7	T
Yellow-breasted Flycatcher	<i>Tolmomyias flaviventris</i>	A		C	C, Ft	1,2,4,5,6,7	T S
Cinnamon-crested Spadebill	<i>Platyrinchus saturatus</i>	A			Fe	1	S
Golden-crowned Spadebill	<i>Platyrinchus coronatus</i>		B	C	Fr	2	S
White-crested Spadebill	<i>Platyrinchus platyrhynchos</i>	A		C	F	1,2,4,5,6	T S
Amazonian Royal Flycatcher	<i>Onychorhynchus coronatus</i>	A	B	C	R, Ff	2,4,6,7	T S
Bran-coloured Flycatcher	<i>Myiophobus fasciatus</i>	A		C	C	1,2,3,4,7	T S
Sulphur-rumped Flycatcher	<i>Myiobius barbatus</i>	A	B		F	1,2,3,5,7	S
Ruddy-tailed Flycatcher	<i>Terenotriccus erythrus</i>	A		C	F	1,2,3,4,5,6,7	p T S
Cliff Flycatcher	<i>Hirundinea ferruginea</i>	A	B	C	C, Fb	1,2,3,4,6,7	p T S
Euler's Flycatcher	<i>Lathrotriccus euleri</i>	A	B	C	F, Ft	1,2,3,4,5,6,7	T S
Fuscous Flycatcher	<i>Cnemotriccus fuscatus</i>	A			F	2,4	T
Olive-sided Flycatcher	<i>Contopus cooperi</i>	A			F, Fb	1,2,3,4,6,7	T
Eastern Wood-pewee	<i>Contopus virens</i>	A			Fb	1,3,6	T
Tropical Pewee	<i>Contopus cinereus</i>	A	B	C	Fb, Ft, Fe, F	1,2,3	p
Blackish Pewee	<i>Contopus nigrescens</i>	A		C	F, Fb	1,2,4,5,6,7	P T S
Amazonian Black-tyrant	<i>Knipolegus poeilocercus</i>			C	Ff	1	
Grey Monjita	<i>Xolmis cinereus</i>	A			C	1	
Black-backed Water-tyrant	<i>Fluvicola albiventer</i>		B		R, Ff	1	
Long-tailed Tyrant	<i>Colonia colonus</i>	A	B	C	Fb, F	1,2,3,4,5,6,7	p T S
Piratic Flycatcher	<i>Legatus leucophaeus</i>	A	B	C	F, Fb, Fr	1,2,3,5,6,7	
Rusty-margined Flycatcher	<i>Myiozetetes cayanensis</i>	A	B	C	C, F, Ft, Fb, Fr	1,2,3,4,5,6,7	T S
Social Flycatcher	<i>Myiozetetes similis</i>		B		Fb	2,5,6,7	T
Dusky-chested Flycatcher	<i>Myiozetetes luteiventris</i>		B	C	F	1,2,3,4,6,7	p T
Great Kiskadee	<i>Pitangus sulphuratus</i>	A	B	C	C, Fb, Fr	1,2,3,4,5,6,7	T S
Lesser Kiskadee	<i>Philohydor lictor</i>	A	B		Ff	1,2,4,6,7	T
Sulphur-bellied Flycatcher	<i>Myiodynastes luteiventris</i>		B		Fb	3	
Streaked Flycatcher	<i>Myiodynastes maculatus</i>	A	B	C	F, Ft, Fb	1,2,3,4,5,6,7	T S
Boat-billed Flycatcher	<i>Megarynchus pitangua</i>	A	B	C	Ft, Fb, Fr	1,2,3,5,6,7	T
Sulphury Flycatcher	<i>Tyrannopsis sulphurea</i>	A	B	C	Fb	1,2,4,6	p T
Variiegated Flycatcher	<i>Empidonomus varius</i>	A		C	Fb, C, Ft	1,2,3,5,6	p T S
Crowned Slaty Flycatcher	<i>Griseotyrannus aurantioatrocristatus</i>	A		C	F, Fb	1,2,3,4,5,6,7	
White-throated Kingbird	<i>Tyrannus albigularis</i>	A			C	2,4,6	p
Tropical Kingbird	<i>Tyrannus melancholicus</i>	A	B	C	C, Fb, Fr	1,2,3,4,5,6,7	P T S
Fork-tailed Flycatcher	<i>Tyrannus savana</i>	A			C	1,2,4,6	
Greyish Mourner	<i>Rhytipterna simplex</i>	A	B	C	F	1,2,3,4,5,6,7	p T
Pale-bellied Mourner	<i>Rhytipterna immunda</i>	A			C		S

Cotinga 27**An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil**

<i>Syrstes</i>	<i>Syrstes sibilator</i>	A	C	F, Fb	1,2,4,6		T		
Rufous Casiornis	<i>Casiornis rufus</i>			C	F		2		
Ash-throated Casiornis	<i>Casiornis fuscus</i>	A	B	C	Fb, Ft, Fr		1,2,3	P	
Dusky-capped Flycatcher	<i>Myiarchus tuberculifer</i>	A	B	C	F, Ft, Fr		1,2,3,4,5,6,7	p	
Swainson's Flycatcher	<i>Myiarchus swainsoni</i>	A	B	C	F, Fr		1,2,5	p	
Short-crested Flycatcher	<i>Myiarchus ferox</i>	A	B	C	C, Fr, Fb		1,2,3,4,5,6,7	p	
Brown-crested Flycatcher	<i>Myiarchus tyrannulus</i>	A			Fb		1,2	T	
Rufous-tailed Flatbill	<i>Ramphotrigon ruficauda</i>	A			F		4	T	
Dusky-tailed Flatbill	<i>Ramphotrigon fuscicauda</i>	A	C		Fb		2,6	T	
Cinnamon Attila	<i>Attila cinnamomeus</i>	A	B	C	F, Fr		1,2,3,4,5,6,7	p	
White-eyed Attila	<i>Attila bolivianus</i>	A			F		2	T	
Bright-rumped Attila	<i>Attila spadiceus</i>	A	B	C	F, Fe		1,2,3,4,5,6,7	T	
								S	
OXYRUNCIDAE									
Sharpbill	<i>Oxyruncus cristatus</i>	A	C		F		1,2,4,5,6,7		T
COTINGIDAE									
Guianan Red Cotinga	<i>Phoenicircus carnifex</i>		B	C	F		2,4,6		T
Purple-breasted Cotinga	<i>Cotinga cotinga</i>	A	C		F, Fb		1,2,3,4,5,6,7	p	T
Spangled Cotinga	<i>Cotinga cayana</i>	A	C		F, Ft		1,2,3,4,6,7	p	T
White Bellbird	<i>Procnias albus</i>	A	C		Fe, F		1,2,3,5,6,7	P	T
Screaming Piha	<i>Lipaugus vociferans</i>	A	B	C	F, Fe		1,2,3,4,5,6,7	P	T
White-tailed Cotinga	<i>Xipholena lamellipennis</i>	A			F, Fb, Ft		1,2,3,4,6,7	p	T
Bare-necked Fruitcrow	<i>Gymnoderus foetidus</i>	A	B	C	F, Fr		1,3,4,6,7		T
Purple-throated Fruitcrow	<i>Querula purpurata</i>	A	B	C	F		1,2,3,4,5,6,7		T
									S
PIPRIDAE									
Pale-bellied Tyrant-manakin	<i>Neopelma pallescens</i>	A			Ft, C		1,2,4,6	P	T
Dwarf Tyrant-manakin	<i>Tyrannetes stolzmanni</i>	A	C		F		1,2,3,4,5,6,7		T
Wing-barred Piprites	<i>Piprites chloris</i>	A	B	C	F, Fr		1,2,3,4,5,6,7		T
Fiery-capped Manakin	<i>Machaeropterus pyrocephalus</i>	A	C		F		2,4,5,6		T
Opal-crowned Manakin	<i>Lepidothrix iris</i>	A	C		F		1,2,3,4,6,7	P	T
White-bearded Manakin	<i>Manacus manacus</i>	A	B		Fb		1,2,6		T
Blue-backed Manakin	<i>Chiroxiphia pareola</i>	A	B		F, Fb		1,2,3,4,6,7		T
White-crowned Manakin	<i>Dixiphia pipra</i>		C		F, Fr		2,5		T
Crimson-hooded Manakin	<i>Pipra aureola</i>		B	C	F, Fr		2		T
Band-tailed Manakin	<i>Pipra fasciicauda</i>	A	B	C	F		1,2,3,4,5,6,7		T
Red-headed Manakin	<i>Pipra rubrocapilla</i>	A	C		Ft, Fe, F		1,2,3,4,5,6,7		T
									S
TITYRIDAE									
Thrush-like Schiffornis	<i>Schiffornis turdina</i>	A	B	C	F		1,2,3,4,5,6		T
Cinereous Mourner	<i>Laniocera hypopyrra</i>	A			F		1,2,4,6		T
Black-crowned Tityra	<i>Tityra inquisitor</i>		B	C	F		1,2,3,4,6		T
Black-tailed Tityra	<i>Tityra cayana</i>	A			F, Fb		2,4,6		T
Masked Tityra	<i>Tityra semifasciata</i>	A	B	C	F, Fb, Fe		1,2,3,4,5,6,7		T
White-browed Purpletuft	<i>Iodopleura isabellae</i>	A	B	C	F, Fb		1,2,3,4,6,7	p	T
Green-backed Becard	<i>Pachyramphus viridis</i>	A	B	C	Fb		1,2,5,7		T
Cinereous Becard	<i>Pachyramphus rufus</i>		B		F		1,2		T
Chestnut-crowned Becard	<i>Pachyramphus castaneus</i>	A	B	C	F, Fb		1,2,3,4,5,6,7		T
White-winged Becard	<i>Pachyramphus polychopterus</i>	A	B		Fb		1,2,3,4,6		T
Black-capped Becard	<i>Pachyramphus marginatus</i>		B	C	F, Fr		1,2,3,4,5,6		T
Pink-throated Becard	<i>Pachyramphus minor</i>	A	B	C	Fe, Fb		1,2,3,4,5,6,7		T
Crested Becard	<i>Pachyramphus validus</i>	A			Fr, Fb		5,6		T
Xenopsaris	<i>Xenopsaris albinucha</i>	A			C		2		T
									S
VIREONIDAE									
Rufous-browed Peppershrike	<i>Cydarhis gujanensis</i>	A	B	C	F, Fe, C		1,2,3,4,5,6,7		T
Slaty-capped Shrike-vireo	<i>Vireolanius leucotis</i>	A	B	C	F, Fb, Fe		1,2,3,4,5,6,7	p	T
Red-eyed Vireo	<i>Vireo olivaceus</i>	A	B	C	Ft, F, Fb		1,2,3,4,5,6,7		T
Black-whiskered Vireo	<i>Vireo altiloquus</i>	A			F, C		1,3,6		T
Grey-chested Greenlet	<i>Hylophilus semicinereus</i>	A	B	C	F, Fb, Fe		1,2,3,4,5,6,7		T
Ashy-headed Greenlet	<i>Hylophilus pectoralis</i>	A			F		2,7		T
Dusky-capped Greenlet	<i>Hylophilus hypoxanthus</i>	A	B	C	F		1,2,3,4,5,6,7		T
Tawny-crowned Greenlet	<i>Hylophilus ochraceiceps</i>	A	C		Fb		1,2,3,4,5,6,7		T
Buff-cheeked Greenlet	<i>Hylophilus muscicapinus</i>		B	C	F, Fb		2		T
									S
CORVIDAE									
White-naped Jay	<i>Cyanocorax cyanopogon</i>	A	B		Fb, Fr		1,4,7		T
HIRUNDINIDAE									
White-winged Swallow	<i>Tachycineta albiventer</i>	A	B	C	R, L, C		1,2,3,4,5,6,7		T
Brown-chested Martin	<i>Progne tapera</i>	A			R		1,2,5,7		T
Southern Martin	<i>Progne modesta</i>	A			airport		6		T

Cotinga 27**An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil**

Purple Martin	<i>Progne subis</i>	A	C	C, F	2,4,7				
Grey-breasted Martin	<i>Progne chalybea</i>	A	B	C	C, A, Fb	1,2,3,4,5,6	p	S	
White-banded Swallow	<i>Atticora fasciata</i>		B	C	R	1,2,3,4,5,6,7			
Black-collared Swallow	<i>Atticora melanoleuca</i>			B	R	1,2			
White-thighed Swallow	<i>Neohelidon tibialis</i>	A	B	C	F, Fb	1,2,3,4,6,7		T	
Southern Rough-winged Swallow	<i>Stelgidopteryx ruficollis</i>	A	B	C	Fb	1,2,3,4,5,6,7			
Barn Swallow	<i>Hirundo rustica</i>	A			C	1,2,6,7			
TROGLODYTIDAE									
Thrush-like Wren	<i>Campylorhynchus turdinus</i>	A	B	C	F, Fe, Fr	1,2,3,4,5,6,7	p	T	S
Coraya Wren	<i>Thryothorus coraya</i>	A	B	C	F, Fb, Fe, Ft	1,2,3,4,5,6,7		T	S
Buff-breasted Wren	<i>Thryothorus leucotis</i>			B	Fr	1,2,3			
Tooth-billed Wren	<i>Odontorchilus cinereus</i>	A			F	1,2			
Southern House Wren	<i>Troglodytes musculus</i>	A	B	C	C, Fb	1,2,3,4,5,6,7		T	S
Southern Nightingale Wren	<i>Microcerculus marginatus</i>	A	B	C	F, Fe	1,2,3,4,5,6,7		T	S
Black-capped Donacobius	<i>Donacobius atricapilla</i>	A	B	C	L, Ff	1,2,3,4,5,6,7	p	T	
POLIOPTILIDAE									
Long-billed Gnatwren	<i>Ramphocaenus melanurus</i>	A	B	C	F, Fe	1,2,3,4,5,6,7		T	
Tropical Gnatcatcher	<i>Poliopitla plumbea</i>	A			Fb	2		T?	
Pará Gnatcatcher	<i>Poliopitla paraensis</i>	A		C	C, F, Ft	1,2,3,4,6,7		T	
TURDIDAE									
Veery	<i>Catharus fuscescens</i>	A			F	2		T	S
Pale-breasted Thrush	<i>Turdus leucomelas</i>	A	B	C	C, Ft, Fb, Fe	1,2,3,4,5,6,7	p	T	S
Creamy-bellied Thrush	<i>Turdus amaurochalinus</i>	A			C, Fb	1,2,3			S
Cocoa Thrush	<i>Turdus fumigatus</i>	A	B	C	F, Fe	1,2,5,6,7			S
Hauxwell's Thrush	<i>Turdus hauxwelli</i>		B		F	2,4		T	
White-necked Thrush	<i>Turdus albicollis</i>	A	B	C	F	1,2,3,4,5,6		T	S
COEREBIDAE									
Bananaquit	<i>Coereba flaveola</i>	A	B	C	C, Fb, Ft	1,2,3,4,5,6,7		T	S
THRAUPIDAE									
Black-faced Tanager	<i>Schistochlamys melanopsis</i>	A		C	C, Fb, Ft	1,2,3,4,6,7	p		S
Maggie Tanager	<i>Cissopis leverianus</i>	A	B	C	F, Fb, Fe	1,2,3,4,5,6,7		T	S
Red-billed Pied Tanager	<i>Lamprospiza melanoleuca</i>	A	B	C	F, Fb	1,2,3,4,5,6,7		T	S
Hooded Tanager	<i>Nemosia pileata</i>			B	C	Fb		T	
Red-crowned Ant-tanager	<i>Habia rubica</i>	A				1,2			
Grey-headed Tanager	<i>Eucometis penicillata</i>				C	F		2	
Flame-crested Tanager	<i>Tachyphonus cristatus</i>	A	B	C	F	1,2,3,4,5,6,7		T	S
White-shouldered Tanager	<i>Tachyphonus luctuosus</i>	A	B	C	F, Fr	1,2,3,4,5,6,7		T	S
White-lined Tanager	<i>Tachyphonus rufus</i>	A	B	C	C, Ft, Fb	1,2,3,4,5,6,7	p		S
White-winged Shrike-tanager	<i>Lanio versicolor</i>	A		C	F	1,2,3,4,5,6,7		T	
Silver-beaked Tanager	<i>Ramphocelus carbo</i>	A	B	C	Fr, C, Fb, Ft	1,2,3,4,5,6,7		T	
Blue-grey Tanager	<i>Thraupis episcopus</i>	A	B	C	Fb	1,2,3,5,6,7			
Sayaca Tanager	<i>Thraupis sayaca</i>			B	C	Fb		2,4,5,6,7	
Palm Tanager	<i>Thraupis palmarum</i>	A	B	C	Fb, Ft, C	1,2,3,4,6		T	S
Turquoise Tanager	<i>Tangara mexicana</i>			B	C	Fr, Fb		1,2,3,4,5,6,7	p
Paradise Tanager	<i>Tangara chilensis</i>	A			F	4			
Spotted Tanager	<i>Tangara punctata</i>	A	B	C	F, Fb, Fe	1,2,3,4,6,7			S
Bay-headed Tanager	<i>Tangara gyrola</i>	A		C	F, Fb	1,2,3,4,5,6,7			
Blue-necked Tanager	<i>Tangara cyanicollis</i>	A		C	Ft	4,5			
Masked Tanager	<i>Tangara nigrocincta</i>	A	B	C	F, Fb	1,2,3,4,6,7		T	
Swallow Tanager	<i>Tersina viridis</i>	A	B	C	Fb, F	1,2,4,5,6,7			
Black-faced Dacnis	<i>Dacnis lineata</i>	A			Fb, F	1,2,3,4,6,7		T	
Blue Dacnis	<i>Dacnis cayana</i>	A		C	Fb, F	1,2,3,4,5,6,7			S
Purple Honeycreeper	<i>Cyanerpes caeruleus</i>	A		C	Fr, C	1,2			
Red-legged Honeycreeper	<i>Cyanerpes cyaneus</i>	A		C	Fr, Fb	1,2			S
Green Honeycreeper	<i>Chlorophanes spiza</i>	A	B	C	Fb, F	1,2,3,4,5,6,7		T	S
Guira Tanager	<i>Hemithraupis guira</i>	A	B	C	Fb, F, Ft	1,2,3,4,5,6,7		T	S
Chestnut-vented Conebill	<i>Conirostrum speciosum</i>			B	C	Fr		1,2,3,4,6,7	T
EMBERIZIDAE									
Rufous-collared Sparrow	<i>Zonotrichia capensis</i>	A		C	C, Fb, Ft	1,2,3,4,5,6,7	p	T	S
Grassland Sparrow	<i>Ammodramus humeralis</i>	A			C	1,2,3,6,7			S
Saffron Finch	<i>Sicalis flaveola</i>	A			Fr	2			
Blue-black Grassquit	<i>Volatinia jacarina</i>	A	B	C	C, Fb	1,2,3,4,5,6,7	p		S
Slate-coloured Seedeater	<i>Sporophila schistacea</i>			B	C	F		1,2	
Variable Seedeater	<i>Sporophila americana</i>			B		Fb		1	
Lined Seedeater	<i>Sporophila lineola</i>	A	B	C	C, Fb	1,3,5,6,7			
Yellow-bellied Seedeater	<i>Sporophila nigricollis</i>	A	B	C	C, Fb	1,2,3,4,6,7	p	T	S

Cotinga 27**An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil**

Double-collared Seedeater	<i>Sporophila caerulescens</i>	A	C	Fb	1,2,5				
Capped Seedeater	<i>Sporophila bouvreil</i>	A		C	2				
Ruddy-breasted Seedeater	<i>Sporophila minuta</i>	A		FB	7				
Chestnut-bellied Seedeater	<i>Sporophila castaneiventris</i>	A	B	C	Fb	1,2			
Lesser Seed-finch	<i>Sporophila angolensis</i>	A	B	C	R, C	1,2,7		S	
Sooty Grassquit	<i>Tiaris fuliginosus</i>	A		C	2			S	
Pectoral Sparrow	<i>Arremon taciturnus</i>	A	B	C	F, Fe	1,2,3,4,5,6,7	T	S	
Grey Pileated-finch	<i>Coryphospingus cucullatus</i>	A		Fb	1,2				
Red-capped Cardinal	<i>Paroaria gularis</i>	A	B	C	Fr, Fb	1,2,7			
CARDINALIDAE									
Yellow-shouldered Grosbeak	<i>Parkerthraustes humeralis</i>	A	B		F	1,2,6,7	p	T	
Red-and-black Grosbeak	<i>Periporphyrus erythromelas</i>	A			F	2			
Slate-coloured Grosbeak	<i>Saltator grossus</i>	A	B	C	F, Fe	1,2,3,4,5,6,7	p	T	
Buff-throated Saltator	<i>Saltator maximus</i>	A	B	C	F, Fb, Fe, C	1,2,3,4,5,6,7		T	
Greyish Saltator	<i>Saltator coerulescens</i>	A	B	C	F, Fr	1,2,3		T?	
Blue-black Grosbeak	<i>Cyanocompsa cyanoides</i>	A	B	C	F	1,2,3,4,5,6,7		T	
PARULIDAE									
Blackpoll Warbler	<i>Dendroica striata</i>	A			Fb	1,2			
Golden-crowned Warbler	<i>Basileuterus culicivorus</i>	A		C	Fb, Fe, Ft	1,2,4,5,6,7		T	
Flavescent Warbler	<i>Basileuterus flaveolus</i>	A			C, Ft	1,2,4,6,7		T	
River Warbler	<i>Phaethilypis rivularis</i>	A	B	C	Ff	1,2,3,4,5,7		T	
Rose-breasted Chat	<i>Granatellus pelzelni</i>	A	B	C	Fe, Ft, Fr	1,2,3,4,5,6,7	p	T	
ICTERIDAE									
Green Oropendola	<i>Psarocolius viridis</i>	A	B		Fb, F	1,2,3,4,6,7		S	
Crested Oropendola	<i>Psarocolius decumanus</i>	A	B	C	Fb, Fe, F, Fr	1,2,4,6,7		T	
Olive (Pará) Oropendola	<i>Psarocolius bifasciatus</i>	A	B	C	Fb, F	1,2,3,5,7		T	
Solitary Cacique	<i>Prociacicus solitarius</i>		B		Fr	1,2,6			
Yellow-rumped Cacique	<i>Cacicus cela</i>	A	B	C	Fr, Fb	1,2,3,4,5,6,7		T	
Red-rumped Cacique	<i>Cacicus haemorrhous</i>	A	B	C	F, Fb	1,2,3,4,6,7			
Epaulet Oriole	<i>Icterus cayanensis</i>	A	B	C	Fb	1,2,3,4,5,6,7		T	
Shiny Cowbird	<i>Molothrus bonariensis</i>	A		C	urban area, Fr	1,2,3,4,6,7			
Giant Cowbird	<i>Molothrus oryzivorus</i>	A	B	C	Fr, Ff, Fb	1,2,3,4,6		S	
Red-breasted Blackbird	<i>Sturnella militaris</i>	A			Fb	2,6	p		
FRINGILLIDAE									
Purple-throated Euphonia	<i>Euphonia chlorotica</i>	A	B		C, Fb	1,2,3,4,6,7		T	
Violaceous Euphonia	<i>Euphonia violacea</i>	A	B	C	F, Fb, Fr	1,2,3,5,6,7		T	
Golden-rumped Euphonia	<i>Euphonia cyanocephala</i>	A			Fb, C	1,2,3,6		T	
White-lored Euphonia	<i>Euphonia chrysopasta</i>	A	B	C	Fb, Fr	1,2,3,4,5,6,7			
White-vented Euphonia	<i>Euphonia minuta</i>	A	B		Fb, F	1,2,3,6		T	
Rufous-bellied Euphonia	<i>Euphonia rufiventris</i>	A	B	C	F	1,2,3,4,5,6,7		T	
PASSERIDAE									
House Sparrow	<i>Passer domesticus</i>	A	B	C	urban area	1,2,3,4,5,6			