

TAPIR SYMPOSIUM



2001 COSTA RICA

FIRST INTERNATIONAL TAPIR SYMPOSIUM

San Jose, Costa Rica, 3-8 November 2001

REPORT

ORGANIZERS

IUCN Species Survival Commission (SSC) Tapir Specialist Group (TSG)
American Zoo and Aquarium Association (AZA) Tapir Taxon Advisory Group (TTAG)
Tapir Preservation Fund (TPF)

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INTRODUCTION

The purpose of this symposium was to conduct an overview of current tapir research (*in-situ* and *ex-situ*), conservation, education, husbandry and management issues. This important event brought together tapir (*Tapirus* spp.) specialists and conservationists worldwide. Participants included researchers, conservationists, husbandry and captive management specialists, governmental and non-governmental organization representatives and other key players in the development and implementation of tapir conservation programs.

GOALS AND OBJECTIVES

The basic objectives and goals of the symposium included the exchange and discussion of current data on field and captive studies through the presentation of papers by current tapir managers, field and captive researchers; the creation of working groups made up of representative tapir managers and researchers who will develop and prioritize key conservation and financial issues affecting the plight of endangered tapir species worldwide; the formulation of a list of specific areas and projects that need attention, synergizing efforts from field and captive communities to maximize worldwide conservation initiatives; the increase of awareness of *Tapirus* spp. on a global level through scientific, cultural, economic and political programs, utilizing scientific and lay publications, television, educational material; the creation of a global network of tapir researchers and supporters and a plan for them to work together; and the establishment of a deadline for a future meeting that will evaluate and implement the long-term goals of the symposium.

EXPECTED OUTCOME

The expected outcomes for the symposium were action planning in terms of priorities for tapir conservation; revision and expansion of the Tapir Action Plan (TAP), prioritizing key areas; creation of task forces and identification of individuals and organizations to lead these task forces; development of an improved communication network for all tapir conservationists; formulation of a long-term strategic plan that allows for the conference recommendations to be carried out and evaluated in future meetings; and publication of proceedings.

SYMPOSIUM FORMAT

The Tapir Symposium consisted of presentations by keynote speakers and other professionals addressing tapir biology, research and conservation. Session topics covered a wide range of issues relevant to tapir conservation, management and biology. Topics included: Ecological Studies, Population Management, Veterinary Issues/Diseases, Husbandry, Education, and Tapir Bio-Politics. Each session had simultaneous translation (English, Spanish). The second part was devoted to forming working groups to address and prioritize the most serious issues facing tapir conservation today. Mid-conference trips provided the opportunity for participants to either visit a tapir breeding facility (La Marina Zoo), or to spend the day watching birds and other wildlife in the Reserva Biologica La Carara. Post-conference tours were also available for those who wished to stay and enjoy Costa Rica's wonderful natural resources.

SYMPOSIUM OVERVIEW

The symposium was a historic event. Never before has there been so many tapir experts and conservationists assembled under one roof to share knowledge and address the challenges ahead for these endangered species. We had 85 participants, of which 27 were Tapir Specialist Group members (42% of the group). Participants included field researchers, husbandry and captive management specialists, non-governmental organization representatives, university representatives and other key players in the development and implementation of tapir conservation programs (See APPENDIX V for a list of participants).

A significant fact about this conference was the level of zoo participation. Ten years ago there was little or no collaboration between zoos and tapir field researchers. Today, modern zoos are focusing more on their primary mission of conservation rather than just exhibition. A good example of the modern zoos' new commitment to conservation is the support they gave to the Tapir Symposium. Over 80% of the symposium's budget was covered by donations from four major American zoos (Houston, Los Angeles, Disney and San Diego). The Directors of two of these contributory zoos, Rick Barongi from the Houston Zoo and Manuel Mollinedo from the Los Angeles Zoo, attended the symposium.

Specific topics of the paper and poster sessions were Ecological Studies, Population Management, Husbandry and Education, Veterinary Issues/Diseases and Tapir Bio-Politics. In all, 48 papers and 9 posters were presented. All of these presentations and posters provided the audience with a very complete overview of current tapir research (*in-situ* and *ex-situ*) (See APPENDIX I for the papers and posters abstracts).

Patrícia Medici chaired the **Ecological Studies** paper session in which fifteen presentations were made. During this session, biologist Diego Lizcano from Colombia shared his experience with GPS collars to study Mountain

tapirs in the Central Andes of Colombia and described the use of hunting dogs to capture and radio-collar his study animals. Biologist Charles R. Foerster from United States presented his results of a five-year telemetry study and discussed the foraging behavior and diet of Baird's tapirs in Corcovado National Park, Costa Rica. Jorge Villalobos Cespedes from Costa Rica presented results on home range characteristics and habitat use of Baird's tapirs also in Corcovado National Park. Biologist Epigmenio Cruz Aldán from Mexico presented results on feeding habits and impact of human activity on Baird's tapirs in La Sepultura Biosphere Reserve, Mexico, and discussed the biology, ecology and conservation of Baird's tapirs in the Chiapas Region, Mexico. Eduardo Jorge Naranjo Piñera from Mexico discussed his results on ecology and conservation of Baird's tapirs in the Lacandon Forest, Mexico. Biologist Carlos Erik Muench Spitzer from Mexico presented results on habitat use patterns of Baird's tapirs in two localities in the Lacandon Forest, Mexico. Ronald Tilson from United States presented estimates of population density and preliminary information about the ecology of Malay tapirs in lowland forests of Sumatra, Indonesia. Biologist Siti Khadijah from Malaysia presented her results on the distribution of Malay tapirs compared to other herbivores in three different sites in Malaysia. Forestry engineer Patrícia Medici from Brazil presented an overview of her Lowland tapir project at the Atlantic Rainforests of São Paulo State, Brazil and discussed her capture methodologies. Biologist Anah Tereza de Almeida Jácomo from Brazil presented results on the ecology of Lowland tapirs in Emas National Park, Goiás State, Brazil. Biologist Alfredo Cuarón from Mexico discussed the use of tapir tracks for population assessments.

Lewis Greene and Brandie Smith chaired the **Population Management** paper session in which six presentations were made. During this session, biologist Brandie Smith from United States presented the genetic and demographic status of captive tapirs in North America and the implications for management and conservation. Biologist Diego Lizcano from Colombia discussed the conservation priorities for the Mountain tapirs in Colombia. Biologist Edmundo Sánchez-Núñez from Mexico presented information about the historical fragmentation of Baird's tapir habitat in the Lacandon Forest in Mexico, and discussed the repercussion for the permanency of the species in the region. Biologist Denis Alexander Torres from Venezuela presented an overview of the genus *Tapirus* in Venezuela, the distribution and suggestions for conservation. Veterinarian Alexander Blanco from Venezuela shared his experience with translocation of Lowland tapirs in Henri Pittier National Park, Venezuela. Biologist Adrián Naveda from Venezuela discussed the status of tapirs in the Venezuelan Zoos.

Dr. Sonia Hernandez-Divers chaired the **Veterinary Issues/Diseases** paper session in which thirteen presentations were made. The majority of the articles presented illustrated different immobilization methods utilized in *Tapirus* sp. Javier A. Sarria-Perea from Colombia presented the results of the first cytogenetic study of *Tapirus terrestris* in Colombia. Paulo Rogerio Mangini from Brazil related his experiences in immobilizing wild *Tapirus terrestris* in Pontal do Paranapanema, Brazil, and also his results from an on-going health evaluation from the animals immobilized. Dr. Mangini also related his work with Diego Lizcano in Colombia on two wild *Tapirus pinchaque*. José Ricardo Pachaly from Brazil presented four papers that summarized his experiences on immobilizing captive *Tapirus terrestris*. Iván Lira Torres from Mexico presented two papers which were submitted by his colleague Dario M. G. Andrade. The first described the normal respiratory, reproductive and digestive bacterial flora of two captive *Tapirus bairdii* from the ZooMat Zoo that had recently died. In the second paper he illustrated the clinical course, macro and microscopic findings of a *Tapirus bairdii*, which died of capture myopathy shortly after its capture in La Sepultura Biosphere Reserve. His last presentation was the result of his work in the identification of ecto and endoparasites of *Tapirus bairdii* in Chiapas, Mexico. Sonia Hernandez-Divers from United States presented two papers. The first illustrated her anaesthetic protocol when immobilizing free-ranging *Tapirus bairdii* in Costa Rica while working with Charles R. Foerster. In the second presentation, Dr. Hernandez-Divers discussed the findings of a health evaluation performed on the aforementioned animals during a 5-year period.

Heidi Frohring chaired the **Husbandry/Education** paper session in which seven presentations were made. Biologist Juan Pablo Juliá from Argentina described the design of a plan to reintroduce the Lowland tapir in the reserves of the Universidad Nacional de Tucumán, Argentina. Veterinarian Iván Lira Torres from Mexico presented results on the behavior of captive Baird's tapirs in Mexico. Biologist Lisa A. Nordstrom from United States discussed the effects of enclosure design on tapir life history traits. Heidi Frohring from United States described the development of a captive Malay tapir at Woodland Park Zoo in Seattle, United States. Biologist Stefan Seitz from Germany discussed ways to increase natural behavior and public education in captive tapirs in Germany Zoos. Michael Dee from United States described the management of tapirs at the Los Angeles Zoo. Kathy Topham from United States shared her experience on voluntary medical sampling of tapirs at the Audubon Zoo.

Rick Barongi chaired the **Tapir Bio-Politics** paper session in which six presentations were made. Biologist Jaime Andrés Suarez Mejía from Colombia presented a plan for the management of Mountain tapirs at the Tolima Department in Colombia. Biologist Alfredo Cuarón from Mexico discussed the effectiveness of protected areas for tapir conservation in Latin America and presented results on wilderness area connectivity and changes in tapir habitat availability in Northern Mesoamerica. Nico van Strien from The Netherlands discussed the available

information about Malay tapirs distribution and conservation status in Indonesia. Dr. Susie Ellis from United States discussed the social dynamics in conservation planning and implementation.

Dr. Sonia Hernandez-Divers organized the **poster sessions** in which nine posters were displayed and presented. Veterinarian Franz Kastón Florez from Colombia presented a poster on a conservation program for the Mountain tapir in the Department of Tolima, Colombia. Oscar Long from Canada discussed the breeding and husbandry of Malay tapirs at Mountain View Farms Conservation and Breeding Centre in Canada. Stefan Seitz from Germany presented a poster on the comparative behavior and public perception of tapirs in German Zoos. James E. Norton from United States shared his experience on the development of molecular genetic markers for the assessment of population genetic variability in Baird's tapirs, and their potential for broader use in the investigation of wild tapir populations. Biologist Wilson Novarino from Indonesia presented a note on Malay tapirs in West Sumatra, Indonesia. Fabricio Carbonell from Costa Rica presented a poster on hunting and current habitat of Baird's tapirs in Volcano Tenorio National Park and Miravalles Buffer Zone in Arenal, Costa Rica. Tatiana Bichara Dantas from Brazil presented her experience at the Wild Animal Management Center in Southern Bahia, Brazil. Alfredo Cuarón from Mexico presented a poster on Lowland tapirs ranging behavior, habitat use and diet in Santa Cruz, Bolivia. Engineer Delio Mendoza Hernandez from Colombia presented his wild fauna electronic register system and tapir's sounds analysis.

The **keynote speakers** were Dr. Richard Bodmer (Kent University, England), Dr. Daniel Janzen (University of Pennsylvania, United States) and, Dr. William Konstant (Conservation International, United States). Wally Van Sickle (Idea Wild, United States) and Matthew Colbert (University of Texas, United States) conducted **special evening presentations**. Dr. Bodmer discussed the hunting and the decline of tapir populations. Dr. Janzen shared his experience on the land acquisition project at the Area de Conservación Guanacaste in Costa Rica. Dr. Konstant presented Conservation International's work on the 25 "hotspots" all over the world. Matthew Colbert made a presentation about tapir's evolution, and Wally Van Sickle presented Idea Wild's work towards helping research projects to get the necessary equipment and supplies to run their activities (See APPENDIX I for the keynote speeches and evening presentations abstracts).

We also conducted four **workshops** to discuss more specific topics related to tapir research and conservation. Wally Van Sickle conducted a workshop on **Fundraising** and exchanged ideas with participants on how to acquire funds to sustain their projects for the long-term. Patty Peters (Columbus Zoo, United States) and Diane Ledder (Disney, United States) conducted a **Marketing and Media Affairs** workshop and shared with the audience their experience on how to get the conservation message out to the general public. Patrícia Medici conducted two other workshops. The first one, the **IUCN/SSC Tapir Specialist Group** workshop, was a presentation about the group's ideas for the future, the next steps the group needs to take in order to be more active in terms of tapir conservation. The TSG's Species Coordinators, Emilio Constantino from Colombia (Mountain tapir), Denis Torres from Venezuela (Lowland tapir), Eduardo Naranjo from Mexico (Baird's tapir) and, Nico van Strien from The Netherlands (Malay tapir) were introduced to the audience and made brief comments about their views on the future of the group. For the second workshop, which focused on the **Tapir Action Plan (TAP)**, Patrícia Medici and Alfredo Cuarón from Mexico, who participated in the process of writing the first edition of the TAP, discussed the need to review and prioritize the 1997 Tapir Action Plan (See APPENDIX II for the minutes of the workshops).

The last session of the symposium was a plenary session called "**Plans for Action**". It was conducted by Dr. Susie Ellis (Conservation International, United States) who used her skills to help the group to establish its priorities and get participants committed to the proposed tasks and challenges. Each task has a leader who will be responsible for it and a committee of volunteers that will help the leader to reach the objectives. Some of the goals for the near future are related to the structure of the TSG, internal and external communication, and fundraising. In terms of structure new guidelines for future membership will be established (coordinators Patrícia Medici and Lewis Greene). Patrícia Medici, Emilio Constantino and Dr. Sonia Hernandez-Divers will lead a committee that will work on annual plans for the group's activities. Matthew Colbert will direct a committee to list the tasks for each one of the positions the group has created. Charles Foerster and his committee will develop a set of guidelines for proposals seeking TSG endorsement/support. In terms of internal communication TSG will revise the 1997 version of the Tapir Action Plan (coordinators Alfredo Cuarón and Patrícia Medici). Heidi Frohring will lead a group to improve the communication between field biologists and zoos. Ways to improve communications between biologists and veterinarians will be explored by Dr. Sonia Hernandez-Divers and her committee. In terms of external communication Alberto Mendoza will coordinate an effort to develop educational and TSG brochures. Charles Foerster, William Bob Harris, and Patrícia Medici will explore funding opportunities for TSG and tapir research projects (See APPENDIX III for the plenary session final results and recommendations).

One of the significant events at the symposium was the **auction** conducted to raise funds to donate to Dr. Daniel Janzen's efforts to purchase reserve land in the Area de Conservación Guanacaste in Costa Rica. One of the first things that the members of the planning committee discussed in the beginning of the symposium organization was

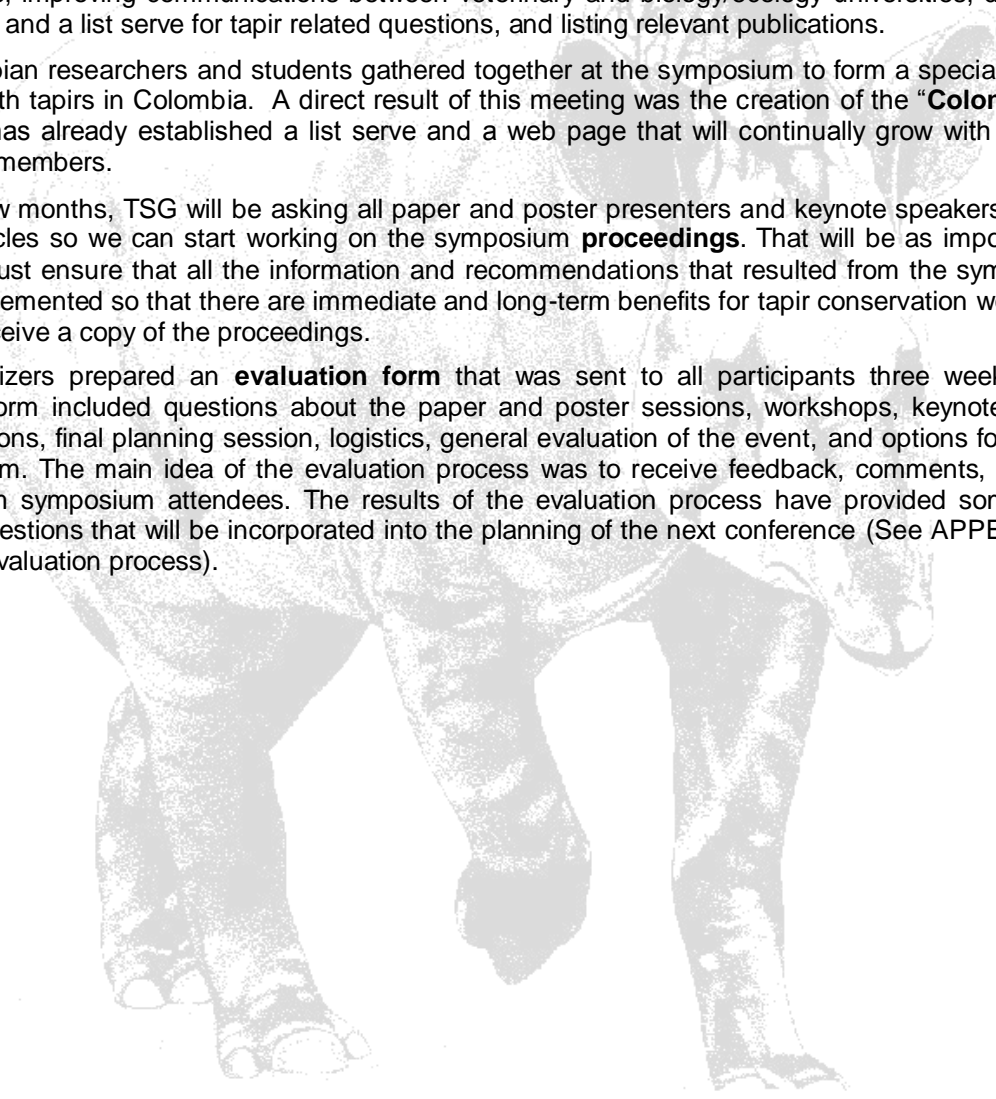
that TSG would like to leave something behind in Costa Rica. The group wanted the symposium to somehow contribute to a conservation program in the country. Attendees were asked to bring typical items from their countries to sell at the auction. Wally Van Sickle (Idea Wild, United States) kindly organized and conducted the auction and the symposium raised \$5,000 for Janzen's project. Before the auction was held, the Wege Foundation had agreed to match any amount we collected through the auction. So, in all, we actually raised \$10,000, which will buy 15 hectares of threatened rainforest in Costa Rica.

Another noteworthy event at the symposium was a meeting held by the **veterinarians** present to discuss the concerns of veterinarians working with tapirs. Some of the issues considered were a) lack of communication, b) lack of access to other veterinarian's data, research project information, articles published, c) the need to improve the availability of local vets for ecology projects that need veterinary support, and d) the need to discuss the AZA Tapir TAG and IUCN/SSC TSG Veterinary Committee goals. As a result of this meeting, the group of veterinarians, under the guidance of Dr. Sonia Hernandez-Divers, have created a list of tasks for the near future. Some of the tasks include making a list of potential functions of veterinarians in research projects, training biologists and veterinary students, improving communications between veterinary and biology/ecology universities, developing a veterinary web site and a list serve for tapir related questions, and listing relevant publications.

A group of Colombian researchers and students gathered together at the symposium to form a specialist group of those who work with tapirs in Colombia. A direct result of this meeting was the creation of the "**Colombian Tapir Network**," which has already established a list serve and a web page that will continually grow with the work of current and future members.

During the next few months, TSG will be asking all paper and poster presenters and keynote speakers to send us their complete articles so we can start working on the symposium **proceedings**. That will be as important as the event itself. We must ensure that all the information and recommendations that resulted from the symposium are published and implemented so that there are immediate and long-term benefits for tapir conservation worldwide. All participants will receive a copy of the proceedings.

Symposium organizers prepared an **evaluation form** that was sent to all participants three weeks after the conference. The form included questions about the paper and poster sessions, workshops, keynote speeches, evening presentations, final planning session, logistics, general evaluation of the event, and options for location of the next symposium. The main idea of the evaluation process was to receive feedback, comments, suggestions and criticisms from symposium attendees. The results of the evaluation process have provided some concrete statistics and suggestions that will be incorporated into the planning of the next conference (See APPENDIX IV for the results of the evaluation process).



FINANCIAL REPORT

TOTAL SYMPOSIUM BUDGET

CATEGORY	ITEM	COST US\$
ORGANIZATION	CONFERENCE CALL 08/15/2001	324.20
	CONFERENCE CALL 09/26/2001	122.81
	PHONE CALLS	300.00
	Sub-Total	747.01
PARTICIPANT SUBSIDIES *	AIRFARE	10,710.56
	REGISTRATION FEE	12,866.00
	PER DIEM	2,220.00
	FEDEX CHARGES (PLANE TICKETS MAILING)	364.52
	Sub-Total	26,161.08
REGISTRATION MATERIAL	COFFEE NOTE PADS	279.00
	BADGES	130.00
	PENS	115.00
	BAGS (SYMPOSIUM MATERIAL)	342.50
	ABSTRACT BOOKS	515.74
	Sub-Total	1,382.24
CONFERENCE COSTS	SIMULTANEOUS INTERPRETATION	2,520.00
	A/V EQUIPMENT	1,770.00
	VHS AND TV RENTAL FEE	60.00
	PHOTOCOPIES	42.00
	COFFEE BREAKS	2,875.00
	REGISTRATION ROOM	720.00
	FINAL BANQUET DINNER	2,739.00
	OPENING CEREMONY	1,412.19
	Sub-Total	12,138.19
TOTAL		40,428.52

* **PARTICIPANT SUBSIDIES:** The First International Tapir Symposium sponsored the travel (plane tickets), registration and/or per-diem expenses of twenty-three (23) participants from nine (9) developing countries, who otherwise could not have attended.

TOTAL RAISED	46,327.00
TOTAL EXPENSES	40,428.52
BALANCE *	5,898.48

* **BALANCE:** The remaining funds will be used for the edition, printing and distribution of the First International Tapir Symposium proceedings.

ACKNOWLEDGEMENTS

Symposium logistics

Caligo Ventures, United States
Horizontes, San Jose, Costa Rica
Corobici Melia Confort Hotel, San Jose, Costa Rica

Major donors

Disney Wildlife Conservation Fund, United States
Houston Zoo, United States
Los Angeles Zoo, United States
San Diego Zoo, United States
The Ledder Family Charitable Fund, United States

Other Sponsors

Agencia Española de Cooperación Internacional, Spain
Ark Angels, Canada
American Association of Zookeepers (AAZK) - The Puget Sound Chapter, Seattle, United States
American Zoo and Aquarium Association (AZA) Tapir Taxon Advisory Group (TTAG), United States
Caligo Ventures, United States
Continental Airlines, United States
Conservation International, Colombia
El Colegio de la Frontera Sur, Mexico
Fundación APAS, Colombia
Fundación TROPENBOS, Colombia
Fundacite, Venezuela
German Research Community (DFG), Germany
Instituto de Ecología, UNAM, Mexico
International Gibbon Foundation, Indonesia
Natureza e Sociedade/Programa de Treinamento para Profissionais em Conservação - USAID/WWF, Brazil
Tapir Preservation Fund - Club Tapir, United States
University of Malaysia, Malaysia
Wildlife Conservation Society
Wildlife Trust, United States
World Society for the Protection of Animals, United States
Zoo Conservation Outreach Group (ZCOG), United States
Zocriadero Ecopets, Venezuela

Special Acknowledgements

Phil and Margaret Schaeffer with Caligo Ventures in United States; Maria Consuelo, Gabi and Ana Miriam with Horizontes Travel Agency in San José; the audio/visual and simultaneous translation teams in San Jose; Jairo Costa with Águila Travel Agency in Brazil; Continental Airlines; American Airlines; Dr. Mariano Dixon and Anna Knee from IUCN Headquarters in Switzerland; Jeff Mihalyo, our logo designer; Natasha Schischakin, Alberto Mendoza and Stephen Sachnik with Houston Zoo; Dr. Richard Bodmer; Dr. Daniel Janzen and his wife Winnie Hallwachs; Dr. William Konstant; Wally Van Sickle and Idea Wild; Matthew Colbert; Dr. Susie Ellis; Patty Peters; Diane Ledder; Alfredo Cuarón; Emilio Constantino; Denis Alexander Torres; Dr. Nico van Strien; Eduardo Naranjo Piñera; Ana Virginia Mata Ferreto and the IUCN Mesoamérica; Dr. Donald Janssen; Ayessa Rourke; Dr. Kathy Topham and the Audubon Nature Institute; Club Tapir donors; Diane Jukofsky and The Rainforest Alliance; Grace Wong and Michael McCoy with the Universidad Nacional de Costa Rica (Programa Regional de Manejo de Vida Silvestre); Alejandro Campos and Telemetry Solutions Latin America; Isa Torrealba and Fabricio Carbonell with Maralvis 2000; Allison Deines and the Monteverde Conservation League; Dr. Carol Langford; Christine Pratt and the Tico Times newspaper; Juan José Rojas and the La Marina Zoo; the Carara Biological Reserve; Simón Bolívar Zoo; the students of the Universidad Nacional de Costa Rica, Juan de Dios Valdez Leal, Claudia Lorena Quan Rodas, Hector Javier Ruiz Palma and Coral J. Pacheco Figueroa, who helped us with the logistics and daily activities during the conference; and everyone who donated items for the auctions.