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TAPIR CONSERVATION

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The Newsletter of the IUCN/SSC Tapir Specialist Group.

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TAPIR CONSERVATION

The Newsletter of the IUCN/SSC Tapir Specialist Group.

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The views in Tapir Conservation do not necessarily reflect those of the IUCN nor the entire IUCN/SSC Tapir Specialist Group (TSG).

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The objective of Tapir Conservation is to offer the members of the Tapir Specialist Group/IUCN/SSC and others concerned with the family Tapiridae, news, brief papers, opinions, and general information about this threatened mammalian genus. Anyone wishing to contribute to Tapir Conservation can send material to:

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Word from the Editor

Our Purpose as a Specialist Group

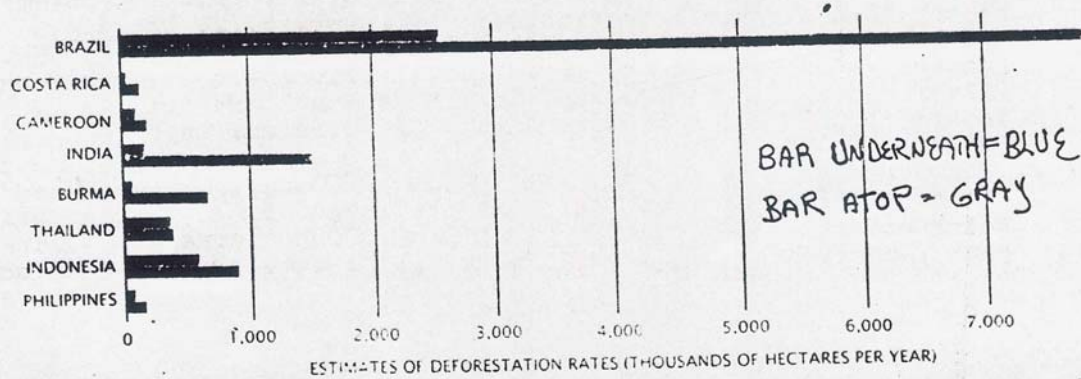
This newsletter represents the first real effort of the Tapir Specialist Group/IUCN/SSC to establish an effective international network of communication among its members. Our immediate goal is to strengthen communication within the TSG and then, unified, work toward achieving the measures that will promote conservation of the family Tapiridae.

This first issue provides several reports from the field including studies only recently underway, and others just at the proposal stage. In most cases, funds are still needed. Following these reports is a list of current members of the TSG and a bibliography of the Tapiridae compiled by Kay A. Kenyon, Rick Barongi, and M.L. Matthewson.

Tapirs are among the most primitive large mammals in the world, appearing during the Miocene Epoch, approximately fifty million years ago. All four species, Tapirus indicus, T. bairdii, T. pinchague, and T. terrestris, live in tropical regions of the world that are coming under increasing threat of habitat destruction. From field reports, it is clear that all four species suffer increasing population decreases due to the loss of their habitat.

Preservation of remaining tapir populations within their respective geographic ranges will depend on the establishment of large tracts of wild lands as parks and reserves.

And time is not on our side. In the April 1990 issue of Scientific American (Repetto), an article entitled, "Deforestation in the Tropics" states that destruction of tropical forests is a more serious problem than it was thought to be only a decade ago, judging by recent estimates based on remote sensing from satellites and on careful field surveys.



RATES OF DEFORESTATION appear to be increasing. Here estimates made by the Food and Agriculture Organization in the early 1980's (gray) are compared with more recent estimates (color) based on satellite imagery and field surveys.

As the last decade of the 20th century unfolds before us, we need to remember that this is the decade where conservation action must happen. The Tapir Specialist Group, hopefully, will be part of the conservation action corps that will activate strategies to ensure the preservation of species into the next century.

I need your help. Keep current scientific reprints and field reports coming to me. I will do my best to see that this important information is disseminated to all Group members. We need to begin thinking of developing an Action Plan. We need recommendations for areas that are in need of further field studies regarding all four species of tapir. And we need current data from the research field.

Thanks for your participation, suggestions, and comments. I look forward to hearing from TSG members far and wide.

NEWS FROM THE FIELD

Tapirus bairdii The Central American Tapir.
Report by Ignacio J. March.

From Mexico, ECOSFERA, Center of Studies for Conservation of Natural Resources, a project has been proposed entitled, "Preliminary Habitat Evaluation and Status of the Tapir, T. bairdii, in Southern Mexico". The main objective of this project is to obtain preliminary information on the current distribution and status of the species in Mexico. The former range of T. bairdii included the states of Veracruz, Oaxaca, Tabasco, Chiapas, Campeche, Yucatan, and Quintana Roo (Leopold, 1959, Alvarez del Toro, 1977, Hall, 1981). More recent reports indicate that the species still exists in the states of Oaxaca, Chiapas, Campeche, and Quintana Roo (Sanchez et al 1986; March, 1987; Vasquez, 1988).

Optimum habitat for the species in Mexico is considered to be the high evergreen tropical forest, however, T. bairdii has been reported in the tropical dry forests of Costa Rica (Janzen, 1988), the cloud forest of El Triunfo in Chiapas (Alvarez del Toro, 1977), and in the seasonal tropical forest of Calakmul, Campeche (Aranda pers. comm. to March 1987).

The tropical forests of Mexico are estimated to be undergoing deforestation at the rate of 160,000 hectares per year (Lanly, 1982). Given this rate, the rainforests in

Mexico could have only 71 more years of existence.

The proposed study, "Preliminary Habitat Evaluation and Status of the Tapir, T. bairdii, in southern Mexico, would provide information that can lead to specific recommendations focused towards the protection of this endangered species in Mexico.

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Tapirus indicus, The Malayan Tapir.

"The Status and Conservation of the Malayan Tapir, Tapirus indicus, in Sumatra, Indonesia". Charles Santiapillai and Widodo Sukohadi Ramono, WWF-3769 November 1989, Bogor, Indonesia.

In South-east Asia, the Malayan tapir occurs discontinuously from parts of southern Burma, south-western Thailand through the Malay Peninsula to Sumatra (Williams, 1980). Throughout its range, one of the most over-riding threats to its long-term survival is from a loss of forest habitat through permanent conversion to agricultural plantations. This is

nowhere more serious than in Sumatra where substantial areas of species-rich lowland forests are being converted to other forms of land-use: human settlement and establishment of agricultural plantations. Much of the present distribution of the tapir in Sumatra lies outside the areas set aside for wildlife conservation, such as national parks, nature reserves, and game reserves. Hunting is not a direct threat to the tapir in Sumatra as the predominantly Muslim populations considers it to be closely akin to a pig, and therefore abhor eating its flesh (Blouch, 1984). Its vulnerability comes only as a result of the rapid pace of habitat loss in Sumatra.

This study was undertaken in order to determine the distribution of T. indicus in Sumatra, to assist in the development of the measures aimed at its effective conservation.

T. indicus is a forest dweller, described as an inhabitant of only dense primary rainforests (Lekagul & McNeely 1977). A study in Thailand supported this observation, as T. indicus was observed to be living in primary forest only and not with forest fringes (Williams, 1980).

More recent studies show T. indicus inhabits disturbed forests, as well (Blouch, 1984). In some parts of Sumatra, signs of tapir have been plentiful in the vicinity of rubber plantations in logged forests. While the original habitat of the Malayan tapir might well have been dense tropical rainforest, it appears that the animal is remarkably adaptable, able to survive even in older logged forests in Sumatra. Tapir survival in logged forests may depend on their proximity to undisturbed primary forests, which may act as refuges. In Sumatra, the Malayan tapir occurs in a wide variety of habitats that include swamp forests, peat swamp forests, lowland forests, lower montane and hill forests.

Sumatra is losing forest fast. It is estimated that between 65 and 80 percent of the forests in the species-rich lowlands of Sumatra have already been lost (Whitten et al, 1984). The mountain areas to date have been less-seriously affected, but the disruption of continuous cover is already substantial in some cases, and perhaps 15 percent of their total area may tentatively be estimated as already removed from the meager data available (Santiapillai, 1989).

There is no conservation programme designed specifically to enhance the long-term survival of the Malayan tapir in Sumatra. It is hoped that the conservation strategies for key endangered species such as the Sumatran elephants, rhinos, and tigers will benefit other mammals including the Malayan tapir, which live sympatrically with these flag-ship species.

Table 1. Localities in Sumatra from where the Malayan Tapir has been recorded

Province	Locality (status)	Area (ha)	altitude (m)
ACEH	1 Gunung Leuser (NP)	10,000	0-3400
NORTH SUMATRA	2 Dolok Surungan (GR)	22,800	200-2180
	3 Padang Lawas (*HR)	68,700	80-167
	4 Sibolga (*GR)	20,100	200-1230
WEST SUMATRA	5 Batang Palupuh (NR)	3.4	800
	6 Gunung Kerinci (*NP)	226,835	500-3800
	7 Kam. Lubuk Niyur (PF)	100,000	500-2726
RIAU	8 Kerumutan Baru (NR)	120,000	0-20
	9 D.Bawah/P.Besar (NR)	25,000	0
	10 Seberida (*NR)	120,000	150-830
	11 Bukit Baling (*NR)	146,000	200-1090
	12 Peranap (*HR)	120,000	120-492
	13 Siak Kecil (*GR)	100,000	20
	14 Air Sawan (*GR)	140,000	100-176
JAMBI	15 Berbak (GR)	190,000	0-20
	16 Bukit Tapan (*NP)	66,500	1000-2576
	17 Batang Merangin Barat Memjuta Ulu (*GR)	64,600	1000-1931
	18 Teluk Kayu Putih #		100
	19 Pesisir Bukit #		1500
	20 Ladek Panjang @		1500
SOUTH SUMATRA	21 Isau-Isau Pasemah (GR)	12,114	500-1431
	22 Gunung Raya (GR)	39,500	300-2232
BENGKULU	23 Ipuh #		0-20
	24 Muko-Muko #		0-20
	25 Bkt.Gedang Seblat #(GR)	48,750	300-2363
	26 Bkt.Kayu Embun # (GR)	106,000	200-2447
	27 Barisan Selatan (NP)+	356,800	0-2000
LAMPUNG	28 Way Kambas # (NP)	123,000	0-50

Sources: unmarked: MacKinnon & Artha (1982); # Santiapillai (records); @ Siregar (pers.comm.) and + FAO (1981)

Legend: (GR) Game Reserve; (NR) Nature Reserve; (NP) National Park; (HR) Hunting Reserve; (PF) Protection Forest (* means proposed area).

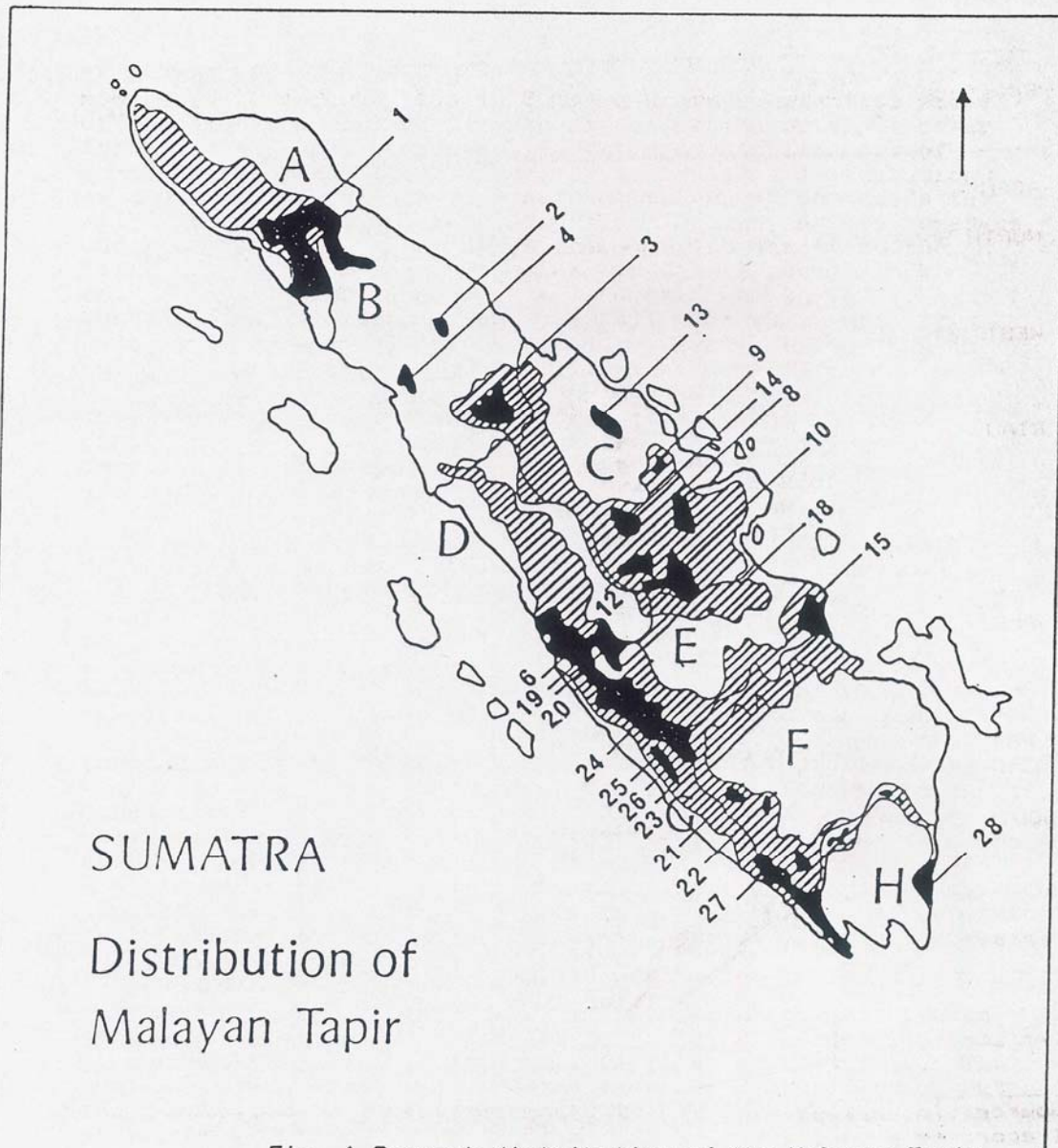


Fig. 1 Current distribution of the Malayan Tapir in Sumatra

Solid shading: Positive evidence of presence obtained. The numbers correspond to localities listed in Table 1.

Cross hatching: Extent of additional suitable habitat.

Provinces: A: ACEH, B: NORTH SUMATRA, C: RIAU,
D: WEST SUMATRA, E: JAMBI,
F: SOUTH SUMATRA, G: BENGKULU,
H: LAMPUNG

More surveys are needed to identify other viable T. indicus populations in Sumatra, and all programs to conserve the large mammals need the active support of the local people. Conservation measures that are proposed should not isolate the local people, but incorporate them and their own welfare.

References:

Blouch, R.A. 1984. Current Status of the Sumatran Rhino and Other Large Mammals in Southern Sumatra. A WWF Report. 4: Bogor, Indonesia.

Lekagul, B. & McNeely, J.A. 1977. Mammals of Thailand. Association for the Conservation of Wildlife, Bangkok.

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Tapirus pinchaque. The Mountain Tapir.

Craig Downer of the University of Durham in England, is currently undertaking a two year field study as part of a PhD dissertation entitled, "Mountain tapir study: Natural History, Movement Patterns, and Conservation Requirements" in Sangay National Park, Ecuador, South America.

He has three T. pinchaque radio-collared, and plans to radio-collar nine more as part of his study. The tapir live in cloud forest above 3,000 meters. Radio-telemetry and, perhaps, ARGOS satellite tracking will be employed to determine movement patterns of the radio-collared animals. Information on the geographical range of T. pinchaque will be gathered for all areas within Ecuador and northern Peru by interviewing biologists and natives familiar with these regions. In order to identify trends of habitat destruction, Landsat images will be assessed for Ecuador and northern Peru, and correlated with information on T. pinchaque habitat requirements.

The mountain tapir is vulnerable to extinction, both by hunting pressure and chiefly, by habitat destruction through slash and burn agriculture (IUCN 1982; Downer '78, '81). The Red Data Book (IUCN 1982: 444) states that "Adequately protected reserves are urgently required, as is much information

on population, distribution and ecology as the basis of an effective conservation plan".

The study proposed by Craig Downer will identify critical areas needing special protection throughout Ecuador and northern Peru. This information, as well as information obtained on habitat preference, diet, migrations, behaviour, and population dynamics in the main study site, will hopefully prove relevant for other South American countries, namely Venezuela and Columbia, in helping to implement a survival program for this endangered species.

Mountain tapirs are reported to live at elevations of between 1980 and 4350 meters (Morrison, 1972). Their tracks have been found in glaciers at over 4000 meters (IUCN 1982). This species is smaller, thicker-skinned, and thicker-furred than the other three species of tapir. But it does retain the water-loving character of the other members of the Tapiridae family, and reportedly, is never found far from water.

Life in the highlands of Colombia, Ecuador, Venezuela and Peru reflects a conservative evolutionary past. Mountain tapirs most closely resemble tapir ancestors which arrived from temperate North America during the Tertiary Period, 50 million years ago (Hershkovitz, 1954).

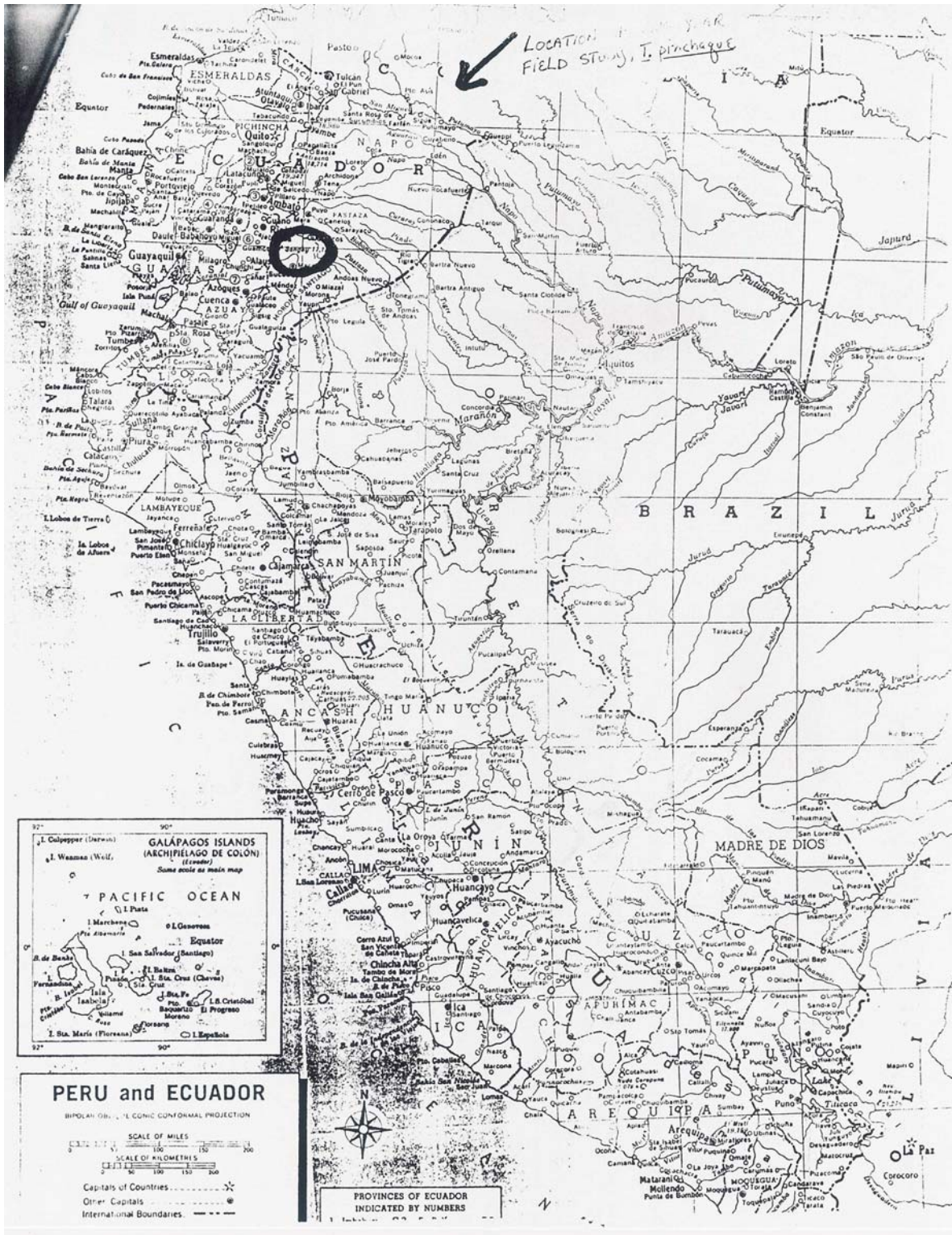
In certain regions of Peru, Ecuador and in Colombia, the mountain tapir is reported to migrate annually. According to Colombian natives interviewed by Craig Downer, the populations moves to high, open paramo during the wet half of the year, from October to May, and returns to the upper fringe of cloud forests during the drier half of the year, June to September. Similar information has been obtained from natives in Ecuador regarding migration activity.

Very little information exists about the mountain tapir, either in captivity or in the wild. Craig Downer's field research will provide invaluable information for the development of a Tapir Action Plan.

References:

Downer, Craig C. 1978, April. "Informe sobre la visita al Parque Nacional Natural de Las Hermosas." Corporacion Autonoma del Valle de Cauca, Div. Recur. Nat., Cali, Colom.

Hershkovitz, Philip. 1954. Mammals of northern Columbia - a preliminary report. No. 7: Tapirs (genus Tapirus), with a systematic review of American species. Proc. U.S. Nat.



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Morrison, Tony. 1972. Land above the clouds: wildlife of the Andes. Universe Books, N.Y. Pp. 59-63, 203.

Tapirus terrestris. The South American Lowland Tapir.

Silvia Chalukian is studying wildlife management in Herredia, Costa Rica, and is interested in conducting a long-term field project involving T. terrestris in northwest Argentina. Anyone interested in her proposed work may contact her through the address listed on the TSG Members list.

Richard E. Bodmer, PhD, has been studying the ecology of the lowland tapir in the Peruvian Amazon since 1984, and has also worked on wildlife management of other ungulates, including T. terrestris. He is concerned about the survival of tapirs in Amazonia because they are hunted heavily. His fieldwork shows that they are very susceptible to hunting due to their low recruitment rate (397 day gestation), long interbirth interval, and their extended development. The following abstract is from a paper by Richard E. Bodmer entitled, "Ungulate Management and Conservation in the Peruvian Amazon".

Subsistence and commercial hunting is of greater importance than sport hunting to ungulate management in the Peruvian Amazon. Ungulates hunted include the red brocket deer, Mazama americana, grey brocket deer, M. gouazoubira, collared peccary, Tayassu tajacu, white-lipped peccary, T. pecari, and the lowland tapir, Tapirus terrestris. Analysis of the ungulate pelt trade indicated that the management programmes put forth by the Ministry of Agriculture in Peru have successfully regulated ungulate harvest by controlling professional pelt and commercial meat hunters. Information collected from a local community of hunters revealed that lumbermen were harvesting significantly more ungulates than subsistence hunters. Lumber operations supply workers with shotguns and cartridges instead of basic foods; they decrease operational costs by encouraging them to hunt game meat. Lumbermen should therefore be considered as commercial hunters and be regulated by management programmes. Illegal meat hunters occasionally visited the study area and were quite destructive to game species when present.

Conservation

The establishment of parks and reserves, although vital to the future survival of members of the family Tapiridae, is

not a sufficient survival strategy.

Podocarpus National Park, home to T. pinchaque in Ecuador is currently being threatened by 2,000 gold seekers. Sangay National Park, where Craig Downer's study site for T. pinchaque is located, is being encroached upon steadily by cattle.

Aggressive wildlife education targeted to communities that are located nearby parks and reserves is essential for the successful management of species. Belize, Central America, has experienced a steady increase in wildlife awareness focused on T. bairdii due to the education program sponsored by The Belize Zoo. An invaluable tool has been the country-wide distribution of posters which depict an adult T. bairdii and her young (same as TSG logo). Financial assistance from Miami MetroZoo, Wildlife Preservation Trust, Int'l, and the US Fish and Wildlife Service has made the production, as well as the reprinting of these posters possible. Perhaps similar projects should be considered for areas where people are living in close proximity to protected areas that are providing sanctuaries for tapir.

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*I didn't copy this.
It's part of the Bibliography
on the
Tapir Gallery
now.*

Bibliography of the Tapiridae

Tapirus indicus (Desmarest, 1819)
Tapirus terrestris (Linne, 1766)
Tapirus bairdii (Gill, 1865)
Tapirus pinchaque (Roulin, 1829)

By: Kay A. Kenyon*, R. A. Barongi** and M. L. Matthewson**
Date: January 1990

All references are listed under one of the following headings:

1. Anatomy, Taxonomy
2. Natural History, Wild
3. General
4. Captive Husbandry, Exhibit Design
5. Reproduction and Breeding
6. Nutrition
7. Veterinary/Pathology

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