

individuals from the Tolima locality and thus support the conservation strategy.

Up until now, the tasks have been difficult because it is not easy to obtain financial resources in Colombia to develop these activities. However, we hope that by using strategies such as the development of a poster showing images, articles and providing information about mountain tapirs and international contributions, we can overcome these obstacles.

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The Nasa Wesh indigenous community plays a role in conservation of mountain tapirs in Colombia.
Photo by Franz Kaston Flórez.

Ecuador

Attitudes to Tapirs, Wilderness, and Wildlife Conservation in and around Sangay National Park, Ecuador

By Craig C. Downer

Introduction

A questionnaire survey of 15 settlements around Sangay National Park between October 2001 and March 2002 attempted to reveal the current status of the knowledge, attitudes and lifestyles of inhabitants living in and around the Park that could have an impact on both the park, its tapirs and other wildlife and the forest and paramo habitat. The survey was undertaken using a standard questionnaire and the results are expressed as percentages either of all adults responding or of the total communities surveyed which had each reached a consensus regarding the question asked. This is a part of the original report.

Results

Sixty percent, or 303 individuals indicated they hunted and fished. All 15 communities surveyed contained fishermen. Seven of the 15 communities (47%) had members who hunted the common red brocket deer (*Mazama americana*) and/or the little red brocket deer (*Mazama rufina*), which is of Near Threatened status. Six of the communities (40%) hunted many bird species. Three communities (20%) hunted the Andean Guan (*Penelope montagnii*) and other species of

guan (Cracidae spp.). Five communities (33%) each hunted the agouti (*Dasyprocta punctata*, *D. fuliginosa*) and the white-tailed deer (*Odocoileus virginianus*) of the paramos. Four communities (27%) hunted mountain tapirs (*Tapirus pinchaque*) and wild guinea pigs (*Cavia aperea*, *Cavia* spp.). In two communities each (13%), Andean bear (*Tremarctos ornatus*), parrots, collared peccaries (*Tayassu tajacu*) and white-lipped peccaries (*T. pecari*), toucans, macaws, monkeys, and various doves were hunted, including the black-winged ground dove (*Metriopelia melanoptera*). Two communities (13%) also hunted the lowland tapir (*Tapirus terrestris*). One community (7%) hunted the northern pudu (*Pudu mephistophilus*).

Of 569 adults surveyed, 358, or 63%, knew of the mountain tapir, while 296, or 52%, knew of the lowland tapir. However, the two species were often confused. Of the 15 communities interviewed, nine communities, or 60%, had members who had observed tapirs in and along rivers; eight communities had observed them at salt licks; seven in cloud forests; six in paramos; while five communities knew of them through visits to local zoos, such as the one in Baños, or another, called "Fatima", near Puyo. One community had observed tapirs at the community's well.

Six communities, 40%, indicated a shift in altitude by mountain tapirs between the lower forests during the rainy season and the higher forests and still higher open paramos during the dry season. The Shuars of Wapu said the lowland tapir is rapidly disappearing from the lower elevations of the Park along the eastern *pie de monte* Andean flank. This ancient tribe, a.k.a. *Jivaro* (Sp.), indicated that lowland tapirs shifted down in altitude during rainier seasons in parallel

fashion to the downward shift of the mountain tapirs.

Foods indicated by respondents as being eaten by tapirs included: *Nagran* (*Neurolepis aristata*), various species of grass (Poaceae spp), the umbrella plant (*Gunnera brephogea*), plantain, bananas, herbs, ferns, potatoes, dittany (stonemint, or *dictamo real* (Sp.)), *Arquitectura* (Sp.) (*Culcitium reflexum*, fam. Asteraceae, by mountain tapir in paramo), *Pogre* (Sp.), *Nasturtium* (*Tropaeolum tuberosum*), and mushrooms. Some of these observations concur with those made in previous studies of mountain tapirs (Downer 1996; Downer 2001).

Season of pairing and breeding: December-January was indicated for the mountain tapir, as has been confirmed in Downer (1996). "All year long" also was indicated for both species.

When asked if the tapir hunts other animals, the great majority recognised that tapirs were not carnivores. Communities identified the following species as preying on tapirs: puma (*Felis concolor*: six communities; Andean bears: five communities; jaguars (*Panthera onca*): four communities; humans: 11 communities; "Pumajaire" (Shuar), a mythical, large, light-colored cat believed to hunt tapirs by the Shuars of Wapu: one community.

Tapirs have religious significance to the Shuars, the Puruhaes, and other indigenous groups around the park, who believe they possess magical, including healing, powers.

Tapir parts of both species have been and remain for sale in the cities and towns around the Park including Baños, Ambato, Riobamba, Macas, Rio Palora, and Puyo. There they are sold both as medicines (especially hooves and snout) and for food and/or pelts.

The survey found that 93%, or 14 communities, noted the recent disappearance of both species of tapir. The townspeople recognise that both the destruction of forest/paramo habitat and hunting coincide with an augmented human population (Cincotta *et al.* 2000). Respondents noted that many other species were decreasing due to over-hunting, habitat destruction, pesticides, and other causes.

Those respondents who were unaware of the law that protects mountain tapirs amounted to 52%, or 350 participants and 72% of respondents were unaware of the boundaries of the Park. 77%, or 489 participants were unaware that the mountain tapir was in imminent danger of extinction. However, 71%, or 450 of respondents were aware that it was illegal to kill any animals in the Park. Interestingly, four communities, or 27%, had members who were aware that either one or both species of tapirs were seed dispersers, or helped to enrich soils through their droppings or, in general, contributed positively to the tropical ecosystems they inhabited.

Conclusion

This survey has served to reveal a gap in conservation education and law enforcement among communities surrounding and intimately associated with Sangay National Park. This Park has been designated as a "World Heritage Site" by UNESCO, but has been placed on its "In Danger" list due

to the serious problems this Park continues to experience. A more consistent and far-reaching education programme coupled with sustainable development is essential if the Park, its endangered and threatened tapirs, and other wildlife species are to continue. The Andean Tapir Fund's future focus of endeavour will follow considered outlines presented in the Tapir Specialist Group's action plans (Downer 1997; Bodmer & Brooks 1997) and incorporate new ideas from the group as well as from local stakeholders, conservation officials, and other NGOs. Please contact the Andean Tapir Fund to obtain the full results of this enquiry.

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