

## New Species of *Atractus* Wagler, 1828 (Serpentes: Dipsadinae) from Guyana Plateau in Northern Brazil

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**ABSTRACT.**—A new species of *Atractus* is described from Serra do Surucucu, a mountain slope at 1,000 m in the Guyana Shield, State of Roraima, Brazil. This species, only known by females, is diagnosed from all congeners by the following combination of characters: 17/17/17 smooth dorsal scale rows, without apical pits; 200–207 ventral scales; 25–26 subcaudal scales; moderate sized loreal, contacting second and third supralabials; seven supralabials, third and fourth contacting orbit; seven infralabials, first three contacting chinshields; moderate size, 222–388 mm SVL; short tail (7.7–8.8% snout–vent length); dorsal color pattern, in preservative, uniform chocolate to dark brown, with two conspicuous light paraventral lines, and a light incomplete occipital collar; venter immaculate creamish-white; tail uniform black; five maxillary teeth. We compared the new species with all currently recognized cis-Andean *Atractus*, and its affinities with *Atractus alphonsehoegi*, *Atractus caixuana*, *Atractus collaris*, *Atractus gaigeae*, *Atractus limitaneus*, and *Atractus zidoki* are discussed on the basis of putative morphological synapomorphies.

**RESUMO.**—Uma espécie nova de *Atractus* é descrita da Serra do Surucucu, uma elevação montanhosa de 1000 m no Platô das Guianas, estado de Roraima, Brasil. Esta espécie, conhecida somente por fêmeas, é diagnosticada de todos seus congêneres pela seguinte combinação de caracteres: 17/17/17 séries de escamas dorsais lisas, sem fossetas apiliares; 200–207 escamas ventrais; 25–26 escamas subcaudais; loreal de tamanho moderado, contatando a segunda e terceira supralabiais; sete supralabiais, quarta e quinta contatando a órbita; sete infralabiais, três primeiras contatando as geniais; tamanho moderado, 222–388 mm do CRC; cauda curta (7.7–8.8% comprimento rostró-cloacal) em fêmeas; padrão de coloração dorsal em preservativo variando de chocolate a marrom-escuro, com linhas paraventrals claras conspícuas e colar occipital claro incompleto; ventre creme-esbranquiçado; cauda negro uniforme; cinco dentes maxilares. Nós comparamos a nova espécie com todas as *Atractus* cis-Andinas atualmente reconhecidas e suas afinidades com *Atractus alphonsehoegi*, *Atractus caixuana*, *Atractus collaris*, *Atractus gaigeae*, *Atractus limitaneus* e *Atractus zidoki* são discutidas fundamentado em possíveis sinapomorfias morfológicas.

The fossorial snake genus *Atractus* comprises more than 100 species, most of them showing restricted distribution or only reported from their type localities (Myers, 2003; Passos et al., 2005; Myers and Schargel, 2006). The genus is widely distributed throughout South America, occurring from eastern Panama through the Andean slopes of Venezuela to Bolivia, Guyana Shield, Amazon Rainforest, central and southern Brazil, and northern Argentina (Peters and Orejas-Miranda, 1970; Giraudo and Scrocchi, 2000; Myers, 2003). *Atractus* has a puzzled taxonomic history, with revisions only available for some countries such as Panama (Myers, 2003), Venezuela (Roze, 1961), Suriname (Hoogmoed, 1980), and Ecuador (Savage, 1960); or geographically defined regions such as eastern Brazilian Amazonia (Cunha and Nascimento, 1983), central Amazonia (Martins and Oliveira,

1993), southern Colombian Amazonia (Silva, 2004), northeastern Argentina (Giraudo and Scrocchi, 2000), and Venezuelan Andes (Esqueda and La Marca, 2005).

In recent years, studies on the cis-Andean *Atractus* have increased (Hoogmoed and Prudente, 2003; Silva, 2004; Passos et al., 2005; Kok, 2006). Currently, 58 species of cis-Andean *Atractus* are recognized as occurring in the following South American biomes: Amazonia Rainforest (approximately 28 spp.), Highlands Tepuis (three spp.), Coastal Highlands of Venezuela (four spp.), Neotropical Savannas (approximately seven spp.), Chaco region (three spp.), Atlantic Rainforest (10 spp.), and Brazilian Cerrado (four spp.). Knowledge of “lowland” *Atractus* is still far from complete, with new records regularly added (Fernandes and Argôlo, 1999; Fernandes et al., 2000; Giraudo and Scrocchi, 2000; Prudente and Santos-Costa, 2005), a number of synonyms to be recognized (Passos, 2008), and new species recently de-

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scribed (Silva, 2004; Prudente and Santos-Costa, 2006; Cacciali et al., 2007; Passos et al., 2007b).

In the course of the revision of Amazonian species of *Atractus*, we found specimens from an isolated population from a mountain slope of the Guyana Shield that we could not match to any previously described species of the genus. Therefore, the aim of this paper is to describe this new species, and comment on their affinities based on putative synapomorphies.

#### MATERIALS AND METHODS

Terminology for cephalic shields follows the definitions of Savage (1960) and the method for counting ventral scales follows Dowling (1951). Regarding the condition of the loreal scale, we consider three states according to Passos et al. (2007a). Paired scales are given in a right-left designation. Measurements were taken with a dial caliper to the nearest 0.1 mm, except for total length (TL), snout-vent length (SVL), tail length (TAL) and head length (HL) which were measured to the nearest 1 mm with a flexible rule. Sex was determined by the presence or absence of hemipenes through a ventral incision at the base of the tail. Specimen examined are listed in Appendix 1.

#### SPECIES DESCRIPTION

##### *Atractus surucucu* sp. nov.

Figures 1, 2

*Holotype*.—Female, MPEG 19146, collected November, 12, 1996 by J. B. F. Silva, from Serra do Surucucu (02°47'N, 63°40'W, approximately 1,000 m), State of Roraima, Brazil.

*Paratypes*.—Two females, MPEG 18436 and 18437, collected at the type locality on 19 November, 1991, by S. Almeida.

*Diagnosis*.—*Atractus surucucu* distinguished from all species of the genus by the following combination of characters: (1) 17/17/17 dorsal scale rows, smooth, without apical pits; (2) 200–207 ventral scales in females; (3) 25–26 subcaudal scales in females; (4) moderate loreal, contacting second and third supralabials; (5) two postoculars; (6) seven supralabials, third and fourth contacting orbit; (7) seven infralabials, first three contacting chinshields; (8) moderate size, 222–388 mm of SVL in adult females; (9) short tail (7.7–8.8% SVL) in females; (10) dorsal color pattern uniform chocolate to dark brown, with two light stripes on the paraventral region, and light incomplete occipital collar; (11) venter immaculate creamish white; (12) tail uniform black; (13) five maxillary teeth.

*Comparisons*.—Regarding all cis-Andean species of *Atractus*, *A. surucucu* differs from *Atractus*

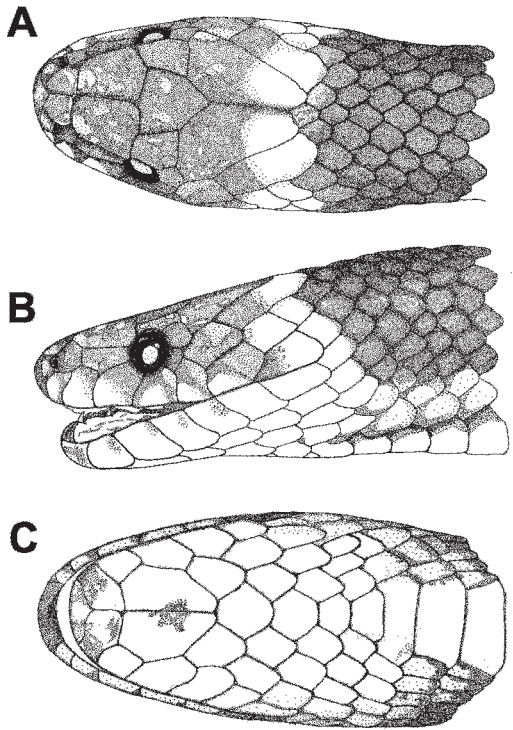


FIG. 1. Dorsal (A), lateral (B), and ventral (C) views of the head of the holotype of *Atractus surucucu* sp. nov. (MPEG 19146). Scale = 5 mm.

*albuquerquei*, *Atractus boettgeri*, *Atractus edioi*, *Atractus elaps*, *Atractus emmeli*, *Atractus charitoae*, *Atractus franciscopaiivai*, *Atractus helliobelimini*, *Atractus insipidus*, *Atractus paraguayensis*, *Atractus paravertebralis*, *Atractus poeppigi*, *Atractus potschi*, *Atractus punctiventris*, *Atractus occipitoalbus*, *Atractus reticulatus*, *Atractus taeniatus*, *Atractus trilineatus*, and *Atractus vittatus* by having 17 dorsal scale rows (vs. 15 dorsal scale rows). The new species differ from most of 17 dorsal scales rows species of *Atractus* (*Atractus arangoi*, *Atractus badius*, *Atractus bocki*, *Atractus canedii*, *Atractus davidhardi*, *Atractus flammigerus*, *Atractus janethae*, *Atractus lancinni*, *Atractus latifrons*, *Atractus lucilae*, *Atractus maculatus*, *Atractus major*, *Atractus schach*, *Atractus riveiroi*, *Atractus serranus* [juveniles], *Atractus snethlageae*, *Atractus torquatus*, *Atractus trihedrurus* [juveniles], and *Atractus zebrinus*) by having an uniform dark brown dorsal color pattern reaching the lateral portions of ventral scales (vs. dorsal color pattern with alternating black, red or white dorsal stripes, bands or blotches). It differs from *Atractus collaris*, *Atractus favae*, *Atractus fuliginosus*, *Atractus gaigeae*, *Atractus guentheri*, *Atractus limitaneus*, *Atractus pantostictus*, *Atractus ronnie*,

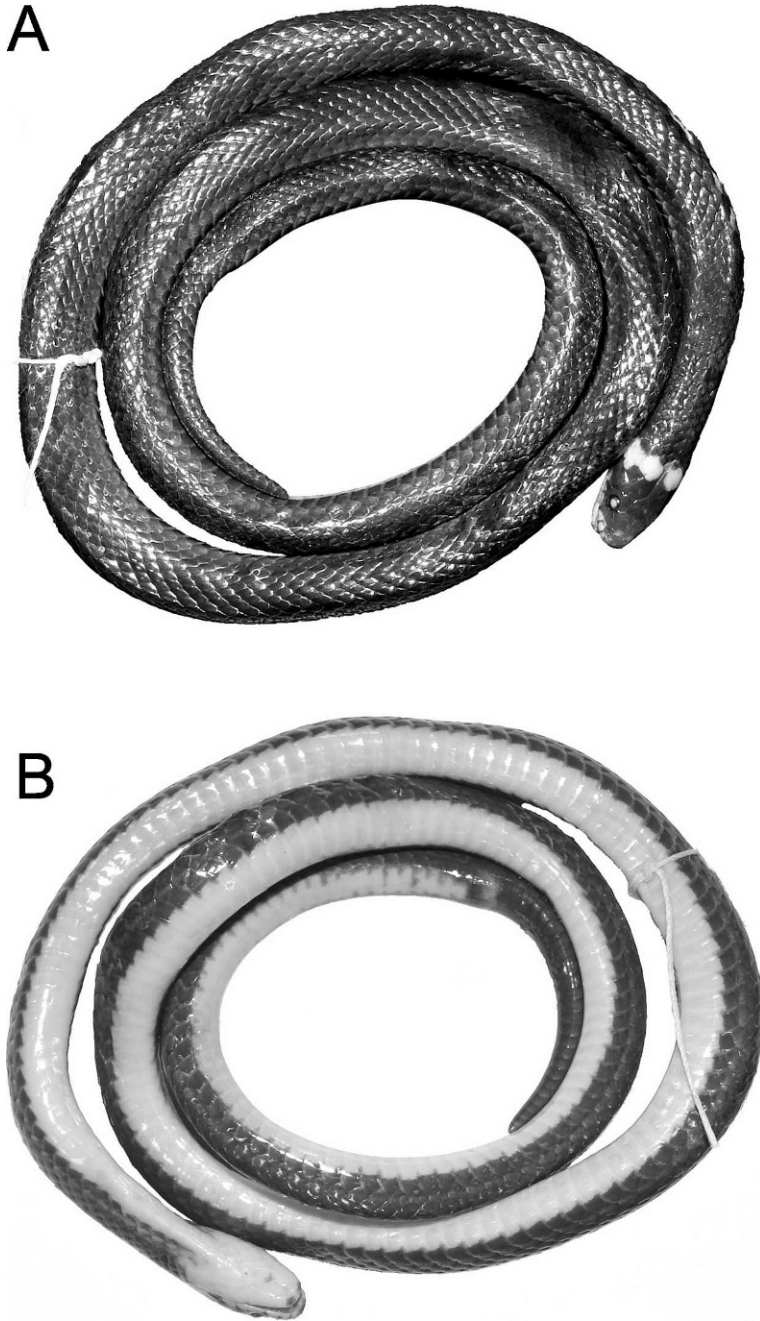


FIG. 2. Dorsal (A) and ventral (B) views of the holotype of *Atractus surucucu* sp. nov. (MPEG 19146). TL 418 mm.

*Atractus univittatus*, and *Atractus zidoki* by having a dorsal color pattern uniformly dark brown and tail entirely black (vs. dorsal color pattern with paired spots white bordered on paravertebral region, longitudinal striped on the vertebral line, paravertebral region or on the flanks; and tail never entirely black); from

*Atractus alphonsehoge* by having high number of ventrals scales (200–208) in females, uniform dark brown dorsum, and uniformly black subcaudals (vs. 163–175 ventrals in females, generally striped dorsum, and white subcaudals); from *Atractus caxiuana* by loreal not contacting internasals (vs. contact between

loreal and internasals); from *Atractus duidensis*, *Atractus emersoni*, *Atractus matthewi*, *Atractus natans*, *Atractus serranus*, *Atractus steymarki*, *Atractus tamessari*, and *Atractus trihedrurus* by having venter uniform creamish-white (vs. venter with a wide central black band of irregular width, usually occupying uniformly total area of the ventral scales); from *Atractus balzani*, *kangueryensis*, and *Atractus thalesdelemai* by having two postoculars (vs. single postocular).

*Description of the Holotype.*—Adult female, 388 mm SVL, 30 mm TAL (7.7% of SVL), 9.3 mm HL (2.38% of SVL); head slightly distinct from body; body cylindrical, belly flattened; snout convex in lateral view, rounded in dorsal view; tail short, with terminal spine acuminate and conical; rostral wider (2.1 mm) than high (1.3 mm), visible from above; internasal longer (1.4 mm) than wide (1.0 mm wide); internasal suture dextral regarding the prefrontal median suture; prefrontals slightly longer (2.2 mm) than wide (2.1 mm); frontal slightly longer (2.7 mm) than wide (2.5 mm), with a pentagonal shape in dorsal view; parietals longer (2.9 mm) than wide (2.4 mm); supraocular irregularly trapezoidal, longer (1.7 mm) than wide (1.5 mm); nasal divided; prenasal contacting rostral, internasal, and first supralabial; postnasal contacting prefrontals, loreal, and second pair of supralabials; loreal contacting eyes, prefrontals, nasals, and second to third supralabials; moderate loreal (1.7 mm long and 1.2 mm high); eye diameter 1.4 mm; pupil round; snout-orbit distance 3.2 mm; interocular distance 3.6 mm; two sub-equal postoculars, lower in contact with fourth and fifth supralabials; 1 + 2 temporals; anterior temporal in contact with parietal, fifth to sixth supralabials, and postoculars; upper posterior temporal elongate (about 2.5 times longer than wide), lower posterior temporals not fused; seven supralabials, third and fourth contacting orbit; seven infralabials, first pair in contact behind symphyseal, first three pairs contacting chinshields; symphyseal about twice wider (1.9 mm) than long (0.9 mm), separated from chinshields by first pair of infralabials; chinshields about twice longer than broad; four series of gular scales between the last supralabial and preventral; 17/17/17 dorsal scales rows, smooth, without apical pits; four preventral scales; 206 ventral scales; anal plate single; 25 paired subcaudal scales; five maxillary teeth, with two postdiastemal teeth; diastema short (smaller than height of postdiastemal teeth).

*Color Pattern of the Holotype in Preservative.*—Dorsum of head dark brown, with most cephalic shields (e.g., rostral, internasals, nasals, prefrontals, frontals, and loreals) having small

cream spots toward the center. Anterior part of the first six pair of supralabials scales cream. Head posteriorly with two cream spots on each side, not contacting the opposite one in the median portion, forming an incomplete occipital collar that covers the posterior part of parietals, most of temporal region, and posterior portion of seventh supralabial. Infralabials and gular region uniformly cream white. Anterior region of the first pair of infralabials, lateral portions of symphyseal, and medial portion of gular scales black pigmented. Dorsal ground color of body uniformly dark brown, except for two light rows on the paraventral region, forming conspicuous longitudinal lines. Margins of ventral scales black, remaining scale areas uniform creamish white. Anal plate and subcaudals uniform black (Fig. 2).

*Variation.*—The two paratypes show differences in size, and in some scale counts as follows: MPEG 18436: 225 mm SVL, 20 mm TAL (8.8% of SVL), and 8.6 mm HL (3.8% of SVL); rostral wider (1.3 mm) than high (0.9 mm); internasal wider (0.7 mm) than long (0.5 mm); prefrontals as long (1.6 mm) as wide; frontal longer (2.1 mm) than wide (2.0 mm); parietal longer (2.4 mm) than wide (2.1 mm); supraocular longer (1.2 mm) than wide (0.9 mm); moderate loreal (1.1 mm long and 0.7 mm wide); upper posterior temporal elongate (2.7 mm long and 0.8 mm wide), first lower posterior temporal short (1.4 mm long and 1.2 mm wide); eye diameter 1.4 mm; snout-orbit distance 2.1 mm; interocular distance 2.3 mm; symphyseal wider (1.3 mm) than high (0.4 mm); 207 ventrals; 26 paired subcaudals. MPEG 18437: 222 mm SVL, 18 mm TAL (8.1% of SVL), and 8.5 mm HL (3.9% of SVL); rostral wider (1.5 mm) than high (0.8 mm); internasal wider (0.7 mm) than long (0.6 mm); prefrontals slightly longer (1.5 mm) than wide (1.4 mm); frontal longer (2.0 mm) than wide (1.9 mm); parietal longer (2.4 mm) than wide (2.1 mm); supraocular longer (1.3 mm) than wide (1.0 mm); moderate loreal (1.1 mm long and 0.8 mm wide); upper posterior temporal elongate (2.5 mm long and 0.9 mm wide), first lower posterior temporal short (1.5 mm long and 1.4 mm wide); eye diameter 1.1 mm; snout-orbit distance 2.2 mm; interocular distance 2.3 mm; symphyseal wider (1.4 mm) than high (0.6 mm); four (left side) and three (right side) gular scale rows; 200 ventrals; 25 paired subcaudals.

*Distribution.*—Known only from the Serra do Surucucu, a mountain slope ranging to 1,000 m elevation in the Guyana Shield, with predominantly an altitudinal Savanna type vegetation (Fig. 3).

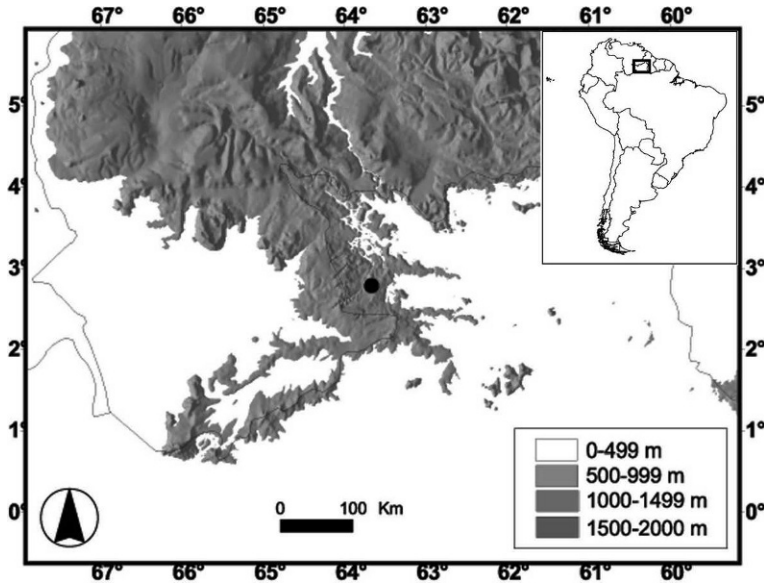


FIG. 3. Geographical distribution of *Atractus surucucu* sp. nov. in Brazil.

*Etymology.*—The specific epithet “*surucucu*” is derived from Tupi indigenous name (*suú-u-u*) meaning a very aggressive pit-viper. This is used here as noun in apposition, alluding to the proper name of the type locality of the new species (Serra do Surucucu). *Surucucu* refers also commonly to the popular name of the Bushmaster *Lachesis muta* in Brazil.

#### DISCUSSION

*Atractus surucucu* shares an unusual distribution of characters with some Amazon Rainforest species of *Atractus* (*A. alphonsehogei*, *Atractus caxiuana*, *A. collaris*, *A. gaigeae*, *A. limitaneus*, and *A. zidoki*). All these taxa have the following exclusive combination of characters: 17 dorsal scale rows; dorsal scales with tubercles at cloacal region in male specimens; two apical pits generally present at anterior portion of dorsal scales; small body diameter (>5 mm at midbody); moderate to short loreal scale; five to six maxillary teeth; three or four large and well spaced prediastemal teeth; maxilla with a moderate to short diastema (smaller than last prediastemal teeth); two postdiastemal teeth, smaller than prediastemal teeth; incomplete (not contacting the opposite one in the median portion of parietal suture) narrow occipital light collar in juvenile and adult specimens; dorsal ground color brown to black (in preserved specimens), with paired light dots, conspicuous stripes on the flanks, and paraventral regions, or uniformly colored; venter uniform creamish red to orange in life and creamish-white in pre-

served specimens; noncapitate and noncalyculate hemipenis (= undifferentiated condition from Savage, 1960).

Although most state characters considered above may occur individually in several other *Atractus* species, at least the possession of tubercles in the cloacal region of males, apical pits at dorsal scales, and incomplete occipital light collar are apparently exclusive for this group, and can be interpreted as putative synapomorphies (Passos, 2008). Because these supposed synapomorphies were not evaluated here for all recognized species of *Atractus*, this precludes the proposition to allocate them to a new species group of the genus. Therefore, future observations on the distribution of these features in trans-Andean species of *Atractus* might corroborate this assumption.

Despite the fact that apical pits and supra-anal tubercles were not observed in the type-series (three females) of *A. surucucu*, the task of finding apical pits is difficult and are largely dependent of the preservation procedure, storage time, individual age, and whether the specimen was preserved approaching ecdysis (see Conant, 1951). Hence, we have found most females from the above species lacking apical pits as well, whereas supra-anal tubercles are exclusive to males (see Hoogmoed, 1980 and Cunha and Nascimento, 1983), we predict the occurrence of such structures in the males of the new species.

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#### APPENDIX 1

Specimens examined are housed in the following institutions: Argentina: Fundación Miguel Lillo (FML), San Miguel de Tucumán; Universidad Nacional del Nordeste (UNNEC), Corrientes. Bolivia—Colección Boliviana de Fauna (CBF), La Paz; Museo Noel Kempff Mercado (MNKR), Santa Cruz de La Sierra. Brazil—Coleção Herpetológica Gregório Bondar, Centro de Pesquisas do Cacau (CEPLAC), Ilhéus; Coleção Herpetológica da Universidade Federal do Ceará (CHUFC), Fortaleza; Museu Zoológico Augusto Ruschi, Universidade de Passo Fundo (CRUPF), Passo Fundo; Instituto Butantan (IBSP), São Paulo; Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus; Instituto Vital Brazil (IVB), Niterói; Laboratório de Zoologia dos Vertebrados, Universidade Federal de Ouro Preto (LZVUFOP), Ouro Preto; Museu de Ciências e Tecnologia da Pontifícia Universidade Católica do Rio Grande do Sul (MCN), Porto Alegre; Museu de Ciências da Pontifícia Universidade Católica de Minas Gerais (MCNR), Belo Horizonte; Museu de História Natural Capão da Imbuia (MHNCI), Curitiba; Museu Nacional (MNRJ), Rio de Janeiro; Museu Paraense Emílio Goeldi (MPEG), Belém; Museu da Universidade Federal de Alagoas (MUFAL), Maceió; Museu de Zoologia da Universidade Estadual de Feira de Santana (MZUEFS), Feira de Santana; Museu de Zoologia da Universidade Estadual de Santa Cruz (MZUESC), Ilhéus; Museu de Zoologia da Universidade de São Paulo (MZUSP), São Paulo. Colombia—Instituto Alexander Von Humboldt (IAvH), Villa de Leyva; Universidad Nacional de Colombia, Instituto de Ciencias Naturales (ICN), Bogotá D.C.; Museo de la Universidad de La Salle (MLS), Bogotá D.C.; Museo de La Universidad Javeriana (MUJ), Bogotá D.C. Ecuador—Escuela Politécnica Nacional (EPN), Quito; Museo de Zoología, Pontificia Universidad Católica del Ecuador (QCAZ), Quito. Peru—Museo de Historia Natural de la Universidad Nacional de Arequipa (MUSA), Arequipa; Museo de la Universidad Mayor de San Marcos (MHNSM), Lima. Venezuela—Estación Biológica Rancho Grande (EBRG), Maracay; Museo de Biología de la Universidad Central de Venezuela (MBUCV), Caracas D.C.; Museo de Historia Natural de la Fundación La Salle (MHNLS), Caracas, D.C. Germany—Zoologische Museum at University of Hamburg (ZMH), Hamburg. England—Natural History Museum (NHM), London. All cis-Andean specimens of *Atractus* examined are listed below.

*Atractus albuquerquei* (N = 12).—BRAZIL: Goiás: Hydroelectric Plant: Aporé (MNRJ 14370–14376); Pará: Orilândia do Norte: (MPEG 20792); Vila Nova: near Rio Timboteua: Tomé-Açu-Paragominas: (MPEG 12946, holotype); Rondônia: Samuel Hydroelectric Plant: Candeias do Jamari: (CHUFC 1481–1483), Vila Cachoeira do Samuel: (MNRJ 3028).

*Atractus alphonsehoegi* (N = 9).—BRAZIL: Maranhão: Santa Inês: (MPEG 10874); Pará: Viseu: Km 75 from Bragança–Viseu Highway, Bela Vista: (MPEG 14928, holotype), Augusto Correia: Fazenda Cacoal: (MPEG 9949, paratype), Bragança: Parada Bom Jesus: (MPEG 2221, 8573, 8667, paratypes), Colonia Nova: (MZUSP 8378), Km 224 (formerly Km 74) from BR 316 Highway: (MPEG 10093, paratype), Santa Rosa: Estrada de Vigia: (MPEG 12593).

*Atractus arangoi* (N = 1).—COLOMBIA: Putumayo: Mocoa: (MLS 136, holotype).

*Atractus badius* (N = 4).—Unknown locality: (MZUSP four specimens not cataloged).

*Atractus boettgeri* (N = 1).—BOLIVIA: Cochabamba: Yungas: (NHM 1946.1.6.29, holotype).

*Atractus caxiuana* (N = 3).—BRAZIL: Pará: Melgaço: Floresta Nacional de Caixuaña: (MPEG 19657 holotype, MPEG 19964, 20128 paratypes).

*Atractus charitoae* (N = 1).—COLOMBIA: Amazonas: Vaupés: Taraira: (ICN 10095, holotype).

*Atractus canedii* (N = 1).—ARGENTINA: Anta: Salta: (FML 1082, holotype).

*Atractus collaris* (N = 10).—COLOMBIA: Amazonas: La Pedrera: (ICN 10112–10113); Caquetá: Florencia: (MLS 1324, 2782), Parque Natural Nacional Kaparú: (ICN 8144). ECUADOR: Napo: Pozo Petrolero Zabalo: (EPN 5216); Orellana: Yasuní: (QCAZ 5980); Sucumbios: Cuyabeno: (QCAZ 983, 986 1042).

*Atractus davidhardi* (N = 1).—COLOMBIA: Amazonas: Letícia: Vereda Muniyama: (ICN 10096, holotype).

*Atractus elaps* (N = 77).—BRAZIL: Unknown locality: (ZMH 4421, holotype of *Rhabdosoma brevifrum*), (IBSP 20314); Amazonas: Borba: (MNRJ 1523). COLOMBIA: Unknown locality: (MLS 182); Amazonas: Parque Natural Nacional Amacayacu: (IAvH 3211); Boyacá: Macanal: (MLS 2637); Caquetá: Unknown locality: (MLS 183); Florencia: (MLS 185, 187, 195, 197, 1316–1318, 1322–1323, 1326–1327, 1739, 2730, 2733–2739); Cauca: Santa Rosa: El Carmen: (IAvH 4410); Cundinamarca: Medina: (MLS 192), Sasaima: (MLS 2527), Guaicarani: Paratebueno: (MLS 188); Meta: Acacias: (MLS 191), San Juan de Arama: (IAvH 929), Villavicencio: (MLS 179, 189, 193, 196, 266, 1396, 2054–2055), Rio Ocoa south of Villavicencio: (MLS 190); Putumayo: Unknown locality: (MLS 180). ECUADOR: Western Ecuador: (NHM 1946.1.6.45, holotype in error); eastern Ecuador: Unknown locality: (EPN 6892, EPN s/n); Napo: Alto Napo: (EPN 6856, 8686), Archidona: (QCAZ 2101), Río Huataracu: (EPN 8687); Orellana: Balsayacu: Parque Sumaco (QCAZ 6502), Fuerte: (EPN 7324), Loreto: El Tená: (EPN 8688); Parque Nacional Yasuní: (EPN 2536, QCAZ 3249, 3959), Río Coca (QCAZ 440); Pastaza: Mera: (EPN 1175), Montalvo: Andoas: (EPN 758), Nueva Vida: Misión Agua Santa: (QCAZ 345), Puyo: (QCAZ 1277), Río Bobonaza (EPN 8678–8683), Río Tallín: Alto Bobonaza (EPN 8675–8677), Sarayacu–Pucayacu (EPN 8685); Sucumbios: Lagartococha: (EPN 8689), Lago Agrio: (EPN 5781), Shushufindi: (QCAZ 3303), Pichincha: Al Occidente: (EPN 8692 in error); El Oro: Santa Rosa: (EPN 8690–8691 in error).

*Atractus emmeli* (N = 17).—BOLIVIA: Beni: Yacuma: Estación Biológica Beni: (CBF 434); La Paz: Iturralde: (CBF 765), Iturralde: Laguna Piraña: (CBF 2321), Iturralde: Madidi: (CBF 758), Moxos: San Lorenzo:

(CBF 992) Santa Cruz: Andrés Ibañes: (MNKR 08, 17, 321, 3717), San Marcos: Rionegro: (MNKR 3718–3719). PERU: Unknown locality: (MHNSM 2313); Cusco: Camisea: Convención: (MHNSM 3467); Junin: Tarma: Yarinaqui Alto: (MHNSM 2653, 11144); Loreto: Coronel Portillo: (MHNSM 3101); Ucayali: Yarinacacha: (MHNSM 2653).

*Atractus emersoni* ( $N = 4$ ).—BRAZIL: Amazonas: Benjamín Constant: (ICN 10097, holotype; ICN 10098–10099, paratypes). COLOMBIA: Unknown locality: ICN not catalogued.

*Atractus franciscopavai* ( $N = 3$ ).—COLOMBIA: Amazonas: La Pedrera: (ICN 10100, holotype; 10101–10102, paratypes).

*Atractus gaiguae* ( $N = 4$ ).—ECUADOR: Napo: Estación Biológica Sacha: (EPN not catalogued); Pastaza: Bobonaza: (EPN 5217), Cotosaza: (EPN 8693, paratype), Misión: (EPN 752).

*Atractus guentheri* ( $N = 7$ ).—BRAZIL: Bahia: Almada: (CZGB 7563–7564), Barro Preto: (CHGB 823), Camacan: (MNRJ 6710), Ibicarai: (CHGB 6153), Ilhéus (CHGB 1584), Jussari: (CHGB 4896).

*Atractus heliobelluomini* ( $N = 1$ ).—COLOMBIA: Amazonas: La Pedrera: Cerro Jupatí: (ICN 10103, holotype).

*Atractus insipidus* ( $N = 1$ ).—VENEZUELA: Amazonas: Río Uraricará: Poste M-1: (MBUCV 3957, holotype).

*Atractus janethae* ( $N = 1$ ).—COLOMBIA: Amazonas: La Chorrera: (ICN 10104, holotype).

*Atractus lancinii* ( $N = 24$ ).—VENEZUELA: Aragua: Cumboto Road: (EBRG 590), Maracay-Ocumare Road: (EBRG 198–199, 291, 407–408, 698), Estación Biológica Rancho Grande: Parque Nacional Pittien: (EBRG 4338); Carabobo: Bárbula: (MHNLS 1750); Distrito Federal: Caracás: Parque Nacional El Avila: Canales del Naigata: (MHNLS 2043a, 2043b, 2044a, 2044b, 3147, 11417–11418, 11797); Miranda: Guacaipuro: (MHNLS 6848), Santenegas: (EBRG 4088), Santo Antonio de Los Altos: (MHNLS 2086, 12684, 15150, 16788); Yaracuy: Nirgua: Santa Teresa: (MHNLS 6381).

*Atractus latifrons* ( $N = 44$ ).—BRAZIL: Unknown locality: (MNRJ 20315, IBSP 20315); Amazonas: Balbina Hydroelectric Plant: (UFC 1367), Benjamin Constant: (MNRJ 729–732, 1289, 1517–1520, 1522), Manaus: (MNRJ 726–728), Río Purus (MNRJ 633); Rondônia: Samuel Hydroelectric Plant: (UFC 1430–1432). BOLIVIA: Beni: Río San Martín between Río Blanco and Río Negro (MNKR 595); Santa Cruz: Guarayos, Urubichá: (MNKR 3436–3439); Río San Martín (MNKR 505); Nuflo de Chaves: Oquinquia: Río San Martín: (MNKR 1021), Velasco: (MNKR 218, 520). PERU: Loreto: Maynas: Iquitos: (MHNSM 2250, 2292), Mishana: Río Nanay: (MHNSM 2590, 2616), Pebas: (MNRJ 2977, 2979, 2981), Requema (MHNSM 2884). COLOMBIA: Amazonas: La Pedreira: (MLS 210), La Pedreira: Río Caquetá: (IAvH 1483), Puerto Nariño: (MLS 1319–1321), Río Icara–Paraná: (MLS 945); Vaupés: Parque Natural Nacional Chiribiquete: Corregimiento Miraflores: (IAvH 4264).

*Atractus limitaneus* ( $N = 1$ ).—COLOMBIA: Amazonas: La Pedreira: (IBSP 9196, holotype).

*Atractus lucilae* ( $N = 7$ ).—COLOMBIA: Amazonas: La Pedreira: Puerto Córdoba: (ICN 10105 holotype, ICN 10106–10107 paratypes); Parque Natural Nacio-

nal Amacayacu: (IAvH 3871); Río Muriti–Paraná: (IAvH 4093, 4097); Vaupés: Puerto Bogotano: Lago Taraira: Río Apaporis: (IAvH 1914).

*Atractus maculatus* ( $N = 3$ ).—BRAZIL: Alagoas: Murici: Mata da Bananeira: (MUFAL 474–475), São Miguel dos Campos: Usina Ceresta: (MNRJ 3977).

*Atractus major* ( $N = 37$ ).—BOLIVIA: La Paz: La Paz: (CBF 2321). COLOMBIA: Amazonas: Leticia: (MLS 2011); Caquetá: Río Cuemani: Proradam: (IAvH 1798); Vaupés: Estación Biológica Kaparú: Lago Taraira: Lower Río Apaporis: (IAvH 2909); Putumayo: Puerto Caicedo: (ICN 10108). ECUADOR: Unknown locality: (EPN without number); El Oro: Santa Rosa: (EPN 8734); Napo: Alto Sindi: (QCAZ 3689), Boca del Coca: (EPN 8699); Orellana: Alto Napo: (EPN 8695, 8717); Misahualli: (QCAZ 3735); Yasuni: (QCAZ 3079); Pastaza: Curaray: Arajuno: Río Manderoyacu: (EPN 6413); Pastaza: (EPN 8694); Tiguino: (EPN 5146); Sucumbíos: Boca del Río Cuyabeno: (EPN 8697), Comuna Cofán Duvuno: (EPN 4911), Lago Agrio: (EPN 8184), Piso Tropical Oriental: (EPN 8696, 8701–8702); Zamora-Chinchi: Macas: (QCAZ 2178). PERU: Amazonas: Bagua: (MHNSM 2454, 2457); Cusco: Paucartambo: Alto Tono: (MUSA 674), Convención: (MHNSM 3469); Huánuco: (MHNSM 2911); Loreto: Loreto: (MHNSM 3078); Madre de Dios: Tambopata: (MHNSM 12129, 16571), Tambopata: Sachavacayoc: (MUSA 605); San Martín: Mariscas Caceres: (MHNSM 2240), San Martín: (MHNSM 2842); Ucayali: Coronel Portillo: (MHNSM 222, 2636, 3005).

*Atractus matthewi* ( $N = 8$ ).—VENEZUELA: Anzoategui: Macizo de Turimiquire: Cerro El Guamal: (EBRG 3793 and 3952–3954 paratypes, EBRG 4453 holotype of *A. nororientalis*, EBRG 4454 paratype of *A. nororientalis*, MNRJ 8127); Monagas: Caripe: (MBUCV 1669).

*Atractus natans* ( $N = 3$ ).—BRAZIL: Amazonas: Uarini: Estação Ecológica de Mamirauá: (MPEG 18838, 20213 paratypes); Pará: Caxiuanã: (MPEG 18836, holotype).

*Atractus occipitoalbus* ( $N = 13$ ).—COLOMBIA: Putumayo: El Orito (Sila-Haad, 2004). ECUADOR: Morona-Santiago: Carretera Limón-Macas (QCAZ 7263–64), Río Nepano: Mendez (EPN 8729); Napo: Río Hollín: (QCAZ 6268); Pastaza: Arajuno: Alto Napo: (EPN 8719–20), Cabeceiras del Arajuno: (EPN 8723); Río Bobonaza (EPN 8724–8727), Río Oglan: Alto Curaray (EPN 8721–8722), Puyo: Santana: (EPN 6474); Sucumbíos: La Bonita: (QCAZ 2779).

*Atractus pantostictus* ( $N = 132$ ).—BRAZIL: Minas Gerais: Belo Horizonte: (MHNCI 787, MNRJ 6474, 10909, IBSP 40757, 58592, MCNR 13, 27, 35, 88, 101, 129, 139, 145–48, 254, 453–454, 459, 516, 726, 929–941), Campo do Meio: (IBSP 50476), Conselheiro Lafaiete: (LZVUFOP 501, 614, 627), Itabirito: LZVUFOP 118, 158, 274, 282, 331, 426, 466–467, 622), Machado: (IBSP 57138), Ouro Branco: (LZVUFOP 421, 579–580), Ouro Preto: (LZVUFOP 26, 27–29, 33, 56, 82, 382, 425) Pirapora: Fazenda Triângulo Formoso; (MNRJ 4459, paratype), Uberlândia: (IBSP 54604–54605); Distrito Federal: Brasília: Jardim Zoológico: (MNRJ 4460–4466); Goiás: Aliança do Norte: (IBSP 43954), Cana Brava: (IBSP 26711), Minaçu: (IBSP 51433–51434); São Paulo: Areais: Fazenda Vargem Grande: (IBSP 40404), Barueri: (IBSP 45208), Boracéia: (MZUSP 3157, 3158



paratype); Campo Lindo, IBSP 9472, 49225; Campo Limpo Paulista: (IBSP 44152, 54651, 54896), Francisco Morato: (IBSP 54634), Franco da Rocha: (IBSP 27305, 42093, 54844 holotype), Jales: (MZUSP 4094), Jundiá: (MNRJ 6496, IBSP 2728, 10068–10069, 42646, 42664, 43192, 45624, 46228, 49267, 54235 paratype, 54512, 54661), Jarinu: (IBSP 41427), Itaperuna da Serra: (IBSP 54699), Orlândia: (IBSP 44537), Paranapiacaba: (MZUSP 2811), São José do Rio Preto: (IBSP 40028), São José dos Campos: (IBSP 27231, 27233, 29098, 37527, 40355, 44527, 45784, 45803, 45807), São Paulo: Peras: (IBSP 54655, 54886–54888), Pico do Jaraguá: (IBSP 42404), Pirituba: (IBSP 42485, 53545, 54641), Várzea Paulista: (IBSP 9862, 32501, 40855, 40857, 45167); Tocantins: Porto Nacional: Luís Eduardo Magalhães Hydroelectric Plant: (IBSP 64952–64966).

*Atractus paraguayensis* (*N* = 44).—ARGENTINA: Corrientes: San Luis del Palmar: Costa Grande: (UNNEC 84), Santo Tome: (UNNEC 4979); BRAZIL: Paraná: Pinhão: Rio Jordão: (MCP 7185, 7211, 7365), Pinhão: Rio Paraná: (MCP 7364); Rio Grande do Sul: Carazinho: (CRUPF 1180), Chapecó: (MCP 14013), Colorado: (CRUPF 1196), Derrubadas: (MCP 12387), Getúlio Vargas: (CRUPF 64), Ibraquitã: (CRUPF 587), Ijuí: (MCP 13726–13732), Ipira: (MCP 2913), Mato Castellano: (CRUPF 289, 516, 991–992, 1094), Pinheiro Machado: (CRUPF 257), Planalto: (MCP 5898–5899), Planalto: 4<sup>o</sup> Seção: (MCP 5915, 5997), Porto Mauá: (MCP 11609, 11611, 11623), Porto Vera Cruz: (MCP 11670), Santo Ângelo: (MCP 12516–12517), Tapejara: (CRUPF 477, 814), Santa Catarina: Concorórdia: Entre Rios: (MCP 2912) Peritiba: (MCP 2939), Piratuba: (MCP 2893–2894, 2897, 2902).

*Atractus poeppigi* (*N* = 12).—BRAZIL: Amazonas: Alto Rio Negro: (MNRJ 10837), Borba: (MNRJ 1523). COLOMBIA: Amazonas: Leticia: (MLS 133, 1313–1315). PERU: Amazonas: Bagua: (MHNSM 2380, 2447); Pasco: Cerro de Pasco: Oxapampa: (MHNSM 3485); San Martín: San Martín: (MHNSM 3133, 3337), Tarapoto: (MHNSM 3278).

*Atractus potschi* (*N* = 18).—BRAZIL: Alagoas: Maceió: (IBSP 48438, holotype); Bahia: Feira de Santana: Jaíba: (MZUEFS 454), Feira de Santana: Faz. Brasileiro: (MZUEFS 682), Teofilândia: (IBSP 57119); Sergipe: Salgado: (MZUSP 7001, 7195–7197, 7275–81), São Cristóvão: (MNRJ 14057–14058, MZUSP 11074).

*Atractus punctiventris* (*N* = 3).—COLOMBIA: Meta: Villavicencio: (holotype, MLS 254, formerly MLS 102; MLS 255–256, topotypes).

*Atractus reticulatus* (*N* = 31).—ARGENTINA: Corrientes: Galarza: Santo Tome: (UNNEC 7588), San Miguel: (UNNEC 256–257); Formosa: Naicneck: Colonia Aborigine: (UNNEC 7219); BRAZIL: Paraná: Unknown locality: (MNRJ 9820), São José dos Pinhais: (MNRJ 9086); Rio Grande do Sul: Candelária: (MNRJ 1261), Entre Rios: (CRUPF 309), Nicolau Vergueiro: (CRUPF 176), Passo Fundo: (CRUPF 96, 199, 213, 224–226, 249, 284, 304, 343, 376, 401, 416, 590, 686, 819, 829–830, 1064, 1204), São Lorenzo: (NHM 1946.1.27, holotype); São Paulo: São Paulo: (MNRJ 1524).

*Atractus riveiroi* (*N* = 2).—VENEZUELA: Amazonas: Marahuaca: (MHNLS 12889), Marahuaca: Campo Temiche: (MBUCV 7175 paratype, formerly UPR 49 [r-20]).

*Atractus ronnie* (*N* = 25).—BRAZIL: Ceará: Serra do Baturité: Guaramiranga: (CHUFC 2649, 2651, para-

types), Mulungu: (CHUFC 2645, paratype), Pacoti: (MNRJ 14194, holotype, MNRJ 14165–14196, CHUFC 1396, 2481, 2578, 2598, 2641, 2646–2647, 2652–2654, 2658, 2675–2676, 2678, 2733, 3500, 3502, paratypes).

*Atractus schach* (*N* = 17).—BRAZIL: Acre: Porto Walter: Rio Jurá: (MPEG 20376); Rio Branco: (IBSP 43394); Amazonas: Manaus: (IBSP 49430), Presidente Figueredo: Balbina Plant Hydroelectric: Rio Uatumã: (MPEG 17495, 17527); Pará: Bragança: Bom Jesus: (MPEG 11374), Caixuanã: (MPEG 20071, MPEG not catalogued), Capitão Poço: (MPEG 13267), Nova Vida: (MPEG 10347, 12255, 15791), Viseu: Bela Vista: (MPEG 3713, 10100), Km 11 PA-222: (MPEG 11569, 15165). PERU: Loreto: Corrientes: (IBSP 49433).

*Atractus serranus* (*N* = 32).—BRAZIL: Unknown locality: (IBSP 32857); São Paulo: Campinas: (IBSP 50861), Cotia: (IBSP 55698), Cubatão: (IBSP 9706), Engenheiro Marsilack: (IBSP 9075–76, 9088–89), Guarulhos: (IBSP 26999), Guarulhos: Km 21 Presidente Dutra Highway: (IBSP 27147, 27862), Ribeirão Pires: (IBSP 10136), Rio dos Campos: (IBSP 9267, 9437–9438, 10136), Rio Grande da Serra: (IBSP 54636, 54974), Santo Amaro: Marink-Santos Highway: (IBSP 4852), Santo André: (IBSP 53630, 55252), Santo André: Km 38 Santos–Jundiá Highway: (IBSP 42947), Salesópolis: Estação Biológica da Boracéia: (MZUSP 2193), São João: (IBSP 7002), São Luiz do Paraitinga: (IBSP 53924), Serra de Paranapiacaba: (IBSP 7200, 7239 holotype, 10589, 18645, 23518), Tapiraí: (IBSP 42963).

*Atractus snethlageae* (*N* = 28).—BOLIVIA: Pando: Manuripi: Reserva Nacional de la Vida Silvestre Amazônica: (MNKR 3275). BRAZIL: Unknown locality: (MNRJ 9842); Amazonas: Benjamin Constant: (IBSP 33369); Maranhão: Nova Vida: (MPEG 14986, 15422, paratype); Pará: Ananindeua: Lago Azul: (MPEG 16383–16385, paratypes), Belém: Ilha do Mosqueiro: (MPEG 2595, paratype), Oriximiná: Flona de Sapaceá Taquera: (MNRJ 14910–14911, 17877), Santa Bárbara: Benevides: (MPEG 3955, paratype), São João da Pratinha: (MPEG 10137, paratype), Viseu: Colônia Nova: BR 316 Highway: 10 Km from Rio Gurupi: (MPEG 10131, holotype), Viseu: Bela Vista: (MPEG 2543, 6845, 15973, paratypes), Tucuruí: (IBSP 46454); Rondônia: Ariquemas: (IBSP 41530), Porto Velho: Samuel Hydroelectric Plant: (CHUFC 1399). PERU: Cajamarca: Jaén: (MHNSM 3390); San Martín: San Martín: (MHNSM 3338); Corrientes: (IBSP 49431–32). COLOMBIA: Boyacá: Macanal: (MLS 140). ECUADOR: Eastern Andes: Unknown locality: (EPN 8718); Napo: Misahualli: (QCAZ 3476–3477), San Francisco de Borja: (QCAZ 1320), San Rafael: El Chaco: (1493–1494).

*Atractus steynmarki* (*N* = 2).—VENEZUELA: Bolívar: Chimanta: Churi-Tepui: (MHNLS 11004), El Dorado: (MBUCV 3872).

*Atractus tamessari* (*N* = 2).—VENEZUELA: Bolívar: UEI Tepuy: (MHNLS 15124), El Dorado–Santa Elena de Uairen: (MHNLS 5950).

*Atractus thalesdelemai* (*N* = 8).—Brazil: Rio Grande do Sul: Passo Fundo: Fazenda Corporação da Brigada Militar: (MNRJ 10052 holotype, 10053–10054 and 10080–10081 paratypes), Passo Fundo: Jardim Botânico: (CRUPF 172 and 801 paratypes), Passo Fundo: Vera Cruz: (CRUPF 405).

*Atractus torquatus* (*N* = 11).—BRAZIL: Amazonas: Manaus: Km 80 BR 174: (MZUSP 8533–34), Manaus:

Reserva Florestal Adolpho Ducke-INPA: (MZUSP 8455, 9588), Missão Manari: (MZUSP 14287), Novo Airão: (MZUSP 8205), Presidente Figueredo: Balbina Hydroelectric Plant: (MPEG 17516); Roraima: Missão Catrimani: (MZUSP 10405), Rio Catrimani: Cachoeira Cujubim: (MZUSP 7303). COLOMBIA: Amazonas: Vaupés: (ICN 10111). PERU: Loreto: Rio Ampiyacu: Estiron: (MZUSP 4380). VENEZUELA: Amazonas: Frente 20: (MHNLS 14488); Bolivar: El Dorado: (MBUCV 1406).

*Atractus trilineatus* ( $N = 14$ ).—BRAZIL: Roraima: Boa Vista: (MZUSP 9112), Boa Vista: Taiano Region Colônia Coronel Mota: (MPEG 479); Ilha de Maracá: (MZUSP 9270), Mucajá: (MZUSP 10473), Rio Catrimani: Cachoeira do Cujubim: (MZUSP 6396–6397, 6964, 7304–7305), Rio Jundiá: Catrimani's tributary: (MZUSP 6401, 6403): Santa Maria do Boaçu: (10328). VENEZUELA: Monagas: Rio Guarapiche: (EBRG 2602); SUCRE: Sabaneta Del Pílor: (MHNLS 13333).

*Atractus trihedrurus* ( $N = 32$ ).—BRAZIL: Paraná: Guaratuba: UHE Guaricana: (MHNCI 851), Piraquara: (IBSP 3067, paratype); Santa Catarina: Campo Alegre: (IBSP 32664); Campo Grande: Rio Negrinho: (IBSP 32367, 32369), São Bento do Sul: (IBSP 9111, IBSP 3098 holotype, MZUSP 9439), São Paulo: Guapiara: (IBSP 33717, 34360, 34409), Ibiúna: (IBSP 46476, 46658, 56474), Juquitiba: (IBSP 33930, 44676, 46604, 53565, 54703, 62215, 62860, 68219), Miracatu: (IBSP 58763), Piedade: (IBSP 49752, 50280, 58413), Ribeirão Pires: (IBSP 31188, 42906), Tapiraí: (IBSP 42222, 46605, 52636, 56938).

*Atractus univittatus* ( $N = 31$ ).—COLOMBIA: Meta: Unknown locality: (ICN 8264), Acacias: (ICN 10651), Cubaral: (ICN 10695), Lomalinda: (IAvH 950, 954), Parque Natural Nacional Cueva de Los Guacharos: (IAvH 1002), Restrepo: (ICN 6567, 6902, MLS 2530, 2961), Villaviciencio: (IAvH 2466, ICN 2699, 2716, 2996, 6129, 7104). VENEZUELA: Aragua: Maracay-Ocumare Road: (EBRG 292), Maracay: El Limon: (EBRG 3880); Barina: Barinitas: (MHNLS 16762), Reserva de Fauna Sabanas de Anaro: (EBRG 2993); Carabobo: Cachinche: Sector Sabanita: (EBRG 4589), San Rafael Hydroelectric: (MHNLS 5622); Cojedés: San Carlos: Manrique: (MHNLS 13834); Distrito Capital: Caracas: Parque Nacional El Ávila: Canales del Naigata: (MHNLS 11397), Parque Nacional El

Ávila: La Guairá: (MBUCV 2030); Miranda: Guaicoco: (MBUCV 8355); Yaracuy: Nirgua: (EBRG 3892).

*Atractus vittatus* ( $N = 8$ ).—VENEZUELA: Aragua: Unknown locality: (IBSP 41082); Distrito Federal: Caracas: (MBUCV 703), Colonia Tavor: (EBRG 700, 703, 2959, 4059, 4092), El Junquito-Colonia Tavor Road: (MBUCV 415); El Limon: Las Aguaitas: (MHNLS 5159).

*Atractus zebrinus* ( $N = 93$ ).—BRAZIL: Unknown Locality: (IVB 1548, NHM 61.4.18.12–13); Espírito Santo: Santa Tereza: (MNRJ 733–734); Minas Gerais: Bocaina de Aiuruoca: (IBSP 6463), Camanducaia: (IBSP 28868–28869, 32453, 40106, 41443, 44794, 45431, 45620, 45622, 45691, 46286, 51491, 51683, 54818, 67697), Delfim Moreira: (IBSP 57476), Extrema: (IBSP 68962), Itabira: (IBSP 71376), Itamonte: (IBSP 43154), Liberdade: (MNRJ 6497), Monte Verde: (IBSP 33499, 51683, 53839, 60927, 61924), Ouro Preto: (LZVUFOP 19, 27, 45, 86, 133, 369), Paraisópolis: (IBSP 71285), São Gonçalo do Rio Abaixo: Peti: (MNRJ 9298), Sapucaí-Mirim: (IBSP 56953, 61385, 62660–62661, 66361, 70432) Paraná: Campo Largo: (MHNCI 4818), Votuverava: (IBSP 12893); Rio de Janeiro: Cachoeiras de Macacú: (MNRJ 7064–7065), Itaboraí: (MHNCI 1295), Nova Friburgo: (MNRJ 6322, 6498), Petrópolis: (IVB 1203, 2485, MNRJ 4467–4470, 10091), Rio de Janeiro: (NHM 54.4.18.12), Teresópolis: (IBSP 41054, 41059, MNRJ 12899), Teresópolis: Parque Nacional da Serra dos Órgãos: (MNRJ 6495), Visconde de Mauá: (IBSP 48839); Santa Catarina: Peritiba: (IBSP 44049); São Paulo: Apiaí: Serra Formosa: (IBSP 52316), Campos do Jordão: (IBSP 7899, 44190, 50862, 54326, 68189), Cubatão: (IBSP 45193), Cunha: (IBSP 46348), Guapiara: Fazenda Oriente: (IBSP 33717), Joanópolis: (IBSP 55090, 57017–57018, 58310), Ribeiras: Fazenda Cobalto: (IBSP 43733) Salesópolis: Estação da Boracéia: (MZUSP 2194), Santo Antônio do Pinhal: (IBSP 21949, 25020–25021), Santo Antônio do Pinhal-Engenheiro Lefèvre Road: (IBSP 16435), São Bernardo do Campo: (IBSP 56207), São José do Barreiro: (IBSP 70789–70791, 71018), São Paulo: (IBSP 4551), Três Irmãos Hydroelectric Plant: (IVB1519).

*Atractus zidoki* ( $N = 3$ ).—BRAZIL: Amapá: Serra do Navio: (MPEG 16437, MPEG not catalogued, MZUSP 2840).