A REVISION OF THE 1990 IUCN LIST OF THREATENED ANIMALS

The IUCN Species Survival Programme, led by Simon N. Stuart, is carrying out a revision of the species and subspecies of the 1990 Red List of Threatened Animals, in collaboration with Brian Groombridge, Coordinator of the Animals Programme at the World Conservation Monitoring Centre, Cambridge, England. The deadline for the revision is 31 December 1993, so that it can be presented and discussed at the IUCN General Assembly in January 1994. The format and content will be improved in two stages in the next two editions. The 1993 revision, which will be published by Chapman and Hall, will provide a new format to make the book easier to use as well as visually more attractive: new contents will include country distributions along with summary tables, thematic maps, as well as the lists of extinct and threatened species. The succeeding revision in 1996 will make use of the new IUCN system for assessing and categorising threatened species, which is expected to be finalised and formally approved during 1994.

The new information required for the 1993 edition includes: a revision of the list in terms of which species should be added, removed or recategorised. Any changes should be documented as fully as possible. Simon Stuart has specifically requested PSG members to contribute to this revision.

Anthony Rylands, Co-Vice Chairman for the Neotropical Section of the PSG, has drafted a preliminary revision concerning the South American primates, and Ernesto Rodriguez Luna is currently preparing a report for the Mesoamerican region. The modifications suggested by Rylands were prepared from the available literature concerning the conservation status and taxonomy of the species and subspecies. 1) Following the studies of Skinner (1991) and Moore and Cheverud (1992), Saginus o. geoffroyi should be considered a distinct species and S. o. oedipus should, therefore, be listed as a species (see p. 4). 2) Following the taxonomic revision of Callithrix by de Vivo (1991; see also Mittermeier et al., 1992), all forms of Callithrix should be listed as subspecies. 3) Common names: Callithrix chrysomelas - golden-white tassel-ear marmoset; Callithrix intermedia - marmoset (no common name available); Callithrix leucopus - golden-white bare-ear marmoset; Brachyteles arachnoides - muriqui; Callithrix calvus - bald uakari. 4) Additions to list: Callithrix kuhli (V) and Callithrix geoffroyi (V or E) (see Mittermeier et al., 1989; Coimbra-Filho, 1984; Oliver and Santos, 1991); Callithrix nigricap (V) (see Ferrari and Lopes, 1992); Aotus caunutus griseimembra (V or E), Aotus brumbacki (V or E), and Callitebus cupreus ornatus (V or E) (see Hernández-Camacho and Defler, 1991); Cebus apella xanthosternos (E), and Cebus apella robustus (V or E) (see Coimbra-Filho, 1986; Mittermeier et al., 1989; Oliver and Santos, 1991); Cebus kaaporí (E) (see Queiroz, 1992); Chiroptera satanas utahicki (E) (see John and Ayres, 1987); Aotus belzebul ululata (I or E) (see Bonvicino et al., 1989; Coimbra-Filho, 1990). 5) Removals from the list: Saginus bicolor ochraceus and S.b.martinsi (current listing I); Saginus imperator subgrisescens (current listing E) - forms which, although having quite small distributions, are in relatively isolated regions and/or occur in large protected areas; Chiroptera albinus (current listing V) - a relatively large distribution. 6) Re-
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Categorisation: Callithrix humeralifer chryssoleuca - as C. chryssoleuca from K to V; Callithrix humeralifer intermedius - from K to V as C. intermedius; Callicus personatus personatus and C. p. migrifrons - from E to V, with C. p. melanochar and C. p. barbaraabrowni remaining as E; Alouatta fusca fusca - from V to E and A. f. clamitans remaining as V (see Oliver and Santos, 1991); Lagotricha lagotricha lugens - from V to E (see Hernandez-Camacho and Defler, 1991).


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References


World Wildlife Fund, Washington, D.C.


A Proposal for the Conservation of the Muriqui in the State of Espírito Santo, Southeastern Brazil

The muriqui, Brachyteles arachnoides, the largest of the Neotropical primates, is endemic to the Brazilian Atlantic forest, occurring from the state of Bahia south to the state of São Paulo. The majority of its populations have disappeared as a result of drastic deforestation and hunting, and it is today highly threatened with extinction. Except for the large tracts of forest along the "Serra do Mar" in the south-east of the state of São Paulo, surviving populations of muriquis are restricted to small forest fragments with an uncertain future and subject to the deleterious effects of endogamy (see Mittermeier et al., 1987). Recent studies have confirmed that the muriqui populations in the state of São Paulo are genetically different to those in the northern part of the range, at least in the state of Minas Gerais, where they live in more fragmented habitats, arguing for the urgent need for the
preservation of these populations as well as those in the state of Espírito Santo to the east.

In his classic work on the muriqui, Aguirre (1971) mentioned the occurrence of isolated groups in some localities in Espírito Santo. These included a highly threatened population (40-50 individuals) at Brejatuba, municipality of Afonso Claudio, and at the Córrego São Fernando, municipality of Domingos Martins (7-8 individuals). We have been unable to confirm the continued survival of these populations. Aguirre (1971) also reported the existence of 10-12 muriquis at Barra Encoberta, and a further 7-8 individuals at Jatibocas, both in the municipality of Itanara. Scott Lindbergh (pers.comm.) recently confirmed the continued survival of a group at the latter locality (cited in Mendes, 1991), and we have also received reliable reports of the species' presence in privately-owned forests in the municipalities of Santa Teresa, Santa Leopoldina, and Domingos Martins, the last a 400 ha forest in the Fazenda Belon, 4 km south-east of the Pedra Azul State Park (993 ha) (Mendes, 1991). Muriquis are also known to exist in the Caparão National Park (on the border with the state of Minas Gerais; 16,194 ha) and Augusto Ruschi Biological Reserve (formerly Nova Lombardia; c. 4,000 ha) (see Fig.1). In the latter the population density is extremely low, but the area is relatively well protected. The Caparão National Park is larger (although not all forested), and undoubtedly a very important area for muriquis, although its legal status has yet to be resolved, it remains largely unprotected, and suffers from hunting.

The uncertain future of the small and isolated populations in private-lands argues for a management plan involving confirmation of the size and composition of remaining groups, and their translocation to such areas as the Augusto Ruschi Biological Reserve, which could undoubtedly support higher numbers than are found at present. Valuable information could also be obtained concerning the species' morphology and genetics. This proposal would obviously involve educational campaigns so that local landowners can be made aware of the objectives and value of these measures. A program of this sort is technically difficult and evidently subject to risks. The remaining populations in the state of Bahia are practically extinct (no confirmed localities exist today), and those in Minas Gerais are few, small, and isolated, and we argue that such measures are unavoidable and urgently needed in order to prevent the disappearance of the muriqui in the state of Espírito Santo in the very near future, and to contribute to the preservation of this remarkable animal in the northern part of its range encompassing these three states.

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Localities in the state of Espírito Santo where populations of muriquis have been confirmed. Protected areas: 1 - Augusto Ruschi Biological Reserve; 2 - Caparão National Park. Privately-owned areas: 3 - Santa Teresa; 4 - Itanara; 5 - Santa Leopoldina; 6 - Fazenda Belon.

References


Mittermeier, R.A., Valle, C.M.C., Alves, M.C.,

THE BARE-FACE TAMARINS Saguinus oedipus oedipus and Saguinus oedipus Geoffroyi: SUBSPECIES OR SPECIES?

Hershkovitz (1977) divided the tamarins, genus Saguinus, into three sections - hairy-face (including the S. nigricollis group, S. mystax group, and the S. midas group), mottled-face (S. inustus), and bare-face (S. bicolor group and S. oedipus group). The two groups of bare face tamarins are recognized by three independent features: 1) they occur north of the Rio Amazonas; 2) they diverged independently from hairy-face tamarins and; 3) they attained a grade of facial depilation that distinguishes them collectively or individually from other callitrichids. The Saguinus bicolor group (comprising three subspecies north of the Rio Amazonas and east of the Rio Negro in Brazil) are believed to have evolved from a hairy-face ancestor south of the Rio Amazonas-Solimões, west of the Rio Madeira, due to a river bend cut-off isolating them to the north of the Rio Amazonas-Solimões. Following Hershkovitz (1977), the Saguinus oedipus group comprises the Colombian and Panamanian/Costa Rican bare-faced tamarins, Saguinus oedipus oedipus (cotton-top tamarin), Saguinus oedipus geoffroyi (the red-crested bare-face tamarin or rufous-naped tamarin), and Saguinus leucopus (silvery-brown bare-face tamarin). Based on his presumption that S. oedipus represents the "culmination of an evolutionary line of tamarins that diverged from a hairy-face ancestor of the upper Amazonian region" (p.753), Hershkovitz argued that a divergent stock must have spread north along the eastern Andes and filtered into the valley between the Cordilleras Central and Oriental, and west into Panama and Central America giving rise today to S. leucopus and S. oedipus (including subspecies oedipus and geoffroyi). S. leucopus is described by Hershkovitz (1977) as a hairy-cheeked quasi-bare-face species preserving most of the intermediate characters connecting S. oedipus with hairy-face tamarins. S. o. geoffroyi (Colombian Choco, Panama and bordering parts of Costa Rica) is considered to be more primitive than S. o. oedipus (tropical lowlands

isolated between the Rios Atrato and Cauca-Magdalena). Hershkovitz's arguments regarding the evolution of these forms and the classification of the forms oedipus and geoffroyi as subspecies are based on pelage patterns and coloration, cranial and mandible morphology, and pinna size.

Mittermeier and Coimbra-Filho (1981; see also Mittermeier et al., 1988; Rylands et al., 1993) did not recognize the subspecific status of the two forms oedipus and geoffroyi, arguing that there is no evidence of intergradation between them and that "S. oedipus and S. geoffroyi are at least as differentiated from one another as are the members of the Callithrix jacchus group" (which they also argued to be valid species), and following the suggestion of Thornton (1976) that the cotton-top tamarin was more closely related to S. leucopus than to S. geoffroyi. Thornton (1976: p.13) expressed the hope that Hershkovitz's 1977 monograph would test his hypothesis but it did not, and the question remained open until the publication of some recent articles reporting on independent studies of body weights and the morphology of the three tamarins.

Tsunehiko Hanihara and Masahito Natori of the Jichi Medical School, Japan, followed Hershkovitz's (1977) classification in their examination of the dental morphology of S. fuscicollis, S. nigricollis, S. labiatus, S. mystax, S. leucopus and S. oedipus (Hanihara and Natori, 1987). Multivariate analysis of their measurements grouped the moustached tamarins (S. labiatus and S. mystax), the saddleback and black-mantle tamarins (S. fuscicollis and S. nigricollis), and the bare-face tamarins (S. leucopus and S. oedipus). However, their comparison of S. o. geoffroyi and S. o. oedipus showed that although they are similar, they are more different to each other than are the components of the pairs S. fuscicollis/S. nigricollis and S. mystax/S. labiatus, and for this reason they argued that they should be considered distinct species, a taxonomy adopted in their subsequent publications (Natori and Hanihara, 1988, 1992).

Carol Skinner (1991), of the Edinboro University of Pennsylvania, examined differences in body weight and morphological characters, comprising four body (tail, head and body, hind foot and ear) and 13 cranial and dental measurements. S. geoffroyi (486 g, N = 53) were found to be significantly larger than S. oedipus (406 g, N = 23), and morphologically more similar to S. leucopus than to S. oedipus in 16 of the 17 morphological
characters studied. Likewise, *S. oedipus* was more similar to *S. leucopus* than to *S. geoffroyi* in 11 of the 17 traits. Skinner also discussed the pelage coloration and patterns of the three forms (emphasizing the differences rather than the similarities demonstrated by Herschkovitz, 1977), along with aspects concerning hybridization and intergradation in *Saguinus* in general.

Allen Moore (University of Kentucky, Lexington) and James Cheverud (Washington University School of Medicine, St. Louis) also gave specific attention to the taxonomic affinity of the bare-faced tamarins, examining their facial morphology (Moore and Cheverud, 1992). Quoting these authors (p.73) "...A variety of multivariate statistical analyses including discriminant function and cluster analysis suggest that *S. oedipus* and *S. geoffroyi* differ morphologically at a level consistent with species-level distinctions. The extent of differences between these taxa is large..." and later "...a comparison of collecting localities revealed that the variation we observed among *S. oedipus* and *S. geoffroyi* was not clinal but presented a large morphological discontinuity at the boundary between taxa...". Like Skinner (1991), they found that *S. leucopus* was more similar to *S. oedipus* than either is to *S. geoffroyi*. Differences between *S. oedipus* and *S. geoffroyi* were much greater than those between *S.fuscicollis* subspecies (Cheverud and Moore, 1990).

**References**


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**News**

A NEW SPECIES OF UNTUFTED CAPUCHIN FROM THE BRAZILIAN AMAZON

A new form of untufted capuchin, christened the Ka'apor capuchin, was recently described by Helder Queiroz of the Zoology Department of the Goeldi Museum in Pirenópolis. The scientific name was derived from Ka'apor, the skin and skull of two *Sapajus* from the Ka'apor Indian Reserve, east of the lower Maranhão (02°36'S, 47°54'W), which was established in 1987. The name describes the pigmentation pattern of the skin - MPEG 28503. The right bank of the Pindaré, which flows into the right bank of the Tapajós, is the most restricted area of the Ka'apor rivers in the region. Subsequent exploration showed that the Ka'apor capuchin is probably restricted to the Pindaré and Pimenta rivers, being defined as the extent of the lowland forest in the middle Maranhão basin. The eastern bank of the river is known as the eastern basin of the River Tapajós, which is the most restricted area of the Ka'apor. The name is derived from the Tapajós, which is the name of the river where the species was first encountered. Of interest is the fact that Queiroz (1992) has described five species of untufted capuchins, obtained from different parts of Brazil and the University of Notre Dame.

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Museum in Pará, Brazil (Queiroz, 1992). The scientific name given is *Cebus kaaporii*. It was first recorded in March 1990 through the finding of a skull and skin in the Gurupi Indian village of the Ka'apor in the Alto Turiaçu Indian Reserve, east bank of the Rio Gurupi in the state of Maranhão (02°40'S, 46°20'W), given as the paratype locality (preserved in the zoological collection of the Museu Paraense Emílio Goeldi, Belém, Pará, MPEG 21978). A holotype locality was established later, in August 1991, through the collection of a juvenile female (skull and stuffed skin MPEG 22025) from Quadrant 7, 10 km southwest of the Chega-Tudo Prospection (02°30'S, 47°30'W) (Carutapera, Maranhão), near the right bank of the Rio Gurupi. Queiroz (1992) describes the principal features of this new species as follows: "the longest bodied untufted species of capuchin monkey, with a silvery agouti mane and silvery grey shoulders and tip of tail. Arms and hindlimbs agouti. Hands and feet black and dark brown. Triangular black cap at crown with a black stripe down to nose. Forehead and face slivery grey and beige. Occurring south of Amazonas river, possibly restricted to the area between Gurupi and Pindaré rivers in Maranhão State, Brazil."

Subsequent expeditions to check on the distribution of the ka'apor capuchin revealed that it is today probably restricted the region between the Rio Gurupi and Pindaré, with the northeastern limit being defined by the border of the Amazonian lowland forest within the "cocais" ecosystem of middle Maranhão, extending at some points to the eastern bank of the Rio Pindaré in its middle reaches, west of the locality SANTA LUCIA. The northern limit lies south of Maracacum, in the basin of the Rio Maracâm, and the southern limit is defined by the northernmost forests of Buriticupu. It is not definitely known to occur west of the Rio Gurupi, although some interviews with local inhabitants 5-10 km to the west of the river suggested it might. It would seem that it certainly occurred west of the Rio Gurupi in the past, possibly as far as the Rio Amazonas, to the Rio Tocantins. In 1906, Emílio Goeldi and G. Hagemann recorded six capuchin monkey specimens in the Museu Goeldi collection from the Rios Acará and Capim, which they referred to as *Cebus capucinus*, but with a description similar to that of *Cebus kaaporii*. These specimens have unfortunately been lost. Of interest too is a specimen, not recorded by Queiroz (1992) but probably belonging to this species, obtained by A.B.M. Machado (Federal University of Minas Gerais) and P.F.S. Pereira (University of São Paulo) from the market in Belém, Pará, but originating from the Rio Gurupi, Maranhão (A.B.M. Machado, unpub. data). The animal was identified by C. da Cunha Vieira, and listed by Machado (1963) as an adult female *Cebus nigrivittatus*. The skin was deposited in the Museum of Zoology of São Paulo.

Queiroz (1992) argued that the present known distribution of approximately 15,000 km² is one of the smallest known ranges of Amazonian cebids. The range of *C. kaaporii* encompasses the Gurupi Biological Reserve, and the Caru and Alto Turiaçu Indian reserves. It is however hunted in these reserves, which are also subject to continuing degradation due to logging, deforestation, squatters and goldminers. Certainly its known range is within one of the most devastated regions of the Amazon. In addition to these threats, the entire area is undergoing a recent and active process of colonization and industrialization being as it is within the Greater Carajás development program, and traversed by the Carajás railroad and numerous highways. Queiroz (1992) concluded that *C. kaaporii* is a threatened species. The endangered black saki, *Chiroptes satanas satanas* has a similar distribution although extending north and west to the Rio Amazonas and Rio Tocantins. The widespread destruction of the forests of the region would indicate that *C. kaaporii* should also be considered endangered.

The principle argument used by Queiroz (1992) for the species status of *C. kaaporii* is its disjunct distribution, *C. olivaceus* being restricted to the north of the Rio Amazonas. However, as mentioned above, he also presents evidence for its (likely) occurrence in the past as far as Belém, and presumably the Rio Tocantins. Queiroz argued that speciation processes are likely to have occurred due to its isolation by the Rio Amazonas, although at least two other primate species traverse the lower Rio Amazonas without any evident speciation or subspeciation: *Cebus apella* and *Saimiri sciureus*. Other differences which Queiroz cited to reinforce his case for the species status of the ka'apor capuchin include pelage coloration, and his impression, based on the single adult male, that *C. kaaporii* is "longer-bodied and less robust than other untufted species" (p. 9). Queiroz (1992) concluded that “there is little to separate the species on the basis of external and cranio-metric and morphological characteristics" (p. 9), although his measurements of the maximum cranial length of five adult male *C. olivaceus* indicated that it is
larger than the other untufted species, including C. kaapi, and possibly indicative of a degree of divergence of the two forms. The evidence for the species' status of C. kaapi is slim. Resolution of the question of whether it is a valid species or not will depend on a taxonomic revision of the untufted group of the genus, along with a wider range of morphological measurements on additional individuals.

References


LEGAL PROTECTION FOR BRAZIL'S ATLANTIC COASTAL FOREST

The Atlantic Coastal forest once stretched uninterrupted along the eastern coast of Brazil from the north-east to the far south in the state of Rio Grande do Sul. Definitions of its limits are controversial, but the broadest include the humid evergreen forests along the coast, deciduous and semi-deciduous forests inland in the south and south-east, the Araucaria pine forests and upland Lauraceae forests in the south, as well as the coastal scrub forest (restinga), mangrove swamps and forests, and savanna and marlwood enclaves. In the past, the area covered by the Atlantic forest exceeded 1,000,000 km², more than 12% of the area of Brazil (Rizzini and Coimbra-Filho, 1988; Câmara, 1991).

In 1990, it received complete legal protection, with the publication of a short Presidential Decree No 99,547, dated 25th September 1990. It succinctly prohibited, for an undetermined period, the cutting and exploitation of the native vegetation of the Atlantic forest, and delegated responsibility to the Brazilian Institute for the Environment and Renewable Natural Resources (Ibama) for the rigorous fiscalization of existing projects in the area. This Decree put the onus on each of the State Superintendencies of Ibama to define the areas of Atlantic forest in their respective states, a cause of some consternation and considerable argument. It was later revoked by Decree No 750, dated 10 February 1993 (published in the Diário Oficial do Estado 11 February 1993), which provided a more detailed and considered legal basis for the exploitation of the natural resources of the Atlantic forest. The first article prohibits the cutting, exploitation or suppression of primary vegetation or forest in middle to advanced stages of regeneration, unless under special circumstances (development projects of public use or social interest), with the express permission of the environmental agency of the respective State, and prior approval by Ibama and the National Environment Council (CONAMA), following due studies and an environmental impact report. The second article states that selective exploitation of certain native species may be carried out under the following conditions: 1) that it in no way affects species other than those to be exploited; 2) that previous studies should be carried out concerning stocks and the guaranteed survival of the species involved; 3) the area involved and the maximum annual harvest should be defined, and 4) prior authorization from the relevant state organization. A complementary clause states that the requirements of this article do not apply to the use of plant species within the properties of traditional human populations, which however remains dependant on due authorization from the relevant state organization. The 3rd article defines the Atlantic forest as follows: forest formations and associated ecosystems within the limits defined by the 1988 map of the Brazilian Institute for Geography and Statistics (IBGE) - Dense, mixed and open ombrophilous Atlantic forest, seasonal deciduous and semi-deciduous forest, mangroves, coastal scrub and scrub forest (restinga), high altitude woodland (campos de altitude), humid forest enclaves in the north-east (brejos). Article 4 determines that the suppression or exploitation of secondary vegetation in early stages of regeneration will be regulated by Ibama, with due consideration given to the respective state environment institutes and councils and the National Environment Council (CONAMA). A complementary clause says that this Article does not apply to states having 5% or less of the original area covered by Atlantic forest, and that in these cases all vegetation considered to form part of the Atlantic forest ecosystems defined in Article 3 are subject to the regulations in Article 1. Article 5

provides that all forest areas of the Atlantic forest, with the exception of those in the most advanced stages of regeneration, may be carried out under the relevant environmental agency, and prior approval by Ibama and the National Environment Council (CONAMA), following due studies and an environmental impact report. The first clause states that selective exploitation of certain native species may be carried out under the following conditions: 1) that it in no way affects species other than those to be exploited; 2) that previous studies should be carried out concerning stocks and the guaranteed survival of the species involved; 3) the area involved and the maximum annual harvest should be defined, and 4) prior authorization from the relevant state organization. A complementary clause states that the requirements of this article do not apply to the use of plant species within the properties of traditional human populations, which however remains dependant on due authorization from the relevant state organization. The 3rd article defines the Atlantic forest as follows: forest formations and associated ecosystems within the limits defined by the 1988 map of the Brazilian Institute for Geography and Statistics (IBGE) - Dense, mixed and open ombrophilous Atlantic forest, seasonal deciduous and semi-deciduous forest, mangroves, coastal scrub and scrub forest (restinga), high altitude woodland (campos de altitude), humid forest enclaves in the north-east (brejos). Article 4 determines that the suppression or exploitation of secondary vegetation in early stages of regeneration will be regulated by Ibama, with due consideration given to the respective state environment institutes and councils and the National Environment Council (CONAMA). A complementary clause says that this Article does not apply to states having 5% or less of the original area covered by Atlantic forest, and that in these cases all vegetation considered to form part of the Atlantic forest ecosystems defined in Article 3 are subject to the regulations in Article 1. Article 5

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provides the restrictions regarding the provision of permission for urban projects or the use of soils in areas of secondary vegetation in medium or advanced stages of succession. Any project presented must conform to the development plan of the municipality and the existing legislation concerning environmental protection, and must have prior consent from the relevant state organization, with the conditions that: 1) the area does not include plant or animal species considered threatened with extinction; 2) the area plays no role in protecting springs or in the control of erosion and; 3) the area has no exceptional scenic value. Article 6 states that the definition of primary vegetation, and secondary vegetation in early, middle and late stages of succession will be carried out by Ibama, in consultation with the state environmental organizations, to be subsequently approved by CONAMA. A complementary clause determines that any intervention involving primary forest or forest in late or middle successional stages is prohibited until Ibama have provided their legal definition. Article 7 provides for the total protection of vegetation which harbours animal or plant species threatened with extinction, or which acts as a corridor between primary forests or those which are considered to be in late or middle successional stages, or which serve to protect areas around conservation units, as well as areas of permanent preservation determined by Articles 2 and 3 of Law Nº 4771 of 15 September 1965. Article 8 states that areas of primary forest or forest in middle or late successional stages will maintain their status as such even if burnt or cut illegally. Article 9 gives CONAMA the administrative responsibility for any decisions arising from the Decree, according to the terms of Article 8, part III, of Law Nº 6938 of 31 August 1981. Article 10 states that all current or future enterprises which do not conform with the determinations of the decree must inform the relevant authorities of their activities within five days. According to Article 11, fiscalization of the existing development projects within the Atlantic forest will be coordinated by Ibama in conjunction with the relevant state authorities. Infractions will be dealt with by the National Environment System (SISNAMA) and will involve a) the application of relevant administrative sanctions; b) an immediate report to the Public Ministry for police and civic inquiries for penal action and; c) a report to the relevant council governing the professional activities of those responsible for the project and the infraction according to the specific legislation. Article 12 determines that the Ministry of the Environment will carry out measures to ensure rigorous compliance with the determinations of the Decree, and will stimulate technical and scientific studies with a view to the conservation and rational management of the Atlantic forest and its biodiversity. The final two articles determine the immediate application of the decree as from 11 February 1993 (Article 13), and revoke the former Decree Nº 99547 of 25 September 1990.

This decree is evidently a considerable improvement on the first, providing as it does some leeway for a more rational approach to the protection of the remains of the Atlantic forest, with the underlying theme being one of biodiversity and ecosystem conservation coupled with the elusive concept of sustainable development for the region. The complexity and variety of the ecosystems included within the Atlantic forest means that the task, still pending, of defining the concepts of primary forest systems, and the late, middle, and early successional stages (Article 6), will not be an easy one. The tendency for regional definitions depends on an adequate mapping (and ground-truthing), and is unfortunately very much subject to whim and political/ economical pressures in each state. In addition, there is at present considerable controversy regarding the definition of "traditional populations" (Article 2). However, the single most dramatic issue is the almost complete lack of wherewithal on the part of the federal (Ibama) and state governments to enforce the decree, and its norms and restrictions. Widespread forest destruction continues unchecked in such important areas as southern Bahia,
exemplified by the removal of more than 90,000 ha of primary forests by one company alone, the Veracruz Cellulose Co., which since 1985 has been clearing areas for *Eucalyptus* plantations in the municipalities of Porto Seguro, Eunápolis, Santa Cruz de Cabrália and Belmonte.

References


PSG MEMBER RECEIVES FLORIDA AUDUBON SOCIETY AWARD

The 1993 Latin American Conservation Award of the Florida Audubon Society was presented to Ilmar Santos, member of the SSC Primate Specialist Group and Edentate Specialist Group, and an IUCN Regional Member for Brazil. Ilmar Santos, a former trainee of the Training Program of the Jersey Wildlife Preservation Trust, Jersey (in 1984), began his career working on the conservation of the Atlantic forest primates, especially the muriqui, *Brachyteles arachnoides*, under the supervision of Prof. Célio Valle, also a PSG member, at the Department of Zoology, Federal University of Minas Gerais (UFMG). Since 1982 he has coordinated numerous expeditions and faunal inventories in the Atlantic forest region of the south-east, as well as the *caatinga* and *cerrado* of north-east and central Brazil. The focus was always threatened and endangered species. Notable were two expeditions in 1986-87 with William Oliver (then of the Jersey Wildlife Preservation Trust) to the Atlantic forest of Bahia and Espírito Santo, concentrating on an evaluation of the conservation status and distribution of the thin-spined porcupine, *Chaetomys subspinosus*, but including data on *Sphiggurus insidiosus*, as well as primates and sloths. The project was financed by the Jersey Wildlife Preservation Trust, Wildlife Preservation Trust International, Philadelphia, the Program for Studies in Tropical Conservation of the University of Florida, Gainesville, and the World Wildlife Fund, Washington, D.C. As a result of these expeditions, Oliver and Santos drew attention to the plight of *Cebus apella xanthosternos* and *C. a. robustus*. Through their efforts, and in collaboration with Adelmario Coimbra-Filho and Alcides Pissinnati of the Rio de Janeiro Primate Center, and Jean-Marc Lernould of Mulhouse Zoo, France, *C. xanthosternos* now has a captive breeding program, and an International Committee for the management of both subspecies was created by Ibama in 1992, of which Ilmar Santos is Co-Chairman (see below). He is also a member of the International Committee for the golden-headed lion tamarin, *Leontopithecus chrysomelas*. His research has provided important contributions to our knowledge of the status and distribution of this animal, and he played a key role in the purchase of additional forests for the consolidation of the Una Biological Reserve. More recently, Ilmar has carried out pioneer work on the three-banded armadillo, *Tolypeutes tricinctus*, in the *caatinga* of inland Bahia. His research on the ecology, distribution and status of this endangered species was financed by Conservation International and World Wildlife Fund-US, and is the subject of his research thesis for a Master's degree at UFMG to be completed this year. In 1988, Ilmar formed part of the team which created the Fundação Biodiversitas, Belo Horizonte, already today a leading Brazilian non-governmental organization for the conservation of Brazilian primates and other wildlife. Formerly head of the Science Department, Ilmar is now Director of the Foundation. The Florida Audubon Society Award was presented to Ilmar Santos by Dr Peter Pritchard, world expert on turtles and Vice-President of the Society, at a special ceremony on the 13th April in Belo Horizonte. It is reserved for young Latin American conservationists who have shown great promise, evidenced by remarkable achievements, in their early careers. We congratulate the Society for their recognition of Ilmar's highly significant contribution to our knowledge of Brazilian mammals and their conservation.

1ST MEETING OF THE INTERNATIONAL COMMITTEE FOR *CEBUS APPELLA XANTHOSTERNO* AND *CEBUS APPELLA ROBUSTUS*

The International Recovery and Management Committee for the yellow-breasted capuchin (*C. xanthosternos*) and the robust tufted capuchin (*C. a. robustus*), was created by the Brazilian Institute for the Environment and Natural Renewable Resources (Itama) on the 16 October 1992, Edict Nº 111 (see Neotropical Primates, 1, No 1). The meeting was attended by the Brazilian representative, Belo Horizonte, of the Brazilian Institute for the Environment and Natural Renewable Resources (Itama), and representatives of the following institutions: Conservation International (CPI/IC), the Conservation Association, the World Wildlife Fund, the German School of Brazil, the Brazilian Association of Zoologists, the Brazilian Association of Zoologists, and the Brazilian Association of Zoologists. The meeting was attended by representatives of the following institutions: Conservation International (CPI/IC), the Conservation Association, the World Wildlife Fund, the German School of Brazil, the Brazilian Association of Zoologists, the Brazilian Association of Zoologists, and the Brazilian Association of Zoologists.
The Co-Chairmen, Ilmar Santos (Fundação Biodiversitas) and Jean-Marc Lernould (Mulhouse Zoo), called the first meeting of the Committee in Belo Horizonte on the 14th April 1993, which was attended by the following members: Adelmar Coimbra-Filho (Centro de Primatologia do Rio de Janeiro - CPRJ/FEEMA), Alcides Pissinatti (CPRJ/FEEMA), Russell A. Mittermeier (Conservation International, Washington, D.C.), Maria Jolita Bampi (Ibama), and Fernando Dafa'Ava (Ibama). Luiz Paulo de Souza Pinto and Anthony Rylands, both of the Federal University of Minas Gerais, were invited to attend as technical consultants. Rosemary de Carvalho (Ibama) secretaried the meeting, the first part of which was dedicated to the elaboration of the committee regulations, as well as the Management Agreement and Terms of Responsibility for the institutions involved in the captive breeding program already established for *C.a.xanthonsternos* (based on those for the similar committees for the lion tamarins).

At present the breeding program includes the Rio de Janeiro Primate Center (CPRJ/FEEMA) with 20 animals, and the Mulhouse Zoo, France, with five. Two individuals are also being held at the Rio de Janeiro Zoo (on loan from CPRJ). The program will be extended to include Chester Zoo, England, and Zurich Zoo, Switzerland, based on the availability of 16 animals at CPRJ, to reduce their stock to four and enable the recovery of further animals being kept as pets in southern Bahia.

Anthony Rylands presented a summary of the available data on the distribution of *C.a.xanthonsternos*, and Luiz Paulo de Souza Pinto of his findings concerning its distribution and status in southern Bahia. A plan of action for *C.a.xanthonsternos* was then discussed with the following priorities: Captive program. The establishment of an international program in Brazil and Europe, involving in the initial stages the institutions mentioned above. Alcides Pissinatti was elected studbook keeper. Wild populations. The establishment of a research program on *C.a.xanthonsternos*, focusing on aspects of its conservation biology (population densities, habitat preference, ecology and behavior), along with an educational campaign aimed at local landowners, and linked with the successful program of Maria Cristina Alves (Fundação Pau Brasil, Itabuna), already underway for the golden-headed lion tamarin (*Leontopithecus chrysomelas*). It was decided that a proposal (action plan) should be drawn up and submitted to the New World Primate Taxon Advisory Group (TAG) of the American Association of Zoological Parks and Aquariums (AAZPA) (chaired by Anne Baker, Burnet Park Zoo, Syracuse), as a first step to obtain financing. *C.a.xanthonsternos* is already on the Brazilian Official List of Fauna Threatened with Extinction (Edict N° 1522/19 December 1989), and Anthony Rylands informed that the SSC Primate Specialist Group was considering a proposal for the inclusion of this subspecies, as well as *C.a.robustus*, on the IUCN List of Threatened Animals currently under revision (see p.1). A proposal will also be submitted for the inclusion of *C.a.robustus* on the Brazilian List. Finally, Anthony Rylands and Roland Wirth (Zoological Society for the Conservation of Species and Populations, Munich) were elected as full members of the Committee.

Ilmar B. Santos, Fundação Biodiversitas, Rua Maria Vaz de Melo 71, Dona Clara, Belo Horizonte 31260-110, Minas Gerais, Brazil. Jean Marc-Lernould, Parc Zoologique et Botanique, Ville de Mulhouse, B.P.3089, 6806 Mulhouse, France.

**A Symposium on Lion Tamarin Conservation and Ecology**

A one-day symposium on the ecology and conservation of the four lion tamarin species, organized by Devra Kleiman and Inês Castro (Golden Lion Tamarin Conservation Program of the National Zoological Park, Washington, D.C.), was held on the 18th May 1993 at the Education Center of the Poço das Antas Biological Reserve, Rio de Janeiro. The symposium consisted of a remarkable and successful marathon of 28 talks, each of 10 minutes, in the presence of a significant sample of the people currently involved in conservation and research of lion tamarins.

Ibsen de Gusmão Câmera began the symposium by presenting a review of the principal threats to the survival of the black-headed lion tamarin (*Leontopithecus caissara*). New information on the geographic distribution and wild status was presented for *L.rosalia* (golden lion tamarins - GLT) in Rio de Janeiro (Cecília Kierulf, Ricardo J.L.Medeiros), *L.chrysomelas* (golden-headed lion tamarins - GLHT) in southern Bahia (Luiz Paulo de Souza Pinto), *L.chrysopygus* (black lion tamarins - BLT) in São Paulo (Cláudio Pádua, Laury Cullen, Ana Carolina Mamede), and the
overview of the current research projects of the Golden Lion Tamarin Conservation Program (National Zoological Park, Washington D.C.), including those mentioned above, the reintroduction program, and research on communication and locomotion. The last session reviewed the situation of and prospects for, the captive populations of GLTs (Jon Ballou, International Studbook keeper), and GHLTs (Jeremy Mallinson, International Studbook keeper and Helga de Bois, responsible for the European populations of lion tamarins), and last of all Alcides Pissinati reviewed veterinary aspects, particularly concerning the diagnosis of causes of mortality.

The following two days were dedicated to meetings of the International Committees for the four lion tamarin species. These committees were established by the Brazilian Institute for the Environment and Renewable Natural Resources (Ibama) to discuss and advise on issues concerning the management of captive and wild populations, as well as research projects and any issues which directly or indirectly affect their conservation status. The working document which provides the directions and guidelines for these committees was produced during the Population Viability Workshop on Leontopithecus, held in Belo Horizonte in June 1990, and sponsored by the Jersey Wildlife Preservation Trust, World Wildlife Fund-US, Ibama, Fundação Biodiversitas and Conservation International. It was published by the SSC/Captive Breeding Specialist Group, chaired by Ulyses S. Seal (Seal et al., 1990). The report includes specific proposals for future action concerning conservation measures for the lion tamarin species. These were reasonably complete for GLTs, GHLTs, and BLTs, but lacking sufficient data for BHLTs, which had only very recently been discovered. As a result, one of the main themes for this, the first, meeting for BHLTs was the elaboration of an action plan based on the considerable amount of data now available concerning their distribution and status in the wild. For the other species, the action plans were reviewed in terms of the progress which had been achieved since the Workshop, and the conclusion that the large majority of the recommendations had been addressed, and that quite a number had even been resolved, was the cause of some satisfaction amongst the committee members.

Credit must be given not only to Ibama for the initiative, but also to the Committee chairs: GHLT

References


CENSO E DISTRIBUCION DEL MARIMONO, ATELES PANISCUS, EN LA ESTACION BIOLOGICA BENI, BOLIVIA

Durante el presente año con el apoyo económico de UNESCO, París, en la Reserva de la Biosfera "Estación Biológica Beni", Provincias Ballivián y Yacuma, Departamento Beni, Bolivia (66°18'30"W, 14°38'00"S), se desarrollará el proyecto "Censo y distribución de la población del marimon (Ateles paniscus)". En Bolivia A.p.chamek ha sido poco estudiado y no ha recibido atención en ningún proyecto específico, contándose con datos de su abundancia, distribución y su estado de conservación como fruto de evaluaciones generales sobre la fauna primatológica. Estos monos son usados como comida (carnes y obtención de aceite) y como mascotas por gente local. La caza las ha afectado en particular; se indica que para la zona de Cobija y probablemente para toda la región de Pando la presencia de A.paniscus es rara, porque aparentemente ha sido cazado hasta extinguirse en grandes regiones. Finalmente la destrucción del hábitat constituye también un factor importante, sufriendo las superficies boscosas una deforestación constante a causa de asentamientos humanos mal dirigidos hacia las regiones tropicales. Desde el punto de vista de la conservación en Bolivia, A.paniscus está considerada como una especie amenazada, categoría bajo la cual incluyen las especies cuyas poblaciones experimentan disminución por explotación intensiva o destrucción del hábitat.

El presente estudio está enmarcado dentro de las acciones prioritarias de estudios biológicos intensivos para especies en peligro de extinción y de interés económico, entre las que está especialmente considerada A.paniscus, a fin de formar las bases técnicas y científicas para el manejo de recursos. El estudio tiene los siguientes objetivos: 1) establecer el status (distribución y abundancia) de A.paniscus en la Estación Biológica Beni; 2) conocer la composición y tamaño de los grupos, relacionadas con diferencias estacionales, y 3) conocer aspectos de su comportamiento y uso vertical del espacio.

Teresa Tarifa Suarez, Curador, Sección Mamíferos, Colección Boliviana de Fauna, Convenio Instituto de Ecología-Museo Nacional de Historia Natural, Casilla 8706, Calle 26 Cota
study of a group of 6-9 individuals in a small fenced enclosure of 20 ha of secondary forest in the grounds of the Tropical Hotel, Manaus. The study was financed by INPA and the Brazilian Science Council (CNPq), and presented as a master's thesis, supervised by Dr Cory C.T. Carvalho, to the State University of Campinas (UNICAMP), São Paulo (Egler, 1986). Part of the study, concerning feeding ecology, was recently published in volume 59 (1992) of *Folia Primatologica*. Egler (1992) listed 21 plant species of 12 families used for food resources (fruits, flowers and exudates), and described their characteristics and seasonality in consumption. She also examined aspects of ranging behaviour, habitat use (range size was 12 ha), and activity cycles. At the end of the article Egler discussed the conservation status of the pied tamarin. *S. bicolor* occurs in four protected areas: the Adolfo Ducke Reserve of INPA (10,000 ha); the Alberto Egler Reserve of INPA (630 ha); the Ecological Reserve of Saimiri-Castanhedros (109 ha); and a small private reserve of the Tropical Hotel. Egler referred to the problems of small genetically isolated populations, and the precarious situation of groups scattered through the suburbs and surrounding areas of Manaus. Part of her study area, originally occupied by three groups, was destroyed by the hotel owners in 1985, and in 1986 she was able to observe only two individuals remaining there. The forests around Manaus are being destroyed with the expansion of its urban limits, as well as for agriculture and cattle-ranching, and the pied tamarin, although not hunted, is undoubtedly declining in numbers. Ayres *et al.* (1980, 1982), Egler (1983) and Coimbra-Filho (1987) have also reviewed its distribution and conservation status.

Silvia Egler is continuing her studies on the pied tamarin for a doctoral thesis, also from the State University of Campinas, under the supervision of Marc G.M. van Roosmalen (Department of Botany, INPA). In this study she is examining the ecological segregation of the midas tamarin, *Saguinus midas midas* and *S.b. bicolor*, through vegetation analyses and a detailed delimitation of the geographic distribution of the two species in the vicinity of Manaus. Her findings have already indicated that the range of *S.b. bicolor* is even smaller than indicated by previous studies (Ayres *et al.*, 1980, 1982), with the Rio Cuieras being the western limit and Km 30 of the BR-174 highway one of the northern limits. The research is being financed by the National Institute for Amazon Research (INPA), the Brazilian Science Council (CNPq), C. T. Carvalho, Brasilia, D.C., and New York.

Silvia G. Egler, Instituto Nacional de Pesquisas da Amazônia (INPA), Caixa Postal 2801, 69011-970, Manaus, Amazonas, Brazil.

**References:**


**FIRST FIELD STUDY OF THE PIED TAMARIN, SAGUINUS BICOLOR BICOLOR**

The pied tamarin is probably the most endangered of the Amazonian callitrichids, having a very restricted range centred on Manaus, the capital of the state of Amazonas. From May 1983 to April 1984, Silvia Egler of the Instituto Nacional de Pesquisas da Amazônia (INPA), carried out a field study of a group of 6-9 individuals in a small fenced enclosure of 20 ha of secondary forest in the grounds of the Tropical Hotel, Manaus. The study was financed by INPA and the Brazilian Science Council (CNPq), and presented as a master's thesis, supervised by Dr Cory C.T. Carvalho, to the State University of Campinas (UNICAMP), São Paulo (Egler, 1986). Part of the study, concerning feeding ecology, was recently published in volume 59 (1992) of *Folia Primatologica*. Egler (1992) listed 21 plant species of 12 families used for food resources (fruits, flowers and exudates), and described their characteristics and seasonality in consumption. She also examined aspects of ranging behaviour, habitat use (range size was 12 ha), and activity cycles. At the end of the article Egler discussed the conservation status of the pied tamarin. *S. bicolor* occurs in four protected areas: the Adolfo Ducke Reserve of INPA (10,000 ha); the Alberto Egler Reserve of INPA (630 ha); the Ecological Reserve of Saimiri-Castanhedros (109 ha); and a small private reserve of the Tropical Hotel. Egler referred to the problems of small genetically isolated populations, and the precarious situation of groups scattered through the suburbs and surrounding areas of Manaus. Part of her study area, originally occupied by three groups, was destroyed by the hotel owners in 1985, and in 1986 she was able to observe only two individuals remaining there. The forests around Manaus are being destroyed with the expansion of its urban limits, as well as for agriculture and cattle-ranching, and the pied tamarin, although not hunted, is undoubtedly declining in numbers. Ayres *et al.* (1980, 1982), Egler (1983) and Coimbra-Filho (1987) have also reviewed its distribution and conservation status.

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Silvia G. Egler, Instituto Nacional de Pesquisas da Amazônia (INPA), Caixa Postal 2801, 69011-970, Manaus, Amazonas, Brazil.

**References:**


Neotropical Primates 1(2), June 1993

Valleys in a small secondary forest in the Brazilian Amazon. The study was a master's thesis by Carvalho, to the Brazilian Science and Technology Council (CNPq), Conservation International, Washington, D.C., and Wildlife Conservation International, New York.

Silvia G. Egler, Departamento de Ecologia, Instituto Nacional de Pesquisas da Amazônia (INPA), Caixa Postal 478, Manaus 69083, Amazonas, Brazil.

References


Wisconsin Regional Primate Research Center - PRIMATE TALK

The Library of the Wisconsin Regional Primate Research Center of the University of Wisconsin at Madison has set up an electronic mail listserver called PRIMATE-TALK: an open forum for discussion in primatology and related subjects. Subjects include: news items, meetings announcements, research issues, information requests, veterinary/husbandry topics, job notices, animal exchange information, and book reviews. People with Internet, BITNET, or UUCP addresses can communicate with PRIMATE-TALK. Users of other networks should contact the address given below. If you are interested in joining PRIMATE-TALK send a message to PRIMATE-TALK-REQUEST@PRIMATE.WISC.EDU stating that you would like to sign on. Messages to the list can be sent to PRIMATE-TALK@PRIMATE.WISC.EDU. If you have any questions concerning electronic access to the list, you can call Larry Jacobsen, Head of Library Services, Regional Primate Research Center (WRPRC) Library, 1220 Capitol Court, Madison, Wisconsin 53715-1299, USA. Tel: (608) 263-5312, Fax: (608) 263-4031.

LINCOLN PARK ZOO SCOTT NEOTROPIC FUND

The Lincoln Park Zoo Scott Neotropic Fund is sponsored by the Lincoln Park Zoological Society and the Chicago Park District. It provides support for conservation projects throughout Latin America, although preference is given to new projects with 1) links to either the Lincoln Park Zoo animal collection or members of the zoo staff, 2) direct participation by graduate and/or undergraduate students, and 3) support designated for students and/or field assistants from Latin America. Projects should generate information that contributes to the conservation of Latin American Wildlife. Awards are seldom greater than US$1,750, and most are of the order of US$1,000-$7,000. The fund does not generally support salaries and the purchase of permanent equipment. For further information about the fund, as well as the zoo's animal collection, write to Dr. Steven D. Thompson, Director of Conservation and Science, Lincoln Park Zoological Gardens, 2200 North Cannon Drive, Chicago, Illinois 60614, USA. The deadline for receipt of proposals is 1 September 1993.

Research Fellowships from NYZS The Wildlife Conservation Society

Wildlife Conservation International (WCI) and its parent organization the New York Zoological Society have recently adopted the new name of
NYZS The Wildlife Conservation Society. The Society has a fellowship program which gives support to projects that specifically address the conservation needs of wildlife in endangered ecosystems. The projects must be directed towards activities that will help achieve concrete progress in the conservation of wild areas and their species.

The program does not provide funds for conference participation, air tickets, scientific meetings, university fees, legal actions, construction of permanent field stations, salaries, nor general administration costs. Very expensive laboratory analyses are not considered either. Certain proposals for research in Central America may be eligible to compete for exclusive funding from the United States Agency for International Development's Regional Office for Central American Programs (ROCAP).

For more information write to: Dr Mary Pearl, NYZS The Wildlife Conservation Society, International Programs, 185th Street and Southern Boulevard, Bronx, New York 10460-1099, USA. Tel: (718) 220-5155, Fax: (718) 364-4275, or Ing. Claudio Saito, NGO Advisor, Regional Office for Central American Programs, 2a. Avenida 9-01, Zona 10, Guatemala, Guatemala 01010. Tel: 502-2-313515, 502-2-318973, Fax: 502-2-320495.

A LIST OF GRANT SOURCES FOR RESEARCH ON MAMMALS

A listing of agencies and foundations that grant funding for research on mammals was announced in the Journal of Mammalogy (1992, 73(1):242) of the American Society of Mammalogists. The list comprises a variety of sources for established researchers as well as students and recent graduates. To obtain a copy, send an IBM-compatible, formatted disk (3.5 in. or 5.25 in.), as well as a self-addressed, stamped envelope to: Nancy D. Moncreif, ASM Education and Graduate Students Committee, Virginia Museum of Natural History, 1001 Douglas Avenue, Martinsville, VA 24112, USA.

WWF APÓIA TESES EM BIOLOGIA DA CONSERVAÇÃO

O Fundo Mundial para a Natureza (WWF) está recebendo planos de teses de pos-graduação (mestrado e doutorado) com enfoque em Biologia da Conservação, para apoio financeiro. Este apoio inclui viagens ao campo, aquisição de pequenos itens de equipamento e despesas em geral que viabilizam a execução do plano de trabalho. Não é uma bolsa de manutenção pessoal. O valor pode variar de US$ 3,000 a US$ 8,000 por tese, para o período necessário ao trabalho de campo. Propostas só serão consideradas se indicarem resultados práticos para aplicação em conservação da natureza.


Serão consideradas também propostas que possam contribuir para mapear áreas importantes em biodiversidade no cerrado, e na Amazônia como regiões prioritárias para serem protegidas, e estudos de dinâmica de fragmentos na mata Atlântica. Outro tema que também é o tamanho e forma de áreas a serem protegidas. Será finalmente considerada a capacidade institucional da universidade onde o aluno de pos-graduação está matriculado, principalmente quanto à orientação acadêmico-científica e da estrutura mínima para concluir o trabalho.

Prazos: Recebimento da proposta - 1) entre 01 de julho e 30 de setembro para julgamento até 31 de outubro; 2) entre 01 de outubro e 31 de dezembro para julgamento até 31 de janeiro; 3) entre 01 de janeiro e 31 de março para julgamento até 30 de abril; 4) entre 01 de abril e 30 de junho para julgamento até 31 de julho.

Para maiores informações: Dr Cleber J.R. Alho, WWF-Fundo Mundial para a Natureza; SHIS EQ QL 06/08, Conjunto E, 2º andar, Brasilia - DF 76120-430, Tel: (061) 248-2899, Fax: (061) 248-7176.
EDENTATE SPECIALIST GROUP
NEWSLETTER - APPEAL FOR CONTRIBUTIONS

The Chairman of the SSC Edentate Specialist Group, Gustavo A.B. da Fonseca, Federal University of Minas Gerais and Brazil Program Director of Conservation International, will be editing a newsletter, in collaboration with Ilmar B. Santos, Director of the Fundação Biodiversitas, Belo Horizonte, Minas Gerais, Brazil. The newsletter will report on current projects concerning the status, distributions, behaviour, ecology and captive breeding of armadillos, anteaters and sloths, as well as palaeontological research on the Quaternary and Tertiary xenarthrans, along with the activities of the Group, and of IUCN and SSC in general. Please send all those involved in research or captive breeding of these animals, and especially the Edentate Specialist Group members, consider this Newsletter as a forum for the exchange of ideas and opinions and to report on projects, research groups, events, recent publications, activities of NGOs etc. Please send texts either in the form of manuscripts (double-spaced) or in diskettes for PC compatible text-editors (MS-Word, Wordperfect, Wordstar) to: Gustavo A.B. da Fonseca, Departamento de Zoologia, Instituto de Ciências Biológicas, Universidade Federal de Minas Gerais, 31270-901 Belo Horizonte, Brazil, Fax: (031) 441-1412, or c/o Conservation International, Rua Bueno Brandão 393, Belo Horizonte 31010-060, Minas Gerais, Brazil, Fax: (031) 222-8429, or Ilmar B. Santos, Fundação Biodiversitas, Caixa Postal 2462, Rua Maria Vaz de Melo 71, Dona Clara, 31250 Belo Horizonte, Minas Gerais, Brazil, Fax: (031) 441-7037.

INTERNATIONAL EXCHANGE PROGRAM
FOR FISH AND WILDLIFE MANAGERS

An International Exchange Program for Fish and Wildlife Managers was established in 1990 at the Massachusetts Cooperative Fish and Wildlife Research Unit for the purposes of providing fish and wildlife professionals and educators from Latin America with practical management-oriented training. Participants are given opportunities to develop new knowledge and technical skills by working in the field, laboratory, and academic setting with biologists and managers. In addition, the Exchange Program is intended to increase awareness of shared fish and wildlife concerns in the western hemisphere among students, staff and cooperators affiliated with the Unit. The program includes only established professionals, and is funded by the Office of International Affairs, U.S. Fish and Wildlife Service, and the Unit.

The cooperators for the 1992 program were as follows: United States - U.S.Fish and Wildlife Service (Massachusetts Cooperative Fish and Wildlife Research Unit, Office of International Affairs, Northeast Regional Office), University of Massachusetts, Massachusetts Division of Fisheries and Wildlife, and the Hitchcock Center for the Environment, Inc.; Latin America - Universidad Nacional de Costa Rica (Programa Regional de Vida Silvestre para Mesoamerica y el Caribe), Universidade Federal de Minas Gerais (Departamento de Zoologia), Brazil, and the Universidad Nacional Experimental de los Llanos Occidentales (Secretaria Ejecutivo de Postgrado), Venezuela. The three Latin American wildlife biologists who participated in the 1992 program were: Magaly M.Ojeda C., a wildlife ecologist working with PROFANA, an agency of the Environmental and Natural Resources Ministry of Venezuela (MARNR), President of the Venezuelan Association for the Study of Mammals, and currently developing a new graduate program in Aquatic and Wildlife Management and Conservation at the Universidad Simon Bolivar; Claudia M.R.Costa, who is working at the Conservation Data Center of the Fundação Biodiversitas, Belo Horizonte, Brazil, specifically on the development of computerized mapping programs (Geographic Information Systems - GIS) for setting priorities for land use and conservation; and Eduardo Carrillo J., an Associate Professor in the Regional Wildlife Management Program for Central America and the Caribbean, Universidad Nacional, Heredia, Costa Rica.

Two new cooperators joined the Program in 1993: Enrique H.Bucher, Centro de Zoología Aplicada, Cassilla del Correo 122, 5000 Cordoba, Argentina; and Magaly M.Ojeda C., Aquatic and Wildlife Management and Conservation, Universidad Simon Bolivar, Caracas, Venezuela. Both cooperators are establishing master's programs in wildlife management. The exchanges for 1993 will take place in the early Autumn, with the selection date being August 1.

For further information: Dr Rebecca Field,
Primate Societies

Sociedade Brasileira de Primatologia


No seu Boletim de fevereiro de 1993, o SBPr informou que o livro A Primatologia no Brasil-4, os anais do V Congresso da SBPr em Salvador, Bahia, já está pronto e, de acordo com as editoras Maria Emilia Yamamoto e Maria Bernadete de Sousa (Núcleo de Primatologia da Universidade Federal do Rio Grande do Norte, Natal) deverá ser publicado nos próximos meses.

Recent Publications

Protected Areas of the World: A Review of National Systems. Volume 4: Nearctic and Neotropical, 1992, compiled by the World Conservation Monitoring Centre and IUCN, in cooperation with British Petroleum, c.400pp., maps. Price US$50.00. Part of a four volume world-wide survey, organized into national accounts, each comprising a description of the national protected areas system, accompanied by a summary list and map of protected areas. The remaining volumes deal with the Indomalaya, Oceania, Australia and Antarctica (Volume 1); Palearctic (Volume 2); and Afrotropical (Volume 3). Available from: IUCN Publications Services Unit, 181a Huntingdon Road, Cambridge CB3 0DJ, UK, Tel: (0223) 277894, Fax: (0223) 277175, or Island Press, Box 7, Covelo, California 95428, USA, Tel: (800) 828-1302 (toll free in the US), (707) 983-6432 (outside the US), Fax: (707) 983-6414.


Primates of the Americas: Strategies for Conservation and Sustained Use in Biomedical Research, 1993, edited by Primo V.Armulbo III, Filomeno Encarnación, Jaime Estupiñán, Hugo Samamé, Charles R.Watson, and Richard E.Weller, 336pp., Battelle Press, Columbus, Ohio. Price US$34.95 + shipping (USA - $3.50 first book; 75c each additional copy; outside USA - $3.50 surface; $8.50 air). All chapters in Spanish and English. Proceedings of the First Ordinary Meeting of the Regional Primatology Committee for the Americas (Comité Regional de Primatología para las Américas - CORP-I), convened by the Director of the Pan American Health Organization from October 29th to 31st, 1990. Over 50 government representatives and scientists from 15 countries met in the Batelle Conference Center, Seattle, Washington, USA, to discuss the status of Neotropical primates and formulate plans for their preservation. Includes a full report of the meeting, and 17 chapters including: a review of Neotropical primate conservation (R.A.Mittermeier et al.); the status of natural populations and benefits of sustained cropping (L.Moya et al.); environmental factors affecting reproduction in special habitats (T.Wolffe); nonhuman primate conservation and public health (R.A.Watson Jr.); PAHO/WHO technical cooperation in the conservation and use of nonhuman primates in the Americas.
Neotropical Primates 1(2), June 1993

(P.Arámbulo III and A.Ruiz); integrated development of conservation units and the role of national primatology programs (J.V.Rodriguez); international collaboration for the development of primatology programs (M.U.Castillo); wildlife management in Brazil (J.Wallauer P.); managing nonhuman primates as renewable resources (T.Panayotou and P.Arámbulo III); mobilization of resources for conservation of Neotropical ecosystems and debt-for-nature swaps (E.Liebow); community participation in the Protection of the Natural Habitat of the Neotropical and Natural Resource Policy in Bolivia (H.Zaballos H.); and a proposal for a regional action plan in primatology for the Americas (F.Encarnación and H.Samamé). It also includes the proposed constitution and regulations of CORP. Available from: Batelle Press, 505 King Avenue, Columbus, Ohio 43201-2693, USA.


Field Studies of New World Monkeys La Macarena Colombia, Vol.7, 1992, Monbusho International Scientific Research Program (No.02041009) Reports, Japan Colombia Cooperative Study of Primates. 53pp. Includes the following articles: Nishimura, A., Wilches A.V. and Estrada, C. Mating behaviors of woolly monkeys, Lophotrix logotricha, at La Macarena, Colombia (III): reproductive parameters viewed from a longterm study; Izawa, K. Social changes within a group of wild black-capped capuchins (Cebus apella).III; Izawa, K. and H.Lozano M. Social changes within a group of red howler monkeys (Alouatta seniculus). IV; Koshin, K. Demographic approach to the social group of wild red howler monkeys (Alouatta seniculus); Kobayashi, M. and Izawa, K. Early stage of rhizome development in Pharus virens (Poaceae: Bambusoideae) located in La Macarena, Colombia; Yoshihiko, H. and Barbosa, C. Architecture of the hill-crest type forest in the upper Colombian Amazon. Contact: Kosei Izawa, Miyagi University of Education, Aoba, Sendai, 980 Japan.


Primate Social Conflict, edited by William A.Mason and Sally P.Mendoza, State University of New York Press, New York, 1993, 419pp. Pbk US$19.95 + US$3.00 postage. This book examines conflict as a normal and recurrent feature of primate social life, important in the basic processes contributing to social order. The authors go beyond the usual view which tends to equate social conflict with fights over food or mates or for social supremacy, and analyse the diverse manifestations and significance of conflict in a number of case studies. Available from: State University of New York Press, c/o CUP Services, P.O.Box 6525, Ithaca, NY 14851, USA.


Manejo de Áreas Protegidas Fronterizas en América Latina, Documento Técnico No.10, Proyecto FAO/PNUMA sobre Manejo de Áreas Silvestres, Áreas Protegidas y Vida Silvestre en América Latina y el Caribe. Red Latinoamericana de Cooperación Técnica en Parques Nacionales, otras Áreas Protegidas, Flora y Fauna Silvestres. Oficina Regional de la FAO para América Latina y el Caribe. B. Marchetti, J. Oltremari y H. Peters, 1992, 120pp. El documento comprende un diagnóstico, el que está referido a los recursos naturales y sistemas de clasificación de las áreas silvestres protegidas fronterizas, asentamientos humanos y actividades productivas, actividades turísticas, investigación, educación ambiental, capacitación, planificación y aspectos legales. También se incluyen los siete estudios de casos que fueron presentados por los participantes al Taller Internacional sobre Manejo de Áreas Silvestres Protegidas Fronterizas, que organizó la Oficina Regional de la FAO en Panamá. Dichos casos involucraron a 12 áreas protegidas y a 10 países, según el detalle que se indica: Parque Nacional Trifinio (El Salvador, Guatemala, Honduras); Parque Nacional La Amistad (Costa Rica, Panamá); Parque Nacional Los Katios, Darién (Colombia, Panamá); Parque Nacional del Pico de Neblina, La Neblina (Brasil, Venezuela), Parque Nacional El Tama (Colombia, Venezuela); Parque Nacional del Iguazú, Iguazu (Brasil, Argentina); y Parque Nacional Nahuel Huapi, Vicente Pérez Rosales-Puyehue (Argentina, Chile). Available from: Kyran D. Thelen, Oficial Regional Forestal, Oficina Regional de la FAO para América y el Caribe, Avda. Santa María 6700, Casilla 10095, Santiago, Chile. Tel: (562) 218 53 23, Fax: (562) 218 25 47.


Catálogo y resúmenes de literatura no publicada sobre Conservación y Manejo de Vida Silvestre en América Latina, Centro de Documentación BIODOC, Programa Regional en Manejo de Vida Silvestre (PRMVS), Universidad Nacional, Heredia, Costa Rica, 234pp. El PRMVS divulga los resultados tanto de sus investigadores como de otros colegas en Latinoamérica a través de su Centro de Documentación en Vida Silvestre (BIODOC), el cual fue inaugurado en febrero de 1988. El catálogo incluye material bibliográfico no publicado o cuyo tiraje ha sido muy reducido, tal como el caso de tesis, reportes, proyectos y investigaciones. Contiene dos índices que facilitan mucho la búsqueda de información. Uno de ellos es de especies y materias compuesto por 727 palabras claves; de ellas, 136 se refieren a especies de fauna.
de fauna. El otro índice es de países, comprendiendo 35 referencias relativas a países de los cinco continentes. En total, el catálogo comprende 600 títulos, parte importante de los cuales incluye un resumen del trabajo, que como ya se indicó, son de diversa índole. Para más información: Dr. Victor Cartín Leiva, Director, Programa Regional de Vida Silvestre para Mesoamérica y el Caribe, Universidad Nacional, Campus Omar Dengo, Apartado 1350, 3000 Heredia, Costa Rica, Tel: 37-7039, Fax: 37-7036.


Some Recent Studbooks


Meetings

1993

16TH MEETING OF THE AMERICAN SOCIETY OF PRIMATOLOGISTS, 18-22 August 1993, New England Regional Primate Research Center, Sturbridge, Massachusetts. Contact: Andrew J. Petto, New England Regional Primate Research Center, Division of Behavioural Biology, P.O.Box 9102, Southborough, Massachusetts 01772-9102, USA.

III SIMPOSIO INTERNACIONAL DE TURISMO, ECOLOGIA Y MUNICIPIO, 30 de agosto a 4 de septiembre de 1993, Mazatlan, Mexico. Objetivo: Ofrecer a los participantes un foro internacional con expertos del mas alto nivel, orientado al conocimiento, actualizacion e intercambio de ideas acerca de los desafios del desarrollo del turismo, reconociendo como eje fundamentales las caracteristicas, limitaciones y el potencial del medio ambiente natural y la labor trascendental de los municipios en coordinacion con los empresarios. Informaciones: Centro de Estudios Superiores en Turismo, Schiller 138, 7o. Piso, Col.Chapultepec Morales, C.P.11597, Mexico, D.F. Tel: 250 79 34 y 545 44 74, Fax: 250 79 34.

XXIII INTERNATIONAL ETHEOLOGICAL CONFERENCE, 1-9 September 1993, Torremolinos, Spain. Contact: Secretaria de Congressos Cordoba, C/Cano 3, 1-1, 14001 Cordoba, Spain. Tel:(9)57-480478, Fax:(9)57-479651, or Ana Omedes, General Secretary, Apartado 98033, Barcelona 08080, Spain.

CAPTIVE BREEDING SPECIALIST GROUP - ANNUAL MEETING 1993, 2-4 September 1993, Antwerp Zoo, Antwerp, Belgium. Contact: Ulysses S.Seal, Chairman SSC/CBSG, 12101 Johnny Cake Ridge Road, Apple Valley, MN 55124, USA.


FIRST INTERNATIONAL SYMPOSIUM ON CHEMISTRY OF THE AMAZON, 19-23 September 1993, Convention Center, Manaus Tropical Hotel, Amazonas, Brazil. Supported by the Associação Brasileira de Química, American Chemical Society, Centro de Tecnologia Mineral (CETEM), and the Instituto Nacional de Pesquisas da Amazônia (INPA). Principal themes: geochemistry, hydrochemistry, environmental chemistry, and chemistry of natural products. Contact: Associação Brasileira de Química, Rua Alcindo Guanabara 24, 160. Andar, 20031-130 Rio de Janeiro, Brazil. Tel: 55 21 262-1837, Fax: 55 21 262-6044.

V CONGRESSO NORDESTINO DE ECOLOGIA, 8-12 October 1993, Federal University of Río Grande do Norte, Natal, Brazil. Includes workshops and roundtables on such themes as: Evaluation of Rio 92, the Earth Summit; the Northeastern section of the Atlantic Forest Biosphere Reserve; and Technological Alternatives for the Semi-arid Ecosystems of the Northeast. Contact: Ricardo Braga, President, Sociedade Nordestina de
Evoluão do turismo, em relação aos potenciais da economia e do meio ambiente. Informações disponíveis para os contribuidores.


INTERNATIONAL CIRCULAR OF ZOOLOGICAL GARDENS - Antwerp Zoo. Contact: Dr. Susan Herring, Chair, ICVM Zoological Committee, Department of Orthodontics, University of Washington, Seattle, WA 98195, USA; Tel: (206) 543-3203, Fax: (206) 685-8163.

XVTH CONGRESS OF THE INTERNATIONAL PRIMATOLOGICAL SOCIETY, 3-8 August 1994, Bali, Indonesia. Organizers: Directorate General of Forest Protection and Nature Conservation (PHPA), the Indonesian Wildlife Society (IWS) and the International Primatological Society (IPS). Contact: Secretariat, 15th IPS Congress, PT, Bayu Buana Travel Service Lyd., Wisma Bank Dharmala 19th Fl, Jend Sudirman Kav. 28, Jakarta 12910, Indonesia, or Dr Linda Prasetyo, c/o Perth Zoo, 20 Labouchere Road, Western Australia 6151, Australia, Tel: 09 368-1916, Fax: 09 367-3921, or Dr Soegardjito, WWF/US Asia-Pacific Program, 1250 Twenty-fourth Street, N.W., Washington, D.C. 20037, USA, Tel: (202) 861-8300, Fax: (202) 223-6971.

VI TH INTERNATIONAL BEHAVIOURAL ECOLOGY CONGRESS, 14-20 August 1994, University of Nottingham, England. Contact: ISBE Conference, Conference Office, The Business Information Centre, 309 Haydn Road, Nottingham NG3 1DC, UK.


Contributions

We would be most grateful if you could send us information on projects, research groups, events (congresses, symposia, and workshops), recent publications, activities of primatological societies and NGOs, news items or opinions of recent events and suchlike, either in the form of manuscripts (double-spaced) or in diskettes for PC compatible text-editors (MS-Word, Wordperfect, Wordstar). Articles, not exceeding six pages, can include small black-and-white photographs, figures, maps, tables and references, but please keep them to a minimum.

Please send contributions to the editors: Anthony Rylands, Departamento de Zoología, Instituto de Ciencias Biológicas, Universidad Federal de Minas Gerais, 31270-901 Belo Horizonte, Brazil; Fax: (031) 441-4142, or c/o Conservation International, Rua Bueno Brandão 393, Belo Horizonte 31010-060, Minas Gerais, Brazil; Fax: (031) 222-8429, or Ernesto Rodriguez Luna, Parque de La Flora y Fauna Silvestre Tropical, Universidad Veracruzana, Apartado Postal 566, Xalapa, Veracruz 91000, México, Fax: (281) 8-77-30.

Neotropical Primates is produced in collaboration with Conservation International, 1015 18th Street NW, Suite 1000, Washington DC 20036, USA, and Fundação Biodiversitas, Rua Maria Vaz de Melo 71, Dona Clar, Belo Horizonte 31260-110, Minas Gerais, Brazil.

Design and Composition - YURI L. R. LEITE AND RICARDO B. MACHADO, Biodiversity Conservation Data Center (CDCB), Fundação Biodiversitas.