**Supplemental Material**

**Perspectives in Ecology and Conservation**

**Implications of unreliable species identification methods for Neotropical deer conservation planning**

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**A.** Geographic distribution of the eight deer species found in Brazil.



**B.** Comparative photograph of the eight deer species currently described for Brazil and kept at the scientific breeding site of the São Paulo State University. In the background, a size scale is shown in centimeters. (A) *Mazama gouazoubira*, (B) *Mazama nemorivaga*, (C) *Mazama americana*, (D) *Mazama nana*, (E) *Mazama bororo*, (F) *Odocoileus virginianus*, (G) *Blastocerus dichotomus* and (H) *Ozotoceros bezoarticus*.



**C.** List of protected areas with evaluated management plans, their administration and management responsibility, area occupied and position related to Brazilian biomes.

|  |  |  |  |
| --- | --- | --- | --- |
| **Protected Areas** | **Management Class** | **Area (ha)** | **Biome** |
| Alto Chandless State Park | Public | 693294 | Amazon |
| Amazônia National Park | Public | 1110528 | Amazon |
| Anavilhanas Ecological Station | Public | 340832 | Amazon |
| Angatuba Ecological Station | Public | 1412 | Cerrado |
| Aparados da Serra National Park | Public | 13064 | Atlantic forest |
| Araguaia National Park | Public | 564529 | Cerrado |
| Araguaia State Park | Public | 229921 | Cerrado |
| Araucárias National Park | Public | 12847 | Atlantic forest |
| Assis Ecological Station | Public | 1287 | Cerrado |
| Cabo Orange National Park | Public | 657316 | Amazon |
| Campos Amazônicos National Park | Public | 879714 | Amazon |
| Campos de Palmas Wildlife Refuge | Public | 16594 | Atlantic forest |
| Cantão State Park | Public | 100415 | Cerrado |
| Caparaó National Park | Public | 31763 | Atlantic forest |
| Carlos Botelho State Park | Public | 40219 | Atlantic forest |
| Cavernas do Peruaçu National Park | Public | 56476 | Cerrado |
| Chapada Diamantina National Park | Public | 149694 | Caatinga |
| Chapada dos Guimarães National Park | Public | 32656 | Cerrado |
| Chapada dos Veadeiros National Park | Public | 64796 | Cerrado |
| Corumbiara State Park | Public | 407148 | Amazon |
| Cristalino II State Park | Public | 141351 | Amazon |
| Descobrimento National Park | Public | 21145 | Atlantic forest |
| Desengano State Park | Public | 21403 | Atlantic forest |
| Emas National Park | Public | 132600 | Cerrado |
| Grande Sertão Veredas National Park | Public | 230853 | Cerrado |
| Grão Pará Ecological Station | Public | 4203564 | Amazon |
| Guaporé Biological Reserve | Public | 615211 | Amazon |
| Gurupi Biological Reserve | Public | 271198 | Amazon |
| Histórico do Monte Pascoal National Park | Public | 22332 | Atlantic forest |
| Iguaçu National Park | Public | 169696 | Atlantic forest |
| Ilha do Cardoso State Park | Public | 13155 | Atlantic forest |
| Ilha Grande National Park | Public | 107917 | Atlantic forest |
| Intervales State Park | Public | 49560 | Atlantic forest |
| Itatiaia National Park | Public | 28245 | Atlantic forest |
| Itirapina Ecological Station | Public | 2206 | Cerrado |
| Jalapão State Park | Public | 158973 | Cerrado |
| Jataí Ecological Station | Public | 9000 | Cerrado |
| Juami-Japurá Ecological Station | Public | 831531 | Amazon |
| Juruena National Park | Public | 1955256 | Amazon |
| Jurupará State Park | Public | 25178 | Atlantic forest |
| Jutaí-Solimões Ecological Station | Public | 289513 | Amazon |
| Lajeado State Park | Public | 10750 | Cerrado |
| Lauráceas State Park | Public | 27682 | Atlantic forest |
| Maicuru Biological Reserve | Public | 1149306 | Amazon |
| Montanhas do Tumucumaque National Park | Public | 3865324 | Amazon |
| Nascentes da Serra do Cachimbo Biological Reserve | Public | 342192 | Amazon |
| Nascentes do Taquari State Park | Public | 30648 | Cerrado |
| Pacaas Novos National Park | Public | 707975 | Amazon |
| Pantanal do Rio Negro State Park | Public | 77908 | Pantanal |
| Pantanal Matogrossense National Park | Public | 135683 | Pantanal |
| Pau Brasil National Park | Public | 11553 | Atlantic forest |
| Pirapitinga Ecological Station | Public | 1384 | Cerrado |
| Raso da Catarina Ecological Station | Public | 104843 | Caatinga |
| Rio Doce State Park | Public | 36010 | Atlantic forest |
| Rio Negro Setor Norte State Park | Public | 149739 | Amazon |
| Rio Negro Setor Sul State Park | Public | 155853 | Amazon |
| Rio Trombetas Biological Reserve | Public | 407754 | Amazon |
| \*RPPN Acurizal | Private | 13031 | Pantanal |
| RPPN Ambientalista Francy Nunes | Private | 110 | Caatinga |
| RPPN Buraco das Araras | Private | 52 | Cerrado |
| RPPN Cabeceira do Mimoso | Private | 475 | Cerrado |
| RPPN Engenheiro Eliezer Batista | Private | 20223 | Pantanal |
| RPPN Estância Dorochê | Private | 114 | Pantanal |
| RPPN Estância Ecol. SESC Pantanal | Private | 87883 | Pantanal |
| RPPN Fazenda Águas Belas | Private | 591 | Atlantic forest |
| RPPN Fazenda Barra Mansa | Private | 114 | Atlantic forest |
| RPPN Fazenda Bom Jardim | Private | 114 | Cerrado |
| RPPN Fazenda Cabeceira do Prata | Private | 292 | Cerrado |
| RPPN Fazenda da Barra | Private | 88 | Pantanal |
| RPPN Fazenda João Pereira/Poço Fundo | Private | 337 | Atlantic forest |
| RPPN Fazenda Nhumirim | Private | 671 | Pantanal |
| RPPN Fazenda Palmital | Private | 112 | Atlantic forest |
| RPPN Fazenda Rio Negro | Private | 7001 | Pantanal |
| RPPN Fazenda São Bento | Private | 219 | Atlantic forest |
| RPPN Fazenda São Geraldo | Private | 677 | Atlantic forest |
| RPPN Galheiros | Private | 4063 | Cerrado |
| RPPN Ita-Y-Tiba | Private | 1083 | Atlantic forest |
| RPPN Mata do Sossego | Private | 392 | Atlantic forest |
| RPPN Mitra do Bispo | Private | 101 | Atlantic forest |
| RPPN Morro da Mina | Private | 1335 | Atlantic forest |
| RPPN Não Me Deixes | Private | 111 | Caatinga |
| RPPN Penha | Private | 12268 | Pantanal |
| RPPN Reserva Ecológica Amadeu Botelho | Private | 114 | Atlantic forest |
| RPPN Reserva Jacob | Private | 429 | Cerrado |
| RPPN Reserva Natural Serra do Tombador | Private | 8730 | Cerrado |
| RPPN Salto do Morato | Private | 885 | Atlantic forest |
| RPPN Santuário da Serra do Caraça | Private | 12791 | Atlantic forest |
| RPPN Serra das Almas | Private | 6146 | Caatinga |
| RPPN Soluar | Private | 45 | Cerrado |
| RPPN Tarumã | Private | 913 | Atlantic forest |
| RPPN Vale das Araras | Private | 31 | Cerrado |
| RPPN Xodó do Vô Ruy | Private | 40 | Cerrado |
| Santa Bárbara Ecological Station | Public | 3164 | Cerrado |
| Sempre-Vivas National Park | Public | 124154 | Cerrado |
| Seridó Ecological Station | Public | 1124 | Caatinga |
| Serra Azul State Park | Public | 11007 | Cerrado |
| Serra da Bocaina National Park | Public | 97878 | Atlantic forest |
| Serra da Bodoquena National Park | Public | 77022 | Cerrado |
| Serra da Canastra National Park | Public | 197811 | Cerrado |
| Serra da Cutia National Park | Public | 280706 | Amazon |
| Serra das Araras I Ecological Station | Public | 23764 | Cerrado |
| Serra das Confusões National Park | Public | 523924 | Cerrado |
| Serra do Cipó National Park | Public | 31639 | Cerrado |
| Serra do Itajaí National Park | Public | 68729 | Atlantic forest |
| Serra do Mar State Park | Public | 332000 | Atlantic forest |
| Serra do Pardo National Park | Public | 445394 | Amazon |
| Serra Geral do Tocantins Ecological Station | Public | 718472 | Cerrado |
| Serra Geral National Park | Public | 17359 | Atlantic forest |
| Sete Cidades National Park | Public | 6304 | Caatinga |
| Sete Passagens State Park | Public | 2822 | Caatinga |
| Sooretama Biological Reserve | Public | 27859 | Atlantic forest |
| Terra do Meio Ecological Station | Public | 3360976 | Amazon |
| Turvo State Park | Public | 16979 | Atlantic forest |
| Uatumã Biological Reserve | Public | 938721 | Amazon |
| Ubajara National Park | Public | 6271 | Caatinga |
| Una Biological Reserve | Public | 10604 | Atlantic forest |
| Várzeas do Rio Ivinhema State Park | Public | 74224 | Atlantic forest |
| Viruá National Park | Public | 214948 | Amazon |

**\*** RPPN= Private Reserve of Natural Heritage.

**D.** Number of occurrence records for each species, per biome, and their respective coherence with the species’ geographic distributions.

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| --- | --- | --- | --- |
| **Biome** | **Species** | **Records (n)** | **Status** |
| **Caatinga** | *M. gouazoubira* | 6 | Inside its distribution |
| *M. americana* | 4 | Outside its distribution |
| *O. bezoarticus* | 1 | Outside its distribution |
| **Atlantic Forest** | *M. americana* | 29 | Inside its distribution |
| *M. gouazoubira* | 24 | Inside its distribution |
| *M. nana* | 11 | Inside its distribution |
| *O. bezoarticus* | 7 | Inside its distribution |
| *M. bororo* | 5 | Inside its distribution |
| *B. dichotomus* | 3 | Inside its distribution |
| **Amazon** | *M. americana* | 19 | Inside its distribution |
| *M. gouazoubira* | 11 | Outside its distribution |
| *M. nemorivaga* | 4 | Inside its distribution |
| *B. dichotomus* | 2 | Inside its distribution |
| *O. bezoarticus* | 2 | Inside its distribution |
| *O. virginianus* | 2 | Inside its distribution |
| **Cerrado** | *M. gouazoubira* | 27 | Inside its distribution |
| *M. americana* | 26 | Inside its distribution |
| *O. bezoarticus* | 14 | Inside its distribution |
| *B. dichotomus* | 9 | Inside its distribution |
| **Pantanal** | *M. gouazoubira* | 9 | Inside its distribution |
| *B. dichotomus* | 6 | Inside its distribution |
| *M. americana* | 6 | Inside its distribution |
| *O. bezoarticus* | 5 | Inside its distribution |
| **Total** | *M. americana* | 84 | - |
| *M. gouazoubira* | 77 | - |
| *O. bezoarticus* | 29 | - |
| *B. dichotomus* | 20 | - |
| *M. nana* | 11 | - |
| *M. bororo* | 5 | - |
| *M. nemorivaga* | 4 | - |
| *O. virginianus* | 2 | - |