SECOND INTERNATIONAL TAPIR SYMPOSIUM

Panama City, Republic of Panama, 10-16 January 2004

TAPIR SYMPOSIUM

2004 PANAMA

CONFERENCE REPORT

IUCN
The World Conservation Union

TAPIR SPECIALIST GROUP

AZA

HOUSTON ZOO
NATURALLY WILD

CONSERVATION INTERNATIONAL

TAPIR SYMPOSIUM

2004 PANAMA

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ORGANIZERS

IUCN Species Survival Commission (SSC) Tapir Specialist Group (TSG)

American Zoo and Aquarium Association (AZA) Tapir Taxon Advisory Group (TAG)

Houston Zoo Inc.

PLANNING COMMITTEE

Patrícia Medici
Conservation Biologist, Lowland Tapir Project, IPÊ - Institute for Ecological Research, Brazil
Chair, IUCN/SSC Tapir Specialist Group (TSG)

Rick Barongi
Director, Houston Zoo Inc., United States
Former Chair / Member, American Zoo and Aquarium Association (AZA) Tapir Taxon Advisory Group (TAG)
Member, IUCN/SSC Tapir Specialist Group (TSG)

Philip Schaeffer
Zoologist/Conference Planner and Registrar, Caligo Ventures Inc., United States

Alberto Mendoza
Community Programs Coordinator, Houston Zoo Inc., United States
Member, IUCN/SSC Tapir Specialist Group (TSG)

Kelly Russo
Conservation Program Assistant, Houston Zoo Inc., United States
Education & Outreach Committee Coordinator, IUCN/SSC Tapir Specialist Group (TSG)

Marco Gandasegui
Vice President, ANCON Expeditions of Panama, Republic of Panama

Charles R. Foerster
Biologist, Baird's Tapir Project, Corcovado National Park, Costa Rica
Member, IUCN/SSC Tapir Specialist Group (TSG)

SYMPOSIUM LOGISTICS

Caligo Ventures Inc., United States

ANCON Expeditions of Panama, Republic of Panama

Hotel Continental, Panama City, Republic of Panama

INSTITUTIONAL SUPPORT

Africam Safari, Mexico

American Zoo and Aquarium Association (AZA) Tapir Taxon Advisory Group (TAG)

Conservation International, United States

Copenhagen Zoo, Denmark

European Association of Zoos and Aquaria (EAZA) Tapir Taxon Advisory Group (TAG)

Fundación AndígenA (AndígenA Foundation), Venezuela

Houston Zoo Inc., United States

Idea Wild, United States

IPÊ - Instituto de Pesquisas Ecológicas (Institute for Ecological Research), Brazil

IUCN/SSC Conservation Breeding Specialist Group (CBSG), United States

Municipality of Panama City, Republic of Panama

Nashville Zoo at Grassmere, United States

PJ Architects, United States

Red Danta de Colombia (Colombian Tapir Network), Colombia

Smithsonian Tropical Research Institute, Republic of Panama

Summit Zoo, Panama City, Republic of Panama

Tapir Preservation Fund (TPF), United States

Virginia Zoological Gardens, United States

MAJOR FINANCIAL SUPPORTERS

Houston Zoo Inc., United States

Conservation International, United States

Disney Wildlife Conservation Fund, United States

Peace River Center for the Conservation of Tropical Ungulates, United States

OTHER SPONSORS

Africam Safari, Mexico
Asociación Meralvis (Meralvis Association), Costa Rica
Beardsley Zoological Gardens, United States
Brookfield Zoo, Chicago Zoological Society, United States
Cheyenne Mountain Zoo, United States
Fundación Zoologica de Cali (Cali Zoological Foundation), Colombia
Center for Environmental Conservation and Research (CERC), Columbia University, United States
Chaffee Zoological Gardens of Fresno, United States
Chester Zoo, North of England Zoological Society, United Kingdom
Continental Airlines, United States
Copenhagen Zoo, Denmark
Detroit Zoological Institute, Detroit Zoological Society, United States
El Colegio de la Frontera Sur (ECOSUR), Mexico
El Paso Zoo, United States
Fossil Rim Wildlife Center, United States
Chaffee Zoological Gardens of Fresno, Fresno Zoological Society, United States
Fundación Temaikén (Teimaikén Foundation), Argentina
Hattiesburg Zoo, United States
Idea Wild, United States
International Animal Exchange Inc., United States
IUCN/SSC Conservation Breeding Specialist Group (CBSG), United States
Los Angeles Zoo, United States
Marwell Zoological Park, United Kingdom
Miami Metro Zoo, Zoological Society of Florida, United States
Miejski Ogrod Zoologiczny Lodz (Lodz Zoo), Poland
Milwaukee County Zoological Gardens, United States
Mountain View Conservation and Breeding Center, Gilman Inverstment LLC, Canada
Henry Doorly Zoo, Omaha Zoological Society, United States
Paignton Zoological & Botanical Gardens, United Kingdom
Palm Beach Zoo at Dreher Park, United States
Parc Zoologiqué Doué-la-Fontaine (Doué-la-Fontaine Zoo), France
Parc Zoologiqué de Lille (Lille Zoo), France
Parque XCARET (XCARET Park), Mexico
Rotterdam Zoo, The Netherlands
Sedgwick County Zoo, United States
The Belize Zoo and The Tropical Education Center, Belize
Ueno Zoo and Tama Zoo, Tokyo Zoo Conservation Fund, Japan
Universidad del Mar - Campus Puerto Escondido, Mexico
University of Florida, United States
White Oak Conservation Center, United States
Wildlife Conservation Society, Argentina
Wildlife World Zoo Inc., United States
Zoo Conservation Outreach Group (ZCOG) c/o Audubon Park Zoological Garden, United States

SYMPOSIUM REPORT

Background Information

Up until now, tapirs have received relatively little international attention and support, compared to their nearest relatives the rhinos and wild equids. Tapirs are becoming rare in the areas in which they occur, including the forests of Central and South America, and Southeast Asia, mostly due to habitat destruction and poaching. The IUCN Red Book lists the four species of tapirs (*Tapirus bairdii, T. terrestris, T. pinchaque* and *T. indicus*) as either vulnerable or endangered (2002 Assessment, currently under review). The Mountain tapir, *T. pinchaque*, is one of the most endangered large mammals in the world. The Baird's tapir, *T. bairdii*, is the largest land mammal in the Neotropics and also endangered. The Malay tapir, *T. indicus*, is the only Old World extant species and is also endangered in Sumatra and mainland Malaysia. The tapir is one of the first species in its habitat to be adversely affected by human disturbance. Tapirs are herbivores best suited to primary or old growth secondary forest. The slow reproduction rate of tapirs (gestation period of 13 months, inter-birth interval of two years and generally only one young per pregnancy) makes it difficult for these species to recover from low population numbers, especially if we consider that most of the habitat has been almost completely fragmented in recent years, leaving small remnant populations isolated from each other. Tapirs play a critical role in shaping and maintaining biological diversity, and function as indicator species for the health of various tropical ecosystems. Local extinction or population decrease may trigger adverse effects in the ecosystem, causing disruptions of some key ecological processes (*e.g.* seed predation and dispersal, nutrient recycling), and eventually compromising the long-term integrity and biodiversity of the ecosystem. These factors, added to the destruction of tapir habitat in recent years, justify the urgency for investigation of the status of the populations, and development and implementation of conservation and management plans.

The IUCN/SSC Tapir Specialist Group (TSG) is a scientific organization founded in 1980 as one of the 120 Specialist Groups of the International Union for the Conservation of Nature (IUCN) Species Survival Commission (SSC). The SSC is the largest of the IUCN commissions. It serves as the main source of advice to the union and its members on the technical aspects of species conservation. The SSC is a network comprised of 120 Specialist Groups and Task Forces, some addressing conservation issues related to particular groups of plants or animals, while others focus on topical issues such as reintroduction and sustainable use of species, veterinary issues etc. In addition, the SSC is responsible for the creation of the IUCN Red Data List, publication of action plans, newsletters, policy guidelines, organization of workshops etc. The SSC membership consists of over 7,000 volunteers (wildlife researchers, government officials, veterinarians, zoo employees, biologists, wildlife park managers etc) working in almost every country in the world.

The major goal of the IUCN/SSC Tapir Specialist Group is to conserve biological diversity by stimulating, developing, and executing practical programs to study, save, restore, and manage the four species of tapir and their remaining habitats in Central and South America and Southeast Asia. The TSG strives to achieve this goal through the implementation of the following strategies: a.) Frequent review, status determination, and publicizing of tapirs and their needs; b.) Promoting and supporting research, and distributing materials; c.) Promoting the implementation of conservation and management programs by appropriate organizations and governments; and, d.) Establishing strong and effective relationships among tapir conservationists to stimulate communication and cooperation. Currently, the TSG has 82 members, including field researchers, educators, veterinarians, governmental agencies and NGO representatives, zoo personnel, university professors and students, from 24 countries worldwide (Argentina, Australia, Belize, Bolivia, Brazil, Canada, Colombia, Costa Rica, Denmark, Ecuador, Germany, Guatemala, Guyana, Indonesia, Malaysia, Mexico, Republic of Panama, Peru, Taiwan, Thailand, The Netherlands, United Kingdom, United States, and Venezuela). All members are directly or indirectly involved in tapir field research and/or captive breeding in their respective regions.

The TSG and the American Zoo and Aquarium Association (AZA) Tapir Taxon Advisory Group (TAG), the main organizers of the Second International Tapir Symposium, together with the European Association of Zoos and Aquaria (EAZA) Tapir Taxon Advisory Group (TAG) and the Tapir Preservation Fund (TPF), are the key groups working on developing and implementing tapir research, conservation and management programs. An important aspect of the mission of these four groups is to contribute to the development of a coordinated international conservation strategy for tapirs. The First International Tapir Symposium was held in November 2001, in Costa Rica, and attracted 95 participants from 22 countries, proving to be a major boost for tapir conservation. Never before has there been so many tapir experts and conservationists, key players in the development of tapir conservation programs, assembled under one roof to share knowledge and address the challenges ahead for tapir species. Specific topics discussed during the First Symposium were field research, veterinary issues, population management, husbandry, fundraising, marketing, education, and tapir bio-politics. In all, 48 papers and 9 posters were presented. The last session of the First Symposium consisted of an action-planning workshop and participants developed a list of goals and actions for the future, most of them related to the structure of the TSG, internal and external group communication, fundraising, and the urgent need to review the first edition of the IUCN/SSC *Tapir Status Survey and Conservation Action Plan* (1997). Several different task forces were formed and assigned specific responsibilities, and since then, the TSG has been growing stronger and improving its structure and effectiveness in many different ways.

The International Tapir Symposium

The main purpose of the International Tapir Symposium is to bring together a multi-faceted group of tapir experts and conservationists, including field biologists and researchers, educators, husbandry and captive management specialists, veterinarians, governmental authorities and non-governmental organization representatives, academicians, politicians, and other key players in the development and implementation of tapir conservation and management programs. The main goal of this conference is to conduct overviews of current tapir research (*in-situ* and *ex-situ*), conservation and management issues, generating the necessary information to promote action planning in terms of priorities for tapir conservation in Central and South America, and Southeast Asia. Also, this conference aims to establish conservation partnerships, and develop and maintain a communication network of tapir conservationists worldwide, allowing for the conference recommendations to be carried out and evaluated in future meetings.

This symposium differs from traditional conferences in several important ways. It is a combination of presentations and planning and priority setting workshops that have a considerable impact on long-term conservation strategies for tapirs, both *in-situ* and *ex-situ*. New approaches that include protected areas development and management, community-based conservation and education initiatives, population genetics, fundraising, action planning, and public relations messages for tapir conservation are addressed and developed. A significant fact about this conference is the level of zoo participation. Ten years ago there was little or no collaboration between zoos and 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 First International Tapir Symposium. Over 80% of the first symposium's budget was covered by donations from four major American Zoos (Disney Wildlife Conservation Fund, Houston Zoo Inc., Los Angeles Zoo, and San Diego Zoo). Consequently, one of the major decisions made by the Tapir Specialist Group during the First Symposium was the creation of a TSG Zoo Committee to serve as a liaison between the communities of those working with tapirs in the wild and those working with tapirs in captive settings, improving the communication between TSG members and zoos worldwide, especially in United States and Europe. For the Second Symposium, once again the conference had the financial and/or institutional support from about sixty (60) conservation organizations worldwide, mostly tapir holding zoological institutions in United States, Europe and Japan (The complete list of institutional and financial supporters of the Second International Tapir Symposium is included in this report).

As a consequence of this partnership between the TSG, the AZA and EAZA Tapir TAGs and many zoos worldwide, field researchers and zoos have been exchanging information on a regular basis. Field researchers provide zoos with information that can be incorporated into improving husbandry standards guidelines and education of zoo visitors. On the other hand, zoo personnel have been providing field researchers with information, such as behavior, immobilization, nutrition etc, which can be used to complement their findings in the wild. Also, zoos have been incorporating information about tapir field research in their signs and graphics and have been providing ways for zoo visitors to donate funds to tapir research projects.

Finally, another important aspect of this conference is the creation of regional groups dedicated to the conservation of tapirs and their remaining habitats in Central and South America, and Southeast Asia. During the First International Tapir Symposium in Costa Rica, TSG members created two new regional conservation groups, the Colombian Tapir Network (Red Danta de Colombia) and the Mexican Committee for the Recovery and Conservation of Tapirs. Both groups are developing and implementing regional tapir conservation plans in their countries.

The Second International Tapir Symposium

The Second International Tapir Symposium was held in Panama City, Republic of Panama, from January 10 to 16, 2004. The main organizers of the conference were the IUCN Species Survival Commission (SSC) Tapir Specialist Group (TSG) and the American Zoo & Aquarium Association (AZA) Tapir Taxon Advisory Group (TAG). The members of the planning committee were Patrícia Medici, Chair, IUCN/SSC Tapir Specialist Group (TSG), Brazil; Rick Barongi, Director, Houston Zoo Inc., United States; Philip Schaeffer, Caligo Ventures Inc., United States; Alberto Mendoza, Community Programs Coordinator, Houston Zoo Inc., United States; Kelly Russo, Communications Specialist, Houston Zoo Inc., United States; Marco Gandasegui, Vice-President, ANCON Expeditions of Panama, Republic of Panama; and Charles R. Foerster, Deputy-Chair, IUCN/SSC Tapir Specialist Group (TSG). Caligo Ventures Inc. in United States was the symposium's planner, and ANCON Expeditions of Panama was the symposium's ground operator in the Republic of Panama. The conference also had a number of institutional supporters that collaborated with the organization, between them the Houston Zoo Inc. in the United States, the Copenhagen Zoo in Denmark, and the European Association of Zoos and Aquaria (EAZA) Tapir Taxon Advisory Group (TAG). The planning committee made a first visit to the Republic of Panama in January 2003 and met with the Mayor of Panama City, Dr. Juan Carlos Navarro. The mayor agreed to give the opening remarks at the symposium and promptly committed the resources of the entire staff of the Municipality of Panama City to assist the planning committee in promoting this conference.

The symposium was extremely successful and even better and more productive than the first conference in Costa Rica in 2001. We had eighty (80) participants, including tapir conservationists from nineteen (19) different countries (Argentina, Australia, Belize, Brazil, Canada, Colombia, Costa Rica, Denmark, French Guiana, Guatemala, Honduras, Malaysia, Mexico, Republic of Panama, Peru, The Netherlands, United Kingdom, United States, and Venezuela) (See the List of Participants included in this report). About 50% of the IUCN/SSC Tapir Specialist Group (TSG) membership attended the conference, and as a consequence, the group was very well represented. The Chair (Lewis Greene) and four (4) other members of the American Zoo and Aquarium Association (AZA) Tapir Taxon Advisory Group (TAG), and the Chair (Bengt Holst) and one more member of the European Association of Zoos and Aquaria (EAZA) Tapir Taxon Advisory Group (TAG) attended the conference.

Objectives and Goals

The specific objectives of the Second International Tapir Symposium were:

- Revision of the recommendations and goals listed during the First International Tapir Symposium held in November 2001, in Costa Rica, and evaluation of what has been accomplished during the past two years;
- Exchange and discussion of current data on field and captive studies through the presentation of papers, posters and keynote speeches by current tapir conservationists (field and captivity);
- Creation of committees made up of representative tapir researchers and conservationists who will develop and prioritize key research, conservation, management and financial issues affecting the plight of endangered tapir species worldwide;
- Creation of a global network of tapir researchers and supporters and plans for them to work together;
- Establishment of a deadline for the Third International Tapir Symposium.

The main goals of the Second International Tapir Symposium were:

- Action planning in terms of priorities for tapir conservation;
- Advancement in the process of revision of the IUCN/SSC *Tapir Status Survey and Conservation Action Plan* (1997);
- Formulation of a list of specific areas, regions and projects that need attention, synergizing efforts from field and captive communities to maximize worldwide conservation initiatives;
- Increase of awareness of tapirs on a global level through scientific, cultural, economic and political programs;
- Formulation of a medium-term strategic TSG Plan that allows for the conference recommendations to be carried out and evaluated in future meetings;
- Publication of symposium proceedings.

Symposium Format

The first part of the Second International Tapir Symposium consisted of keynote speeches and paper and poster sessions addressing tapir research, conservation and management. The second part of the Symposium was devoted to workshops addressing and prioritizing specific topics relevant to the conservation of the four species of tapirs and their remaining habitats in Latin America and Southeast Asia: Tapir Genetics, Tapir Husbandry and Captive Management, Action Planning for Tapir Conservation, and Fundraising. The symposium's detailed program, abstracts of all the presentations (papers, posters, keynote speeches, TSG Committees reports, and workshop presentations), as well as presenters' names, institutional affiliations, and contact info are included in this report.

Paper and Poster Sessions

Paper and poster sessions covered a wide range of issues relevant to tapir conservation, such as tapir ecology, field research, population management, threat assessments, husbandry and captive management, veterinary issues, implementation of action plans, habitat evaluations, research methodologies, identification of priority areas for tapir conservation, education, ethnozoology etc. Paper sessions were organized by species and each speaker had fifteen (15) minutes for their presentations and five (5) minutes for questions. Presentations were made in either English or Spanish and simultaneous translation was available throughout the conference. In all, fourteen (14) papers were presented, four (4) in the Lowland Tapir Session, two (2) in the Malay Tapir Session, four (4) in the Mountain Tapir Session, two (2) in the Baird's Tapir Session, and two (2) in the General Topics Session. Posters were exhibited throughout the first two days of the conference and presenters were on hand to discuss their respective posters during the coffee breaks. In all, twenty-one (21) posters were presented, seven (7) about Lowland Tapirs, three (3) about Malay Tapirs, three (3) about Mountain Tapirs, seven (7) about Baird's Tapirs, and one (1) about General Topics. Paper and poster presenters represented many different tapir range countries in Central and South America and Southeast Asia, including Argentina, Brazil, Colombia, Costa Rica, French Guiana, Guatemala, Malaysia, Mexico, and Venezuela, and also presenters from Australia, Canada and United States.

Keynote Speakers

Six (6) keynote speakers made presentations throughout the conference. Dr. William Konstant with Conservation International and Houston Zoo Inc., United States, was the first keynote speaker of the conference and gave a speech about the tapir's potential to be used as a flagship species. Patrícia Medici, Chair of the IUCN/SSC Tapir Specialist Group (TSG) made a presentation about the recently founded TSG Conservation Fund, sharing with the audience the history of the Fund and its main activities and accomplishments in 2003. Dr. Matthew Colbert with the University of Texas, United States, gave a speech about how to estimate maturity of tapirs using skeletal and dental indicators. Dr. Stanley Heckadon-Moreno with the Smithsonian Tropical Research Institute, Republic of Panama, made a general presentation about the history of Panama and the involvement of the Smithsonian Tropical Research Institute in the conservation of the natural resources of the country, mostly focusing on the Smithsonian's communications and public programs. Dr. William B. Karesh with Wildlife Conservation Society and the IUCN/SSC Veterinary Specialist Group (VSG), United States, gave a speech about conservation medicine and the many factors affecting wildlife health, and how WCS and the VSG have been addressing the complexities of maintaining ecosystem health. Wally Van Sickle with Idea Wild, United States, was the last keynote speaker of the conference and made a very inspiring presentation about Idea Wild's conservation work supporting researchers and educators around the world.

TSG Committees Reports

Another session conducted during the conference was the **TSG Committees Reports Session**. Siân S. Waters, Coordinator of the TSG Zoo Committee, and Pilar Alexander Blanco Márquez, D.V.M., Coordinator of the TSG Veterinary Committee, gave reports about the work of those committees for the past two years. Additionally, both committee coordinators conducted meetings with the members of their committees to discuss their future steps and actions for the next two years. The reports and plans for action from these committees are included in this report.

Workshops

The **Tapir Genetics Workshop** was conducted by Anders Gonçalves da Silva from Brazil, Ph.D. Graduate Student at Columbia University, United States, and Javier Adolfo Sarria Perea from Colombia, M.Sc. Graduate Student at the Universidade Estadual de São Paulo (UNESP), Brazil. The main goal of this workshop was to propose the creation of the TSG Genetics Committee and the design and establishment of the TSG International Tapir Genetics Project, a concerted effort to undertake the job of answering important genetic questions surrounding tapir conservation.

The **Husbandry and Captive Management Workshop** included presentations by AZA and EAZA Members, as well a representative from a lowland tapir range country. Lewis Greene, Chair of the American Zoo and Aquarium Association (AZA) Tapir Taxon Advisory Group (TAG) and Director of the Virginia Zoological Gardens, and Rick Barongi, former chair of the AZA Tapir TAG and Director of the Houston Zoo Inc., made a presentation about the AZA Tapir TAG Action Plan developed in 2003. Alan H. Shoemaker, Permit Advisor of the AZA Tapir TAG, made a presentation about the management plans for captive tapirs in North America. Bengt Holst, Chair of the European Association of Zoos and Aquaria (EAZA) Tapir Taxon Advisory Group (TAG) and Vice-Director of the Copenhagen Zoo, Denmark, gave a report about the activities of the EAZA Tapir TAG during the past years. Rick Barongi made a presentation about the history of tapirs in captivity in Panama and the significant developments over the past thirteen years to raise awareness for the conservation of tapirs in the country. Alberto Mendoza, Community Programs Coordinator of the Houston Zoo Inc., United States, gave an overview of the construction of the new tapir exhibit at the Summit Zoo in Panama City. Viviana B. Quse, Senior Veterinarian of the Temaikén Foundation, Argentina, presented her findings regarding hormonal and ultrasonography studies on the pregnancy of a Lowland tapir at her zoo.

The **Action Planning for Tapir Conservation Workshop** included presentations about the many different methods to develop actions plans. Olga Lucía Montenegro from Colombia, Ph.D Graduate Student at the University of Florida, made a presentation about the National Program for Tapir Recovery and Conservation in Colombia, which was designed under a joint effort of the Colombian Ministry of Environment and the Institute of Natural Sciences of the National University of Colombia, in October 2002. Dr. Eduardo J. Naranjo Piñera, researcher at El Colegio de la Frontera Sur (ECOSUR), Mexico, made a presentation about the development of the Mexican National Plan for Tapir Conservation and Recovery. Dr. Philip S. Miller, Senior Program Officer of the IUCN/SSC Conservation Breeding Specialist Group (CBSG), United States, gave a speech about the CBSG's Population and Habitat Viability Assessment (PHVA) and how it can be used as a tool to design and develop species action plans. Bengt Holst, Vice Director of the Copenhagen Zoo in Denmark, Chair of the EAZA Tapir TAG, and Convener of CBSG Europe, made a presentation about the PHVA conducted for Malay tapirs in August 2003, in Malaysia, and how the PHVA methodology was used to develop an updated Malay Tapir Conservation Action Plan.

The **Fundraising Workshop** included presentations about how to identify potential donors and raise funds for tapir conservation. Wally Van Sickle, President of Idea Wild, United States, and Patrícia Medici, Chair of the IUCN/SSC Tapir Specialist Group (TSG), shared their particular experiences and discussed the many different types of fundraising and the different types of donors, how to write successful proposals, how to approach the donors, and how to cultivate a relationship with donors. Gilia Angell, Web and Graphic Designer at Amazon.com in United States, and TSG Webmaster and Coordinator of the TSG Marketing Committee, discussed the use of Web design as a conservation tool, and the marketing and fundraising strategies for the new TSG Website and the TSG Conservation Fund (TSGCF).

TSG Plans for Action Workshop

On the final day of the conference, we held a workshop entitled TSG Plans for Action. It consisted of a full-day meeting and the main objective of this session was to set short-term goals and actions that the TSG should take during the next two years (2004-2005) in order to be more effective in terms of tapir conservation worldwide. Dr. Philip S. Miller, Senior Program Officer of the IUCN/SSC Conservation Breeding Specialist Group (CBSG), United States, and Amy Camacho, General Director of Africam Safari and Convener of the CBSG - Mexico Regional Network, facilitated the workshop.

In advance of the conference, participants were asked to prepare a list of ten (10) actions they believed should be considered as the priorities of the TSG over the next two years. Participants were requested to ask themselves "What the TSG should do as a group?" and "What actions should the TSG take in the next two years in order to be more effective in terms of tapir conservation?" The workshop facilitators reviewed the lists of actions previously prepared by the symposium participants and defined the workshop dynamics. Four (4) different working group topics were identified based on the actions suggested earlier: 1.) Research; 2.) *In-Situ* Management; 3.) *Ex-Situ* Management; and 4.) Communication & Education/Public Awareness. Participants were then asked to join one of these groups at their own discretion, and each group was requested to identify a leader, a flip-chart recorder, a computer recorder, a timekeeper, and a reporter.

As a first step, each working group was given the tasks of identifying the issues and developing the short-term goals for TSG activities related to the main topics they were covering. The goals identified by each one of the working groups during these initial deliberations were presented in a plenary session, to guarantee everyone had an opportunity to contribute to the work of the other groups, and to ensure that issues and goals were carefully reviewed and discussed by the group. Once all the identified goals were presented, each participant was asked to rank them in order of priority. The workshop facilitators then compiled the individual scores in order to obtain a group prioritization of TSG goals. As a second step, all working groups reassembled and were asked to develop a list of specific actions that TSG needs to take in order to reach those higher-priority goals. For each one of the actions, a deadline, an estimated cost, a person to be responsible for its achievement, potential collaborators, and indicators of success was established. Where necessary, similar actions developed by different working groups for an individual goal were combined in the most effective manner. Within any one goal, time was insufficient during the workshop to allow for group prioritization of actions; consequently, these actions are listed in no particular order of priority.

The final outcome of the TSG Plans for Action Workshop was a list of twenty-seven (27) priority goals and fifty-five (55) specific actions that the TSG will put into practice during the next two years (2004-2005) in order to reach those goals between now and the Third International Tapir Symposium that will be held in Chiapas, Mexico, in January 2006.

Long-term issues directly related to the conservation of the four species of tapirs and their habitats were not addressed during this specific workshop, but will be carefully discussed during the process of revision and updating of the first edition of the IUCN/SSC *Tapir Status Survey and Conservation Action Plan* (1997), which is underway. The final document produced during this workshop was carefully reviewed and edited by TSG Members and symposium participants, and is included in this report.

Auctions

Another event conducted during the symposium was an auction to raise funds for the recently founded TSG Conservation Fund (TSGCF). Attendees were asked to bring typical items from their home countries to sell at the silent and live auctions. Wally Van Sickle with Idea Wild, United States, with the help of Gilia Angell with Amazon.com, United States, kindly organized and conducted the auction and the symposium raised US$4,500 for the TSG Conservation Fund. These funds will be distributed in the form of small grants to tapir field and captivity conservation projects through a selective process, which will be conducted in April 2004. The auctions conducted during the First International Tapir Symposium in Costa Rica raised $5,000 to donate to Dr. Daniel Janzen's efforts to purchase reserve land in the Area de Conservación Guanacaste in Costa Rica. At that time, the Wege Foundation in United States agreed to match any amount we collected through the auction. So, in all, we actually raised $10,000**,** which bought 15 hectares of threatened rainforest in Costa Rica.

Mid-Conference Trips

Mid-conference trips provided the opportunity for the symposium participants to either spend the day at the Barro Colorado Island (BCI), one of the most studied patches of tropical forest managed by the Smithsonian Tropical Research Institute (STRI), or take a tour around Panama City, including visits to the City's Metropolitan Park, the Panama Viejo, and the Panama Canal Miraflores Locks. Both trips ended at the Summit Zoo in the end of the afternoon for a cocktail reception and inauguration of the new tapir exhibit attended by the Mayor of Panama City, Dr. Juan Carlos Navarro, and other local authorities, the Summit Zoo and Houston Zoo Inc. staff members that worked on the construction of the exhibit, symposium participants, and the press. Post-conference tours were also available for those who wanted to stay and enjoy Panama's wonderful natural resources.

Reception and Dedication of New Tapir Exhibit at Summit Zoo

Participants of the Second International Tapir Symposium attended the dedication of the new Tapir Exhibit at Panama City's Summit Zoo. Mayor Juan Carlos Navarro presented the new 5,000 square meter enclosure to zoo staff and visitors, while curious Baird's Tapirs explored their new surroundings. A partnership between Houston Zoo Inc. and the Municipality of Panama City was forged to bring this exhibit to reality. Jim Brighton of PJ Landscape Architects, United States, and staff at Houston and Summit Zoos combined their design and husbandry expertise with ecology knowledge from Baird's Tapir biologist Charles R. Foerster to design an enclosure that would best suit the zoo's seven (7) tapirs. Four separate trips to Panama by Houston Zoo Inc. staff, led by Houston Zoo's Community Programs Coordinator Alberto Mendoza, ensured that construction stayed on schedule and that extra hands were put to work building two large exhibits, six holding pens (all with individual pools), welding fences and building viewing platforms out of trees harvested from Summit Park. Funding for the project came from Houston Zoo's Naturally Wild Conservation Program and the Municipality of Panama City.

Symposium Evaluation Process

Symposium organizers prepared an evaluation form that was sent to all participants three weeks after the conference. The form included specific questions about the paper and poster sessions, workshops, keynote speeches, final planning session, logistics etc. and general questions about the conference as a whole. The main idea of the evaluation process is to gather feedback, comments, suggestions and criticisms from symposium attendees in order to learn about their opinions and improve the International Tapir Symposium. Most of the comments and suggestions we received during the evaluation process of the First International Tapir Symposium were extremely useful for the design and organization of the second conference. Thirty-seven (37) participants filled out the evaluation form, which means 46% of the symposium attendants. The results of the Second International Tapir Symposium evaluation process are included in this report.

Symposium Proceedings

During the next few months, TSG will be asking all paper and poster presenters, keynote speakers and workshop facilitators of the First and Second International Tapir Symposiums to submit complete articles so that a complete Proceedings CD-ROM can be produced and distributed, ensuring that all the information and recommendations generated during these conferences are published and implemented so that there are immediate and long-term benefits for tapir conservation worldwide.

FINANCIAL REPORT

ITEM		COST US$
PARTICIPANT SUBSIDIES *		
Airfare		6,629.47
Registration Fee		14,685.00
Per Diem		1,900.00
FedEx Charges (Plane Tickets Mailing)		191.10
	Sub-Total	**US$ 23,405,57**
REGISTRATION MATERIALS		
Badges		46.44
Bags and T-shirts		857.76
Books of Abstracts (100 copies)		630.00
	Sub-Total	
CONFERENCE COSTS		
Airport Transfers Panama City		94.00
Simultaneous Interpretation (English-Spanish)		5,428.00
A/V Equipment Rental		1,153.00
Summit Zoo Reception		900.00
	Sub-Total	**US$ 7,575.00**
TOTAL		**$ 31,080.57**

* **PARTICIPANT SUBSIDIES**: The Second International Tapir Symposium covered partial or total expenses of seven (7) keynote speakers and workshop facilitators, and sponsored the traveling expenses (plane tickets), registration and/or per-diem expenses of eighteen (18) key participants from eight (8) tapir range countries, who otherwise could not have attended the conference.

Keynote Speakers and Workshop Facilitators: Wally Van Sickle, United States (Registration Fee); Alan H. Shoemaker, United States (Airfare and Registration Fee); Philip S. Miller, United States (Registration Fee); Amy Camacho, Mexico (Registration Fee); Matthew Colbert, United States (Partial Registration Fee); Siân S. Waters, UK (Airfare and Registration Fee); and William B. Karesh, United States (Airfare and Registration Fee).

Participants from tapir range countries: Anders Gonçalves da Silva, Brazil (Partial Airfare, Registration Fee, and Per Diem); Olga Lucía Montenegro, Colombia (Registration Fee and Per Diem); Javier Adolfo Sarria Perea, Colombia (Airfare, Registration Fee, and Per Diem); Patrícia Medici, Brazil (Registration Fee and Per Diem); George Ortmeier Velastin, Brazil (Registration Fee and Per Diem); Eduardo J. Naranjo Piñera, Mexico (Registration Fee and Per Diem); Epigmenio Cruz Aldán, Mexico (Airfare and Per Diem); Iván Lira Torres, Mexico (Airfare and Per Diem); Juan de Dios Valdez Leal, Costa Rica (Per Diem); Diego J. Lizcano, Colombia (Airfare, Registration Fee, and Per Diem); Emilio Constantino, Colombia (Airfare, Registration Fee, and Per Diem); Jaime Andres Suárez Mejía, Colombia (Airfare, Registration Fee, and Per Diem); Sergio Sandoval Arenas, Colombia (Registration Fee and Per Diem); Adriana Sarmiento Dueñas, Colombia (Per Diem); Denis Alexander Torres, Venezuela (Airfare, Registration Fee, and Per Diem); Pilar Alexander Blanco Márquez, Venezuela (Airfare, Registration Fee, and Per Diem); Adrián Naveda Rodriguez, Venezuela (Airfare and Per Diem); and Silvia C. Chalukian, Argentina (Registration Fee and Per Diem).

SYMPOSIUM PROGRAM

January 10

Arrival and Registration - Opening Night Reception

January 11

08:00 - 09:00 OPENING SESSION

08:00 - 08:30 **Juan Carlos Navarro**, Mayor of Panama City
08:30 - 08:45 **Rick Barongi**, Houston Zoo Inc. and AZA Tapir Taxon Advisory Group (TAG)
08:45 - 09:00 **Patrícia Medici**, Chair, IUCN/SSC Tapir Specialist Group (TSG)

09:00 - 10:00 KEYNOTE SPEAKER

Are Tapirs Good Flagship Species for Wildlife Conservation?
William Konstant
Conservation International & Houston Zoo Inc., USA

10:00 - 10:30 Coffee Break & Poster Session

10:30 - 11:50 PAPER SESSION 1: Lowland Tapirs

10:30 - 10:50 Lowland Tapir at the Amazonas-Putumayo-Napo Region at the Peruvian Amazon: Effects of Human Pressure on Tapir Abundance
Olga Lucía Montenegro, Ph.D. Graduate Student, University of Florida, USA

10:50 - 11:10 Tapir (*Tapirus terrestris*) Habitat Use Related to Cattle Presence in El Rey National Park, Salta, Argentina
Silvia C. Chalukian, Wildlife Conservation Society, Argentina

11:10 - 11:30 Diet of Lowland Tapir (*Tapirus terrestris*) at the Yavari-Miri River, Northeastern Peruvian Amazon.
Olga Lucía Montenegro, Ph.D. Graduate Student, University of Florida, USA

11:30 - 11:50 Anesthetic Protocols Used on *Tapirus terrestris* in Venezuela
Pilar Alexander Blanco Márquez, D.V.M. FUNPZA, Venezuela / Earthmatters.org, USA

11:50 - 12:30 PAPER SESSION 2: Malay Tapirs

11:50 - 12:10 Behavioral Ecology of the Malay Tapir, *Tapirus indicus*
Carl Traeholt, Research Coordinator, Malay Tapir Project, Krau Wildlife Reserve, Malaysia

12:10 - 12:30 Asian Tapir Management at Mountain View Conservation Center, With Some Notes on the Management of a Female Mountain Tapir
Douglas M. Richardson, General Curator, Mountain View Conservation and Breeding Center, Canada

14:00 - 15:20 PAPER SESSION 3: Mountain Tapirs

14:00 - 14:20 Food Availability and Use by Mountain Tapir (*Tapirus pinchaque*) in the Central Andes of Colombia
Diego J. Lizcano, Durrell Institute of Conservation and Ecology (DICE), University of Kent, UK

14:20 - 14:40 Action Plan for the Conservation of the Mountain Tapir (*Tapirus pinchaque*) in the Colombian Coffee Growing Region
Jaime Andres Suárez Mejía, Universidad Tecnológica de Pereira, Colombia

14:40 - 15:00 Mountain Tapir Conservation Project in the South of the Central Andes of Colombia
Sergio Sandoval Arenas, Cali Zoological Foundation, Colombia

15:00 - 15:20 Remnant Habitat for Mountain Tapirs at the Northeastern Andes of Colombia
Olga Lucía Montenegro, Ph.D. Graduate Student, University of Florida, USA

15:20 - 16:00 PAPER SESSION 4: Baird's Tapirs

15:20 - 15:40 A Correlation Factor to Estimate Baird's Tapir Population Density in the Rainforest
Juan de Dios Valdez Leal, PRMVS, Universidad Nacional, Costa Rica

15:40 - 16:00 Ecology of Baird's Tapir in a Cloud Forest of Southeastern Mexico
Iván Lira Torres, Instituto de Ecología, Universidad del Mar - Campus Puerto Escondido, Mexico

16:00 - 16:30 Coffee Break & Poster Session

16:30 - 17:10 PAPER SESSION 5: General Topics

16:30 - 16:50 The Influence of Large Herbivores on Neotropical Forests
Charles R. Foerster, Leader, Baird's Tapir Project, Corcovado National Park, Costa Rica

16:50 - 17:10 Conservation of the Baird's and Lowland Tapirs Through *In-Situ* Partnerships
Jessica Hoffman, Fossil Rim Wildlife Center, USA

19:00 - 20:00 KEYNOTE SPEAKER
The TSG Conservation Fund: History and 2003 Report
Patrícia Medici
Chair, IUCN/SSC Tapir Specialist Group (TSG), Brazil

19:00 - 22:00 AUCTIONS: Fundraising for the TSG Conservation Fund (TSGCF)

January 12

08:00 - 09:00 TAPIR SPECIALIST GROUP COMMITTEES: Reports

08:00 - 08:30 The Tapir Specialist Group Zoo Committee
Siân S. Waters, Coordinator, TSG Zoo Committee, UK

08:30 - 09:00 The Tapir Specialist Group Veterinary Committee
Pilar Alexander Blanco Márquez, D.V.M., Coordinator, TSG Veterinary Committee, Venezuela

09:00 - 10:00 KEYNOTE SPEAKER
Estimating the Maturity of Tapirs Using Skeletal and Dental Indicators
Matthew Colbert, The University of Texas at Austin, Department of Geological Sciences, USA

10:00 - 10:30 Coffee Break & Poster Session

10:30 - 12:30 WORKSHOP 1: Tapir Genetics: A Concerted Effort
Anders Gonçalves da Silva, Ph.D. Graduate Student, CERC, Columbia University, USA
Javier Adolfo Sarria Perea, D.V.M., M.Sc. Graduate Student, FCAV UNESP, Brazil

14:00 - 16:00 WORKSHOP 2: Tapir Husbandry and Captive Management (Part A)

14:00 - 15:00 The American Zoo and Aquarium Association (AZA) Tapir Taxon Advisory Group (TAG) Action Plan
Lewis Greene, Director, Virginia Zoo, USA; Chair, AZA Tapir Taxon Advisory Group (TAG)
Rick Barongi, Director, Houston Zoo Inc., USA; Member, AZA Tapir Taxon Advisory Group (TAG)

15:00 - 15:30 2003 Management Plans for Captive Tapirs in North America
Alan H. Shoemaker, Permit Advisor, AZA Tapir Taxon Advisory Group (TAG), USA

15:30 - 16:00 The European Association of Zoos and Aquaria (EAZA) Tapir Taxon Advisory Group (TAG) - A Report
Bengt Holst, Vice-Director, Copenhagen Zoo, Denmark; Chair, EAZA Tapir Taxon Advisory Group (TAG)

16:00 - 16:30 Coffee Break & Poster Session

16:30 - 18:00 WORKSHOP 2: Tapir Husbandry and Captive Management (Part B)

16:30 - 17:00 Tapirs and Panama, from a Captive Perspective
Rick Barongi, Director, Houston Zoo Inc., USA; Member, AZA Tapir Taxon Advisory Group (TAG)

17:00 - 17:30 Building a New Exhibit for the "Macho de Monte" at the Summit Park, Republic of Panama
Alberto Mendoza, Community Programs Coordinator, Houston Zoo Inc., USA

17:30 - 18:00 Hormonal and Ultrasonography Studies During the Pregnancy of Lowland Tapir
Viviana B. Quse, D.V.M., Department of Animal Health, Fundación Temaiken, Argentina

19:00 - 20:00 KEYNOTE SPEAKER
Panama, the Land and the People
Dr. Stanley Heckadon-Moreno
Director of Communications and Public Programs, Smithsonian Tropical Research Institute, Panama

January 13

Mid-Conference Field Trips

January 14

08:00 - 10:00 **WORKSHOP 3:** Action Planning for Tapir Conservation (Part A)

08:00 - 09:00 The National Programme for Tapir Conservation and Recovery in Colombia
Olga Lucía Montenegro, Ph.D. Graduate Student, University of Florida, USA

09:00 - 10:00 Mexico's National Plan for Tapir Conservation and Recovery
Eduardo J. Naranjo Piñera, El Colegio de la Frontera Sur (ECOSUR), Mexico

10:00 - 10:30 **Coffee Break**

10:30 - 12:30 **WORKSHOP 3:** Action Planning for Tapir Conservation (Part B)

10:30 - 11:30 Managing the Human Animal: CBSG's Population and Habitat Viability Assessment (PHVA) Workshop Process for Species Action Planning
Philip S. Miller, Senior Program Officer, IUCN/SSC Conservation Breeding Specialist Group (CBSG), USA

11:30 - 12:30 Malay Tapir Workshop in Malaysia
Bengt Holst, Vice-Director, Copenhagen Zoo, Denmark; Chair, EAZA Tapir Taxon Advisory Group (TAG)

14:00 - 16:00 **WORKSHOP 4:** Fundraising (Part A)

Practical Ideas and Useful Tips to Raise Funds for Tapir Conservation Projects
Wally van Sickle, President, Idea Wild, USA
Patrícia Medici, Chair, IUCN/SSC Tapir Specialist Group (TSG), Brazil

16:00 - 16:30 **Coffee Break**

16:30 - 18:00 **WORKSHOP 4:** Fundraising (Part B)

Web Design as Conservation: Marketing and Fundraising Strategies for the New TSG Website and Conservation Fund
Gilia Angell, Web/Graphics Designer, Amazon.com, USA

19:00 - 20:00 **KEYNOTE SPEAKER**

One Health - A Broader Approach to Conservation
William B. Karesh, D.V.M.
Head, Field Veterinary Program, Wildlife Conservation Society (WCS), USA
Co-Chair, IUCN Veterinary Specialist Group (VSG)

January 15

08:00 - 18:00 **WORKSHOP 5:** TSG Plans for Action

Facilitators **Philip S. Miller**, Senior Program Officer, IUCN/SSC Conservation Breeding Specialist Group (CBSG), USA
Amy Camacho, General Director, Africam Safari; Convener, CBSG Mexico

19:00 - 20:00 **KEYNOTE SPEAKER**

Idea Wild: Supporting the Heroes of the World
Wally van Sickle
President, Idea Wild, USA

20:00 - 24:00 **Final Banquet Dinner**

January 16

Departure and Transfers to Airport - Post Conference Tours

SYMPOSIUM ABSTRACTS

PAPER SESSION 1: LOWLAND TAPIRS

Lowland Tapir at the Amazonas-Putumayo-Napo Region at the Peruvian Amazon: Effects of Human Pressure on Tapir Abundance

Olga L. Montenegro[1], Mario Escobedo[2], Debra Moskovits[3], Corine Vriesendorp[3], Alvaro del Campo[3] & Guillermo Knell[3]

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We report contrasting abundance of Lowland tapir at three sites of northern Peruvian Amazon. Data come from a rapid biological inventory carried out by the Field Museum of Natural History at the headwaters of Yaguas, Ampiyacu and Apayacu rivers at the northern Peruvian Amazon on August 2003. Habitats in the area include upland, seasonally flooded, swamp and some secondary growth forests. Human pressure differs among the surveyed sites. At the Yaguas River there is almost no human presence, except for one small community at the river's mouth. The site at the Ampiyacu River has slight human impact, especially from past rubber exploitation and current low scale timber extraction and sporadic hunting. The site at the Apayacu River was the most impacted of the three, since members of the downstream communities often visit it for hunting; fishing and other resource extraction. Relative abundance of Lowland tapirs was clearly the highest at the Yaguas River, followed by the Ampiyacu and Apayacu rivers, with 2.5, 0.7 and 0.4 tracks/km respectively. At the Yaguas River, also we recorded up to 11 direct observations of tapirs in a two-week period. Low human impact and high Lowland tapir abundance at the Yaguas River offer an opportunity for tapir conservation in this part of the Peruvian Amazon.

Tapir (*Tapirus terrestris*) Habitat Use Related to Cattle Presence in El Rey National Park, Salta, Argentina

Silvia C. Chalukian[1], Soledad de Bustos[2], Leonidas Lizárraga[2], María Saravia[2] & Juan F. Garibaldi[3]

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[2] Universidad Nacional de Salta, Argentina
[3] Consultant in Forestry, Argentina

In Argentina's northwestern forests, tapirs find the most extended habitat for their survival, but shared with cattle, roaming free almost over the whole region. Many scientists agree about the negative impact caused by cattle ranching on natural ecosystems, but there are few studies about this topic. In 2002 we initiated a study about cattle impact on tapirs in El Rey National Park, Argentina. With 44,162 hectares, subtropical climate, and seasonal summer rains, the Yungas forests (montane or cloud forest) is the dominant type of vegetation. Our main objectives are: 1) Evaluate the influence of feral cattle on tapir habitat use; 2) Gather basic information about tapir's ecology. We compared habitats and tapir's habitat use along 16 km in 8 similar streams with and without feral cattle permanence. Fecal samples for diet and parasites, and browsed plants were collected. Applying the Neu method (X^2 test and Bonferroni Z test), we found statistical differences comparing frequency of use and counts of track groups between sites with cattle (less used than expected) and sites without cattle (more used). Few significant differences of vegetation structure among sites were found, and interference could be an important factor. Detailed diet overlap, daily movement and habitat studies should still be performed.

Diet of Lowland Tapir (*Tapirus terrestris*) at the Yavari-Miri River, Northeastern Peruvian Amazon

Olga L. Montenegro[1] & Richard E. Bodmer[2]

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Most studies on tapir diet use fecal samples, which cannot be used to determine the composition of browse using macro analysis, and require micro-histological analysis to determine browse species. In the western Amazon, the high diversity of plants makes micro-histological analysis difficult, since the key would need to include thousands of plant species. In this paper we present the composition of browse plants in the Lowland tapir diet using a collection of botanical samples from plants browsed along tapir trails. Plants browsed by Lowland tapirs were collected from plants eaten along tapir trails in the middle course of the Yavari-Miri River, northeastern Peruvian Amazon, from January to December 2001. Botanical specimens for plant identification were collected and identified at the *Herbarium Amazonence* in Iquitos, Peru. We collected one hundred thirty-four browse samples, which include 89 species from 31 plant families. The most common families of Lowland tapir browse were from Melastomataceae, Rubiaceaae, Myristicaceae, Euphorbiaceace, Fabaceae and Sapotaceae. Fruit eaten by Lowland tapir varied throughout the year, depending on fruit availability. Fruits in the Lowland tapir's diet in this region include a number of palm species (mainly *Mauritia flexuosa* and *Oenocarpus bataua*), a Moraceae (*Ficus insipida*), an Anacardiaceae (*Spondias mombin*) and an identified Annonaceae.

Anesthetic Protocols Used on *Tapirus terrestris* in Venezuela

Pilar Alexander Blanco Márquez[1, 2] & Víctor Juan Blanco Márquez[3]

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The purpose of this paper is to present the experiences related to capture and immobilization protocols used for wild and captive tapirs in order to standardize methods that guarantee the security and well being of the animals, as well as the correct utilization of the anesthetics and adequate procedures. The main objectives of this study were to establish a standardization of anesthetic protocols for chemical immobilization of *Tapirus terrestris*, an unification of technical criteria for anesthetic drugs utilization, development of a form to register capture and immobilization data, and establishment of an anesthetic administration regime. The standard data collection form allowed us to compare the anesthetic and physiological variances according to the procedure type (capture, translocation, immobilization, surgery, collection of samples etc). The anesthetic drugs were administrated using direct (by syringe) and distance (blowpipe and pistol) injection methods. Immobilized animals were captive, semi-captive and wild. In the last case, we placed bait stations to attract the animals. The anesthetic protocols that provided the most adequate results with minimal physiologic compromise were: 1.) Ketamine (3.5 - 4 mg/Kg) plus Xylazine (2 - 2.2 mg/Kg) IM supplemented with Ketamine 1.4 mg/Kg IM or IV; 2.) Telazol (2.5 - 2.8 mg/Kg) supplemented with Ketamine 1.2 - 1.5 mg/Kg IM or IV; 3.) Butorphanol (30 - 40 mg/animal) plus Xylazine (0.5 - 1 mg/Kg); 4.) Etorphine (1.0 - 1.2 mg/animal). The antagonists were Tolazoline 4 mg/Kg (to revert Xylazine) and Diprenorphine 2 mg/mg (to revert Etorphine). These results will be very useful to veterinarians and biologists working on tapirs with the goal to establish a global and standardized immobilization, capture, management and Dx examination techniques program.

PAPER SESSION 2: MALAY TAPIRS

Behavioral Ecology of the Malay Tapir, *Tapirus indicus*

Carl Traeholt

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A research project on the behavioral ecology of Malay tapirs, *Tapirus indicus* was implemented in August 2002 as a joint venture between Department of Wildlife and National Parks, Malaysia and Copenhagen Zoo, Denmark. The project takes place in Krau Wildlife Reserve that covers 63,000 ha of primarily lowland tropical rainforest. The objective of the project is to capture up to 10 Malay tapirs and fit them with radio-transmitters in order to study their habitat requirements, home-range size, population density and possibly social behavior. After having tested the use of both pitfalls and darting from high-hides, we have decided to utilize lightweight steel traps that we can assemble and/or dismantle in less than an hour. Due to very low population densities the two first methods are unsuitable for trapping Malay tapirs in Krau. To date two individuals have been captured which reflects a critically low population density. One female was caught in October, 2002 and monitored for 7 months before loosing signal, possibly due to transmitter failure. The female established a home-range spanning more than 25 km^2 and traveled more than 4 km on certain days. A male tapir was caught in October, 2003 but unfortunately we lost signal of this individual, again due to transmitter failure, after only 7 days. By positioning camera traps at salt licks and other places frequently visited by tapirs, we have monitored visit frequencies and time of day. It appears that tapirs visit salt licks much more frequently than other animals and that they do so at relatively constant intervals.

Asian Tapir Management at Mountain View Conservation Center, With Some Notes on the Management of a Female Mountain Tapir

Douglas M. Richardson, Oscar Long & Gordon Blankstein

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Since the arrival of the first animals in July 1994, Mountain View Conservation Center has had seven tapirs of two species, *indicus* and *pinchaque*, in the collection; an additional three animals were stillborn. The current population consists of two pairs of *indicus* and a single female *pinchaque*. All the animals are managed in simply designed barns but they have access to very large, by captive standards, outdoor enclosures that can generally by described as rugged, forest terrain. All of our tapirs are conditioned to being stroked and handled to varying degrees. This allows us to carryout routine, simple health checks and, when warranted, conduct simple veterinary procedures without the need for physical or chemical restraint. A total of five *indicus* have been born at Mountain View to two different pairs, 1.1 being reared fully. The adult pairs of *indicus* are housed in adjacent enclosures, which stimulates the males to aggressively defend and mark the common perimeter fence. The effect of this activity on the respective females is unclear. A pair of *pinchaque* arrived in August 2001, but both were in poor physical. Prior to the male's death, both animals were managed together and given routine access to a large, but steeply sloped wooded ravine. The temperate rainforest climate of southern British Columbia, coupled with a more challenging environment than the species is normally accustomed to in a captive environment, triggered a rapid improvement in both the health of the two animals and the level of their compatibility with each other. The female remains in excellent health.

PAPER SESSION 3: MOUNTAIN TAPIRS

Food Availability and Use by Mountain tapir (*Tapirus pinchaque*) in the Central Andes of Colombia

Diego J. Lizcano

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Diet of Mountain tapir (*Tapirus pinchaque*) and availability of food, were compared to detect main item plants and species that could affect tapir populations by potential plant depletions. Seasonal faecal samples were collected and analyzed by microhistology techniques. Food availability was measured during 12 months in 2002-2003, in terms of biomass and diversity, in 1m x 1m plots, along 15 point-quadrant transects of 100m in upper mountain rain forest and Paramo in "Los Nevados" National Park. 129 plant species were identified as available for herbivores and tapir uses 90% of them. In biomass terms, *chusquea* sp. and grasses were the most available plants. Main items in Mountain tapir diet were Asteraceae and Melastomataceae family plants, the conservation of which would be essential for the Mountain tapir populations. Despite their high dietary diversity, tapirs could be affected especially by shared food use with cow and horses in Paramo habitats. Deforestation to crop potatoes, fires and woody plant extractions for firewood would caused a decrease of shrubby stratum, food diversity and patchiness, and could force an increase of competitive risks, with cattle and native herbivores. Management priorities should be focus to monitor tapir density, discourage a livestock carrying increase and avoid firewood extraction in "Los Nevados" National Park.

Action Plan for the Conservation of the Mountain Tapir (*Tapirus pinchaque*) in the Colombian Coffee Growing Region

Jaime Andres Suárez Mejía

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This paper will present the strategy for the conservation of the Mountain tapir (*Tapirus pinchaque*) in the Colombian coffee growing region. This conservation strategy was developed in consultation with several different institutions and researchers. It is articulated with the National Programme for Tapir Conservation and Recovery In Colombia. The strategy has a main goal, which is to maintain viable populations of Mountain tapir in the long-term. It involves an action plan, which comprises 5 main objectives: to promote research, to develop a communication strategy to sensitize people, to develop a securing food program, to experiment several sources of renewable energy for people in the high Andes, and to promote inter-institutional coordination for planed biological corridors and hunting control. The strategy will be materialized in an action plan which starts in 2004 to 2006, specifying value for its development and responsible or participants. This action plan will allow us to initiate specific actions for Mountain tapir conservation in the region, which has good potential to succeed in the long term.

Mountain Tapir Conservation Project in the South of the Central Andes of Colombia

Sergio Sandoval Arenas

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Habitat fragmentation is probably the biggest problem to solve for the conservation of Mountain tapir populations along its distribution range. When habitat fragmentation occurs, wild populations are exposed to external factors like poaching, border effects, accidentsetc. Moreover, the isolation of groups of individuals in small "islands" reduces heterocigozity levels and threatens resulting subpopulations. In isolated populations inbreeding can occur, then adaptability can be affected with time, especially when an epidemic disease or a catastrophe comes. In this study we are evaluating the condition of Mountain tapir populations as a first step in a long-term strategy to create a biological corridor system for Mountain tapir and its associated fauna and flora in the south of Central Andes of Colombia which will connect three national parks. The project is divided in various phases starting with a first one of twelve months in which we are constructing a Geographic Information System based on Mountain tapir populations inhabiting the study area (Andean region in Cauca and Valle del Cauca provinces). At the same time we are performing a series of workshops, interviews and surveys with local indigenous and mestizo populations to evaluate human perceptions and attitudes in relation to Mountain tapirs. The information gathered in this way will be analyzed and used to construct an environmental education strategy adapted to local reality. In this paper we will focus on preliminary and expected results for the first phase of the project.

Remnant Habitat for Mountain Tapirs at the Northeastern Andes of Colombia

Olga L. Montenegro[1] & Milton H. Romero[2]

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An evaluation of remnant habitat for Mountain tapir at northeastern Andes of Colombia under jurisdiction of 4 neighboring regional environmental agencies was conducted in year 2002, as part of a joint wildlife management and conservation project. Although data for the whole eastern cordillera was considered, the study focused on the region located between 3^{o} - 7^{o} N and 72^{o} -75^{o} W, in an area of over 4 million ha. The extent of current Mountain tapir habitat remnants in this area was assessed by examining current land cover and land use of those areas above 2000 m. Importance of remnant habitat fragments was assessed according to size and connectivity, as well as tapir distribution records. The study area currently has 569,076 ha of remnant natural vegetation (cloud forest, high Andean scrubs and paramos), accounting for only 23.5% of original habitat in this region. The remnant habitat is not continuous, but spread in 33 fragments of size ranging from 17 ha to 150,144 ha. The three most important habitat fragments coincide to current protected areas and their neighborhoods. Smaller fragments could be of importance for Mountain tapir if conservation actions are taken involving neighboring areas currently under other regional environmental agencies management.

PAPER SESSION 4: BAIRD'S TAPIRS

A Correlation Factor to Estimate Baird's Tapir Population Density in the Rainforest

Juan de Dios Valdez Leal[1] & Charles R. Foerster[2]

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The purpose of this study was to formulate a Correlation Factor (CF) that could be applied to data from track counts and direct sightings along transects to estimate actual population density for Baird's tapir. The study was conducted with eight free-ranging tapirs in the Sirena Sector Corcovado National Park, Costa Rica. On a monthly basis, we monitored the movements of the tapirs via radio telemetry during continuous 24-hour periods. We also conducted monthly track counts and direct sightings (diurnal and nocturnal) along 18 transects (500 m) in the study area. We found differences between months (F=3,17; gl=3,30; P=0.046), in the average daily movement patterns of the tapir. An average of 2,32 tracks/km were counted (209 total; 114 in primary forest transects and 95 in secondary forest transects). We found differences between transects in the number of tracks (F=4,66; gl= 17,179; P=0.0001). Only eight direct observations were made, all during nocturnal counts and only in the month of January (6 in secondary forest, 2 in primary forest). We calculated the CF by dividing the actual population density in the study area by the average number of tracks counted. The actual tapir population density (2,866 tapirs/km^2) was calculated by radio telemetry using the program Telam88. The resulting CF was 1,234 tapirs/km^2 for every track/km counted. With the results of this study, researchers throughout Central and South America can establish traditional (and inexpensive) track count and sightings studies in their area and apply the CF to obtain a much more reliable assessment of their tapir population.

Ecology of Baird's Tapir in a Cloud Forest of Southeastern Mexico

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The purpose of this study was to investigate the relative abundance, density, habitat use, impact of ecotourism and coffee plantations, and hunting of Baird´s tapir (*Tapirus bairdii*) in Polygon I of the El Triunfo Biosphere Reserve, Chiapas, Mexico. Relative abundance indices and density estimates obtained along 456.9 km of transect lines (0.67 tracks/km; 0.25 tapir feces/km; 0.40 ind./100km, and 0.07 ind./km^2) were slightly different from those reported in previous studies. Baird´s tapir was more abundant and used with greater intensity the Cloud Forest with respect to the other vegetation types (P <0.01). Tapirs also avoided moving along transects with ecotourism activities (P <0.0001), and very disturbed habitats such as coffee plantations. The analysis of interviews with residents of the study area and staff of the reserve, suggests that occasional tapir hunting persists mainly around the limits of the core area, where a constant transformation of forests into coffee plantations exists. The permanence of Baird´s tapir in the study area will not only depend on avoiding further opening of transects for ecotourism, bird watching, and other recreational activities in the protected area, but also on looking for alternative agro-forestry systems which may help to diminish hunting pressure towards this mammal in the buffer zones of the El Triunfo Biosphere Reserve.

PAPER SESSION 5: GENERAL TOPICS

The Influence of Large Herbivores on Neotropical Forests

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The project "Influence of Large Herbivores on Neotropical Forests" is a coordinated research initiative that will be conducted in four field sites in four countries of Latin America: El Rey National Park in Argentina, Morro do Diabo State Park in Brazil, Los Nevados National Park in Colombia, and Corcovado National Park in Costa Rica. This project is an innovative conservation initiative and will investigate the role large herbivores (tapirs, deer and peccaries) play in maintaining and shaping the plant communities of Neotropical forests. Many ecologists have documented the important roles played by large mammals in seed dispersal, seed predation, herbivory, and pollination, but until recently few have considered what would happen if the large mammals were removed from the system. The primary goal of this project is to describe the influence large herbivores exert on the understory plant communities of four different Neotropical ecosystems of Argentina, Brazil, Colombia and Costa Rica. Specifically, the main objective of the study is to examine how the removal of large herbivores will affect the physical structure and floristic diversity of the understory plant communities in primary and secondary forest habitats at each site. In order to simulate the removal of large herbivores from the forests, we will construct exclosures to prevent them from foraging on vegetation in selected areas. Data will be gathered on variables to describe structural and floristic changes in the plant communities over time.

Conservation of the Baird's and Lowland Tapirs Through *In-Situ* Partnerships

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It is recognized that there are many international and national, social, political, and economic circumstances that affect the prospects of conserving biological diversity *in-situ*. The Center for Ecosystem Survival concentrates on *in-situ* strategies and actions, which aid in part to help promote the conservation of the Baird's and Lowland tapir. It is important to note however, that recommendations presented for conservation often emphasize only the case of the individual species. To be fully successful, it is essential that any actions directed to its conservation should complement and enhance initiatives to conserve biological diversity at the ecosystem and landscape level as well as at the species level. In order to increase the chance of survival of tapir populations it is important to link the habitat conservation areas with direct conservation stewardship through partnership. The Center for Ecosystem Survival, in 1988, developed a model *in-situ* conservation program founded to unite zoos, aquariums, natural history museums, botanical gardens and science centers in a concerted conservation alliance to preserve threatened and endangered *in-situ* ecosystems worldwide. Through the combined efforts of the more than 117 zoos, aquariums, and schools, the CES program has raised more than $2.5 million for field conservation projects throughout Latin America. These include the purchase and/or protection of endangered and threatened habitat in Costa Rica such as the Guanacaste Conservation Area and Corcovado National Park; in Guatemala's Sierra Lacandon region in the Maya Biosphere and in the Pantanal of Brazil. All of which are home to the Baird's or Lowland tapir as well as hundreds of other species of fauna and flora. The goal is for all of our institutions to motivate people to act, and to change patterns of behavior that significantly affect the fate of ecosystem survival. The Center for Ecosystem Survival would like to promote, to the Tapir Specialist Group and to the participants of the International Tapir Symposium, a strategy for zoos, botanical gardens, aquariums, keepers, staff, the visiting public, school aged children, corporations and the private sector to become involved in direct action steps to maximize our efforts to preserve wildlife in wild places.

POSTER SESSION: BAIRD'S TAPIRS

Conserving tapirs (*Tapirus bairdii*) to Conserve "La Amistad" International Park, Costa Rica

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"La Amistad" International Park (LAIP), in Costa Rica and Panama, is the largest park in Costa Rica with 520,000 acres, and is very important for the regional biodiversity in both countries. The fact of finding tapir populations from 600 meter till 3,600 meters of altitude makes this park a keystone for biodiversity conservation. Nevertheless, due to the size and isolation of the park, along with little financial resources addressed towards its management, it is very hard to know precisely the condition of the ecosystem in the area. Culturally, Bribris and Cabecares indigenous communities formerly had access to those territories, and are currently living in the surroundings of the park. For these tribes, tapirs are considered a close relative and have a deep symbolic and sacred value. In previous times they had important hunting and holly areas for tapirs in the LAIP territories. For this reason, we will study the tapir ecology focusing on their abundance, food habits, home range and key potential areas for their survival in the park. Through this information, we aim to strengthen the management of the park, the consciousness of the dwellers in the area, and their participation in the solution of conservation issues. Conservation International and the Costa Rican Environmental Department (MINAE) fund this study.

Habitat Relationships and Population Estimation of Baird's Tapir: A Proposed Investigation

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Although the current range of Baird's tapir is highly fragmented, the species occupies a wide array of habitat types ranging from low-elevation tropical forests to high-elevation montane cloud forest. Most previous efforts to determine population abundance have been based on track count indices and are available only from low-elevation tropical forests. Furthermore, few quantified data are available regarding key habitat components within each occupied habitat type. We propose to obtain Baird's tapir population density estimates and examine key habitat components in three habitat types along the altitudinal gradient of the La Selva corridor on the Caribbean slope of Braulio Carrillo National Park, Costa Rica. Home range areas will be determined for six to ten tapirs in each of the three habitat types using GPS collars. We will examine key habitat components by comparing browse abundance and quality, dropped fruit abundance, and water availability within known home range areas to random areas. Population density estimates will be generated for each habitat type through mark-resight methods using automated camera systems and will be used to generate a stratified population abundance estimate for the study area. Results from this research will provide insight into specific resources that influence habitat quality for Baird's tapir and establish replicable methodology for estimating tapir populations.

Relative Abundance, Movements, Habitat Use and Principal Threats of Tapir (*Tapirus bairdii*) in Laguna Lachuá National Park, Guatemala

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The Danta or Tapir (*Tapirus bairdii*) is the largest wild mammal in Guatemala. The species inhabits non-disturbed forests and it is thought to be in danger of extinction mainly because of the loss and fragmentation of its habitat and by excessive human hunting pressure. Although Guatemala, Mexico and Belize comprise approximately 50% of the distribution of these animals, in Guatemala there has been no study that allows a clear view of the state of the populations and other essential ecological aspects for the development of a management plan. The Laguna Lachúa National Park, in the department of Alta Verapaz, Guatemala, is a substantial patch of forest of 14,000 ha that comprises several vegetation associations and harbors abundant creeks and flooded areas that are frequently utilized by tapirs. Thus, it is an ideal area for population studies of this species, since it could become a priority area for their conservation. The investigation is intended to determine the relative abundance, movement patterns, habitat use and principal threats in the region. It will also be utilized like a pilot study that will help to standardize the methodology so replicates of the study could be carried out in other areas with potential importance for the conservation of the species and to determine other priority actions of conservation in order to prevent their extinction.

Predation of *Tapirus bairdii* by *Puma concolor* and *Panthera onca* in two Biosphere Reserves, Chiapas, Mexico

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Few reports exist of predation of tapirs by jaguar or puma. This work documents the presence of these large mammals sharing the same sites in the Sierra Madre de Chiapas, with the goal of learning their feeding habits in El Triunfo y La Sepultura. In El Triunfo during 2001, 680.3 km of transects were traveled, we collected 2 fecal samples of jaguar, and 3 samples of puma. During 2002 in El Triunfo, 417.7 km were traveled; we collected 2 fecal samples of jaguar and 17 of puma. In La Sepultura, 150.75 km were traveled; we collected 18 fecal samples of jaguar and 10 of puma. To separate the components we used the method described in Korschgen (1948) and Chinchilla (1997), modified by Cruz (2001). The scientific collection of mammals at the IHNE was consulted to identify the components. According to the 2001 results, we obtained for the jaguar 14% of tapir in El Triunfo, a relative frequency (FA) of 0.33 and a relative biomass (BER) of 225 Kg. For the puma we obtained 12% of 0.19 (FA) of 1125 Kg (VER). For the jaguar in La Sepultura we obtained 17% and 225 Kg (BER). For the jaguar in 2002 in El Triunfo we obtained 25% (FA) of 0.5 and (BER) of 225 Kg. For the jaguar in La Sepultura we obtained 13% (FA) of 0.11 and (BER) de 450 Kg. For the puma we obtained 6% (FA) of 0.10 and (BER) of 225 Kg. No significant differences were found in the predation by these felids between years and reserves ($X^2 = 22$; gl = 2; $p < 0.05$). We found that the tapir appeared in an important manner in the diet of both felids, not as a common prey, however, somewhat as a medium presence.

Foraging Habits and Diet of *Tapirus bairdii* in the Sierra Madre of Chiapas, Mexico

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In the literature, the Central American tapir is considered a relevant species in the dynamics of tropical forests due to its possible affects through foraging, seed dispersal and predation. The objectives of this study were: (1) determine the foraging habits of the tapir; and (2) learn the diet of this specie in the Biosphere Reserves La Sepultura (REBISE) and El Triunfo (REBITRI). Between February 1998 and December 2002 we conducted counts of tapirs and tapir sign in 3,538.11 km traveled in 23 transects in both reserves. We collected 1,290 fecal samples and 337 samples of plants, fruits and seeds consumed by tapir. The diet of the tapir consisted of 98.6% leaves and stems and 1.4% of fruit (n=278 fecals). Of the plants collected, we identified 61 families, 59 genera and 84 species consumed by tapirs, including 11 new species reported for the tapir in Chiapas, Mexico.

Measurements and Physiologic Constants For a Juvenile Female *Tapirus bairdii* Before and During Its Stay in the Regional Zoo Miguel Álvarez del Toro, Tuxtla Gutiérrez, Chiapas, Mexico

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In April of 2001 the Zoológico Regional Miguel Álvarez del Toro (ZooMAT) received a female tapir (*Tapirus bairdii*) of approximately four months of age from the southern zone of Santa María Chimalapas, Oaxaca. A morphometric study and clinical inspection starting from age four months has provided information about the speed of growth in its first year of life, as well as reference ranges of its heart rate, respiratory rate and temperature. The measurements were taken with a flexible measuring tape, while vital signs were taken with a stethoscope and digital thermometer. The physiological data resulted in the following information: (1) respiratory rate: (21, 18 min.-24 max; n= 18), heart rate (67, 61 min.-71 max.; n= 18) and temperature (36.6, 36.3 min.-36.9 max.; n=11). For the measurements we obtained a rate of growth of 28.4 mm/month in the body measurements and 7.5 mm/month for the extremities. We observed a faster growth rate during the tapir's stay at ZooMAT, compared to the rate observed in the community.

Diet and Food Habits of Baird's Tapir in a Cloud Forest of Southeastern Mexico

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The diet and food habits of Baird´s tapir were studied for 10 months through fecal analysis (*N*= 97) and direct sightings in Polygon I of El Triunfo Biosphere Reserve, Chiapas, Mexico. The tapir diet was composed of fibers (50.6%), leaves (45.5%), and fruits (3.9%). The proportions of plant parts in the feces differed seasonally and monthly. The proportion of the three components in the feces was similar among transect lines and altitude ranges. Twenty-five species of 27 plant families consumed by Baird´s tapir were collected during the study. The most highly represented families were Solanaceae (13%), Rubiaceae (12%), Asteraceae (11%), Poaceae (5%), Cucurbitaceae (5%), Arecaceae (5%), Araliaceae (5%), Araceae (5%), which accounted for 61% of the total plant species. Nine of these plant families constitute new records for the Baird´s tapir diet (Actinidiaceae, Begoniaceae, Gesneriaceae, Papaveraceae, Pinaceae, Saurauiaceae, Scrophulariaceae, Smilacaceae, and Theaceae).

POSTER SESSION: LOWLAND TAPIRS

Assessment of the Level of Parasitism in *Tapirus terrestris* in Morro do Diabo State Park, São Paulo, Brazil

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The characteristics of a given parasite population result from host-parasite interactions and non-biotic habitat conditions. Therefore, parasite incidence or prevalence result from past and present microhabitat changes, local environment, density of host population, and profiles of host species. The purpose of this study is to assess the levels of parasitism in free-ranging Lowland tapir populations in Morro do Diabo State Park, Brazil. We analyzed 49 fecal samples collected from May to July, 2003. Three different techniques - flotation, MacMaster and sedimentation - were used for the analysis of the samples. The flotation technique resulted negative for 15 samples, sedimentation resulted negative for 5 samples, and MacMaster resulted negative for 7 samples. All techniques were positive for oocistys of *Eimeria* sp., tapeworm eggs, and larvae of strongylids and strongyloids. The flotation technique was positive for eggs of *Oxyuris* and strongylids. The sedimentation was positive for eggs of strongylids and strongyloids. The number of eggs per gram in the MacMaster technique was 50 at 400 for Strongylus. Given that 90% of the samples were positive for one or more parasite species, these results indicate human and domestic livestock pressure, leading to a high density of parasites in the environment.

Classificatory Systems of the Tapir (*Tapirus terrestris*) in Three Ethnic Groups of the Middle Caquetá River: Might There be Subspecies or Local Populations?

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As part of the project Indigenous Environmental Management in the Middle Caquetá River region, Colombian Amazon, several research projects have been carried out since the early 1990's, focusing on the use and management of wild fauna by local communities. Some of these projects are based on daily records of hunting, taken by the Indigenous hunters. One of the most frequently hunted species is the Tapir (*Tapirus terrestris*). For the Amazonian Indigenous communities, the tapir has a strong symbolic dimension. It is a highly respected species due to its human conception. Tapir populations are seen as "people" with their own social organization, their *malocas* (roundhouses) and a set of rules for their relations with the other beings of the forest. Amazonian communities harbor detailed knowledge about this species' anatomic characteristics, its habitat, distribution, feeding habits, reproductive and behavioral features. Classificatory systems shared by many ethnic groups suggest the existence of five types of tapir, with different characteristics regarding their origin, color, feeding habits, habitat, distribution, taste of the meat and even regarding their behavior when visiting the salt-licks. This information can give clues about the existence of subspecies or at least local populations.

Knowledge of the Natural History of the Tapir (*Tapirus terrestris*) by Three Ethnic Groups of the Middle Caquetá River Region, Colombian Amazon

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Indigenous communities' traditional knowledge of the tapir (*Tapirus terrestris*) is wide and includes detailed information on characteristics of the populations, anatomical and reproductive features (gestation periods, breeding times), social behavior, management regulations and consumption restrictions. Based on daily records of the consumption of this species, together with the recompilation of local knowledge of Andoke, Nonuya and Matapí ethnic groups in the middle and lower Caquetá River, a first approach to the annual cycle of the tapir was elaborated. This approach is built upon traditional ecological calendars that indicate seasonal availability of the fruits eaten by the tapir, seasonal habitat use - dependent on changes of the water level of the river, gestation and breeding times, and restrictions on meat consumption. This study is a contribution to the implementation of a participatory research strategy that allows a detailed monitoring of the species. Such a monitoring is a fundamental tool for the formulation of management plans and conservation strategies.

Priority Areas for Lowland Tapir Conservation in the Amazon and Orinoco Region, Colombia

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Tapirus terrestris is the species of the genus that has the widest distribution range of the three tapir species existing in Colombia. The IUCN lists this species as Vulnerable, due to hunting pressure and habitat fragmentation and degradation. Therefore, the National Program for the Conservation of the Genus *Tapirus* in Colombia was created in 2002. Regarding *T. terrestris*, the program proposes to focus on the definition of distribution areas, evaluation of habitat availability, and definition of areas of different antropic pressures. Those recommendations were taken into account for this research in the Colombian Amazon and Orinoco region, in order to identify priority areas for the conservation of the species in the region. The localities and distribution data were collected from literature, museum's catalogs and interviews with researchers and local people. Twenty-nine localities from the past and 39 current ones were used. The information was combined with ecosystem and forest areas maps to determine habitat availability. In the same way we defined areas of antropic pressure, according to hunting areas, indigenous and rural settlements. Finally, we analyzed the information using the GIS ArcView 3.2, to generate the priority areas for the conservation of *Tapirus terrestris*.

Status of the Lowland Tapir in French Guiana: Hunting Pressure and Threats on Habitats

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French Guiana, a French administrative unit in the Guiana shield, is covered by one of the largest remaining blocks of rainforest. However, until recently the country suffers of a very poor interest for the conservation of natural resources, with a small percentage of forest under strong protection (<3%), limited wildlife management, and no regulation of tapir hunting. Together with demographic expansion, threats on biodiversity are now growing dramatically, with hunting as major threat resulting in fauna depletion in large areas. The harvest was evaluated in 5 catchment's areas used by several communities on an 18-month period; it was very close if not beyond the recognized sustainable thresholds in 3 of them. Most of the biomass harvested is devoted to commerce; this highly lucrative activity strongly disorganizes the traditional share of space of the local communities. Although the overall habitat still has a rather favorable status, with a low level of fragmentation, logging activities in the North result of clearing of hundreds kilometers of tracks, providing easy and uncontrolled accesses for hunters to large areas of forest. Also, around 1,000 gold mining sites are widespread all over the country, and increase on a very diffuse and cryptic way to the pressure on the species, and also contribute to the interethnic stress. Our current efforts are (i) at the political and legal level, for recognition of right of use of areas claimed by local communities and revision of the status of the tapir; (ii) at the technical level, for a deeper assessment of the species status and development of GIS applications for a better management of forests dedicated to logging, allowing to design source-sink systems and refuges for the macro fauna.

Ethnozoology of Lowland Tapir (*Tapirus terrestris*) in Venezuela

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In order to investigate the relationship between local people and tapirs we are developing personal interviews to gather information about the uses of Lowland tapirs and their products (meat, bones, skin etc.). The implemented methodology consists in establishing conversation with local hunters and their families living inside tapir habitat. We have prepared color plates with pictures of different wildlife species (mammals and birds) so hunters can point out the species they hunt. Additionally, a literature review is being conducted in order to gather information of other areas of the country. Until October 2003, we have interviewed 40 people in three different places of Venezuela (Aragua, Monagas and Yaracuy States). Tapir hunting and different uses, such as subsistence, medicinal and mythological, have been recorded. By December 2003 we hope to have 100 interviews to develop a final analysis.

Captive Management of *Tapirus terrestris* at the Chorros de Milla Park Zoo, Mérida, Venezuela

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"Chorros de Milla" Park Zoo is a Venezuelan governmental institution administered by CORMETUR (the regional tourism corporation). It is located to the Northeast of Mérida city, occupying an area of 12 ha in a small valley crossed by the Milla River to 1,850 m.a.s.l. During the last 50 years, the Milla River presented two exceptional floods that forced the construction of two dikes to mitigate the force of the flow during the rainy season. One of these dikes was used to establish an enclosure of 1,400 m² for the Lowland tapirs *(Tapirus terrestris)*. In 1988, we obtained the first tapir from the Caricuao Park Zoo (Caracas), a juvenile male named "Pijiguao". Since then, we have maintained 5 tapirs in the park (2 males and 3 females) although always a single breeding couple (M, F) at the same time. Between 1990 and 1995, two females brought from Las Delicias Park Zoo (Maracay, Aragua State) died; one due to *anaplasmosis* and the other one drowned during a flood of the river. After this event, modifications were made in the enclosure in order to guarantee the life of the animals. Thanks to the inter-institutional cooperation, in 2000, we received a juvenile female named "Simona", brought from Bararida Park Zoo and Botanical Garden (Barquisimeto, Lara State). "Simona" and "Pijiguao" are currently the breeding tapir pair in the park. In 2002, we achieved the first species-breeding event: a male named "Sebastian". The tapir is one of the conservation focal species at the "Chorros de Milla" Park Zoo by means of an integrated program of research, breeding and environmental education.

POSTER SESSION: MALAY TAPIRS

Capture Methods of Malay Tapirs

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In conjunction with a research project on Malay tapirs, *Tapirus indicus*, various methods have been tested for trapping Malay tapirs that are subsequently fitted with radio-transmitters. The project was initiated in Krau Wildlife Reserve Malaysia in August 2002. Three methods have been used: pitfalls, cage-traps and dart shooting from a high platform. Four pitfalls and five cage-traps were constructed nearby saltlicks and trails frequently used by tapirs. Darting was attempted from high-hides constructed adjacent to salt licks. Although we managed to capture a single individual in a pitfall the method is not suitable for capturing Malay tapirs. The activities necessary to construct a pitfall are very invasive and in 5 full trapping months we only managed to get a single tapir. After the construction of a pitfall there is latency of 11-20 days before a tapir is recorded from the area again and even longer for any animals to return to a capture site after a conspecific has been captured. Subsequently, we tested darting from high-hides but given that the density of Malay tapirs is very low, visit frequency at congregation points is too long and consequently the cost incurred by mixing expensive drugs that could not be reused was too high. Subsequently, we designed an eighteen piece cage-traps (8 wall pieces, 2 trap-doors, 4 horizontal bars for securing walls, 4 vertical rails for securing trap doors). In order to reduce both weight and cost of the construction traps were made in ½ inch hollow steel bars. They measure 4x1.5x1.8 meters with a weight of approximately 75 kg each. A team of four can assemble/dismantle a trap in less than an hour and consequently they are extremely non-invasive and much more versatile than pitfalls. Cage-traps were baited with fruit and salt. Bait was also put out prior to deploying traps in order to habituate animals to a new scenario.

Fitting Radio Transmitter on a Malay Tapir Without the Use of Anesthetics

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A male Malay tapir (*Tapirus indicus*) was caught in a cage-trap on 27th October 2003. Since there were no veterinarians available with the necessary anesthetics we decided to try to fit a radio-transmitter without anesthetizing it. In order to avoid inducing further stress on the animal the trap was covered with black cotton fabric and the animal was fed extensively with some of its preferred scrubs and leaves. Subsequently, when the animal had become docile and appeared calm, a radio-collar was successfully fitted onto the animal through the bars of the cage. During the whole procedure the animal remained calm and did not show any signs of unease. Subsequently, it was released and monitored 24 hours a day for 5 days. When the cage was opened the animal did not leave it immediately and was still inside the cage the following morning. It is not certain whether or not radio-collars can normally be fitted onto Malay tapirs that easy or if the docile behavior of the animal was evidence of hyper stress.

An Investigation of Factors That Potentially Affect Eye Health of the Malay Tapir - *Tapirus indicus* - In Captivity

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Taronga Zoo in Sydney, Australia, has housed Malay tapir (*Tapirus indicus*) since 1996. To date four Malay tapirs have been housed, three from overseas institutions and one calf born at Taronga Zoo. Since arriving in Australia, the Malay tapirs have had multiple medical problems including ulceration of oral mucous membranes, skin irritations on their backs, feet problems and eye problems. Eye conditions have ranged from intermittent corneal clouding to corneal ulceration, which progressed on three occasions to rupture of the cornea. This paper will discuss the health problems Taronga Zoo has encountered with Malay tapir and the steps taken to rectify these problems. In order to assess how common the health problems experienced with this species were, a survey was sent out to forty-five zoos worldwide, which hold Malay tapir. Twenty-two out of forty five zoos responded. Of the twenty-two respondents, sixteen reported eye problems. This paper will also discuss health problems encountered worldwide in Malay tapir, and will indicate that further research in this area is needed.

POSTER SESSION: MOUNTAIN TAPIRS

Clinical and Biological Study of a Dead Mountain Tapir (*Tapirus pinchaque*) in Cali Zoological Park: A Case Report.

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A clinical and biological study was performed at Cali Zoological Park, using a young wild Mountain tapir (*Tapirus pinchaque*) dead in Puracé National Park, southwestern Colombia, in April 2003. The animal was found by park officials near a trail, and it was showing a wounded rear leg. Although the officials tried to help, the handling of the animal was inadequate and zoo veterinarians that assisted the animal in the final days could not do much to avoid its death after a week of stressful conditions. After the animal's death, the animal was sent to Cali Zoo to be used as a study object. Digestive, reproductive, circulatory and nervous systems were dissected. The skin was mounted to be exhibited in local natural history museums. External and internal parasites were collected and identified. All the information gathered and the experience and knowledge acquired by the zoo veterinarians and biologists will be of vital importance for future management of Mountain tapirs in the wild or in captivity in Colombia.

Mountain Tapir (*Tapirus pinchaque*) - Human Conflict and Priority Areas for Conservation in the Central Andes of Colombia

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A series of biogeographical analyses were carried out using a geographic information system (ArcView 3.2 GIS) to determine conflict and priority areas for Mountain tapir (*Tapirus pinchaque)* conservation in the Central Andes of Colombia. The Central Andes were analyzed with respect to the representation of several landscape types, tapir's habitat and the existing protected areas network. More specifically, coarse-scale maps of vegetation cover (WWF), transport network (DCW), digital elevation model (USGS), political boundary and municipalities (IGAC), human population density (DANE), protected areas (UASPNN), field data about tapir distribution and five human-caused threats to tapirs, were used in overlay operations to build a model of the difficulty of accessibility for humans to each point and to identify human tapir conflict areas. Two important conflict zones were identified in northern Purace National Park and southern Los Nevados National Park. An important zone between Las Hermosas and Nevado del Huila National Parks, was identified as a potential conservation area for tapirs. The maps and information derived from this study can be useful for environmental authorities in the establishment of regional systems of protected areas (SIRAPs), to create new protected areas at the regional and municipal levels, or to justify the establishment of corridors between national parks.

Potential Conservation Areas and Mountain Tapir (*Tapirus pinchaque*) Conflict Zones in the Colombian Coffee Growing Region

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We carried out an analysis of critical zones for the Mountain tapir (*Tapirus pinchaque*) in the northern region of the species distribution in the central Andes of Colombia, in the coffee growing region, were there is an important population of Mountain tapirs. The analysis, using a GIS (ArcView 3.2) as a tool, used several maps from different sources, such as protected areas, forest cover, topographical maps, roads, rivers, types of pressure and population density tables by municipality. We took into account two main criteria. First, an accessibility model, which comprises topographical slope, distance to populated places, roads and rivers, assuming that less accessible zones, were there are tapirs, are potential conservation places. The second criteria was a conflict model, which identifies the kind of pressure by municipality and human population density, in tapir distribution areas. This analysis is a very useful tool to planning tapir habitat restoration, and to design new protected areas in the region. Besides, it can be used as a contribution to the inter-institutional effort to establish a regional protected area system (SIRAP) in the Colombian coffee growing region, which comprises four states where there are four million people.

POSTER SESSION: GENERAL TOPICS

Promoting Knowledge and Discussion About Tapir Ecology and Conservation in Colombia

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The Colombian Tapir Network (CTN) was formally created in November 2001 by a small group of eight people (biologists, veterinarians and conservationists) interested in tapir conservation in Colombia, the only place that has all the Neotropical tapir species. After its creation, the CTN has published in their web page, information in Spanish, about tapir distribution, ecology, *ex-situ* and *in-situ* research and conservation projects in Colombia. Its members, currently 39 from different institutions, have been discussing, suggesting and promoting actions and policies for the conservation and recovery of Colombian tapir populations. Many of them, participated in the discussion and compilation of The National Program for Tapir Conservation and Recovery In Colombia, and have been advising students through an e-mail discussion list. Currently, our immediate goals are to create a national studbook for tapirs, to promote tapir research in zoos, and to help in the implementation of The National Program for Tapir Conservation and Recovery In Colombia. The network aims to facilitate communication among people and institutions interested in tapir conservation and research in Colombia.

TSG COMMITTEES REPORTS

The Tapir Specialist Group Zoo Committee

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The IUCN/SSC TSG Zoo Committee was initiated during the First International Tapir Symposium in 2001. Committee members consisted of representatives from both *in-situ* and *ex-situ* tapir conservation. A number of goals were assigned to the group - some of which have been or are in the process of being achieved. Recently, however, it has been felt by some members of the committee that some of these goals could perhaps be changed and new ones initiated. Therefore a workshop will be held during the second symposium to better ascertain what the TSG and others want and need from this committee. The presentation will report on the achievements to date of the Zoo Committee and also on the outcome of the workshop to ascertain its future goals.

The Tapir Specialist Group Veterinary Committee

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The IUCN/SSC TSG Veterinary Committee was created during the First International Tapir Symposium held in November 2001 in San José, Costa Rica. The main goal of this committee is to identify the role of the veterinarians in multidisciplinary teams involved in tapir conservation projects. With the participation of a number of veterinarians from Latin America and United States, this committee launched a series of activities, such as the compilation of bibliographic materials based on the experience of each professional working on any of the tapir species. The objective is to put all the information together in order to standardize field methodologies that guarantee that health studies will be effectively conducted and for the benefit of tapir species worldwide. The role of the veterinarian in the conservation of tapirs must be focused on solving the problems of capture and immobilization, as well as investigating the possible problems during the procedures. The role of the veterinarian also includes the diagnosis and identification of infectious and non-infectious diseases that can potentially affect individuals and populations. Additionally, it is also the role of the veterinarian to establish and implement protocols for the collection of biological samples to facilitate the assessment of the health status of the animals. In short, the interaction between the veterinarian and field projects is singular, and the presence of the veterinarian assures the evaluation of all the physiological, metabolic and biomedical parameters directly or indirectly involved with the survival of tapirs.

KEYNOTE SPEAKERS

Are Tapirs Good Flagship Species for Wildlife Conservation?

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The term "flagship species" is routinely used with regard to the use of selected plants and animals as foci for conservation programs, as are other terms such as "charismatic mega-vertebrate", "indicator species" and "keystone species". The creatures in question possess some special characteristics or innate appeal that apparently makes them desirable symbols for large-scale efforts that may help ensure the survival of myriad other species. This presentation examines biological and ecological characteristics of tapirs that place them in one or more of the categories mentioned above. It also seeks to determine how tapirs can best be utilized in ongoing efforts to protect other threatened species and habitats throughout their combined ranges. The presentation concludes with a look at how the Houston Zoo is beginning to use tapirs as the principal focus of its overall wildlife conservation efforts.

The TSG Conservation Fund: History and 2003 Report

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The Tapir Specialist Group Conservation Fund (TSGCF) was established in 2003 as a vehicle to raise and contribute funds towards tapir conservation initiatives. The organizations involved in the management of the TSGCF are the Tapir Specialist Group (TSG), the Houston Zoological Gardens, the Tapir Preservation Fund (TPF), the American Zoo and Aquarium Association (AZA) Tapir Taxon Advisory Group (TAG), and the European Association of Zoos and Aquaria (EAZA) Tapir Taxon Advisory Group (TAG), which are today the key groups working on coordinating and implementing tapir research, conservation and management programs. The money in this Fund consists of personal donations from tapir researchers, supporters and enthusiasts worldwide, as well as contributions from conservation organizations and tapir holding institutions and zoos. A TSGCF committee reviews each application submitted and decides to fund projects based on the merits of each proposal, significance for tapir conservation, and several other criteria. Grants are given to projects targeted at research with wild and/or captive tapirs; projects targeted at restoration, protection and conservation of tapir habitat in South and Central America and Southeast Asia; education and capacity-building programs for local communities within the tapirs' range in South and Central America, and Southeast Asia; and implementation of the recommendations of the IUCN/SSC *Tapir Status Survey and Conservation Action Plan*. The proposals must be cooperative in nature and have matching funds. The proposal must be scientifically significant and sound, logistically feasible, must have a high probability of success and clearly contribute to the conservation of tapirs and their remaining habitats. During the 2003 funding cycle, the TSG Conservation Fund received seven proposals and three of those were selected for funding.

Estimating the Maturity of Tapirs Using Skeletal and Dental Indicators

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Many demographic and morphological questions require knowledge about the relative maturity of individual animals. For example, sexual dimorphism in size or shape cannot be adequately addressed unless one accounts for changes in shape or size related to increasing maturity. Unfortunately, most animals, including tapirs, lack longitudinal data documenting sequential changes over the course of an individual's life, and ontogenetic sequences are necessarily based on cross-sectional samples. Although this is usually accomplished by ordering samples into a series based on a criterion such as size, it is clear that variation in size, or any single criterion, can distort patterns of sequence variation and result in misleading maturity estimates. Here, sequences are discovered by analyzing a matrix of scored dental and skeletal characters using a parsimony algorithm (PAUP). Results comprise multiple sequences that can be diagrammed as reticulating networks leading from the least to the most mature individuals. Not only can relative maturity be estimated from these results, but sequence variation can also be compared between species, potentially indicating heterochronic changes in the evolution of *Tapirus*.

One Health - A Broader Approach to Conservation

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As people and their domestic animals penetrate once pristine areas and expand their range and intensity of activities around the globe, the risk of transmitting deadly diseases to wildlife increases significantly. Today, infectious and noninfectious diseases of humans, domestic animals and wildlife are being recognized as an increasing challenge to biodiversity conservation, as well as the efforts to improve the quality of life for humans. Although wildlife diseases play important ecological roles, human activities in many cases have imbalanced these systems with devastating consequences including both gradual and catastrophic losses of wildlife populations. Many factors affecting health are still poorly understood, and yet, conservation and wildlife management decisions are often made without this critical information. The critical edge - where the health of wildlife, domestic animals, and humans meld in to be best addressed as "one health" - exists at the borders of most parks and protected areas of the world. The WCS Field Veterinary Program, the IUCN Veterinary Specialist Group, as well as growing ranks of wildlife health professionals around the world are using collaborative approaches to address the complexities of maintaining ecosystem health. Working with in-country wildlife experts, government agencies and public health officers, this new approach focuses on building local capacity, conducting and support health investigations, advising on policies, and compiling preventive guidelines to reduce disease transmission between wildlife, humans and their domestic animals.

IDEA WILD: Supporting the Heroes of the World

Wally van Sickle

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IDEA WILD is a non-profit organization from the United States working to minimize the loss of biodiversity by empowering people on the front lines of conservation in Latin America with equipment and supplies. We provide binoculars, global positioning systems, mist nets, telemetry, computers, cameras, climbing ropes etc. to biologists and educators working to conserve biodiversity. In ten years we have provided equipment to over 3,000 people in 37 countries. Our slide presentation will introduce you to many of these projects and explain the application process. If you have ever been short of equipment for your conservation research or education efforts, or know someone who has, you do not want to miss this one!

WORKSHOP 1: Tapir Genetics: A Concerted Effort

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The absence of genetic data in tapir literature is conspicuous. Important questions pertaining to the number of species, hybridization and location of hybrid zones, population histories, and structuring of genetic diversity at the continent scale, remain unanswered. The common theme underlying these issues is the fact that they can all be tackled using modern molecular population genetics techniques based on DNA markers. Yet, more importantly, answering these questions would increase our understanding of the evolution of this fantastic group, as well as providing valuable information to focus the conservation effort for the four species of tapirs. Answering these questions usually poses serious difficulties. On one hand, field biologists do not usually have the proper molecular training, or do not have the proper infrastructure readily available for the required analysis. On the other, molecular ecologists do not usually have the field expertise or readily access to samples, especially for studies at such scales. More restrictive still, is the fact that such tasks incur huge financial expenses, and are typically hard to fund. In spite of this, we believe that these questions warrant attention, and should be answered as soon as possible. In this light, we would like to propose a concerted effort to undertake this job, where field biologists would work in conjunction with molecular ecology labs within Latin America, Southeast Asia, North America and Europe. Field biologists would input both samples from the field and invaluable ecological data, while molecular ecologist would process the samples and collect all the molecular data necessary to answer these and other questions. Additionally, funding for cooperation projects of this scale and scope are easier to find then for smaller, more punctual, projects. Finally, once all the data is collected, we propose the realization of a workshop to physically bring together both the field and lab data, and perform a massive effort to answer as many questions as possible. In conclusion, the main objective of this project, aside from obtaining invaluable genetic data, is to establish a network between field biologists and molecular ecologists so that questions of this nature can be answered more quickly and efficiently.

WORKSHOP 2: Tapir Husbandry and Captive Management

The American Zoo and Aquarium Association (AZA) Tapir Taxon Advisory Group (TAG) Action Plan

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The AZA Tapir TAG, like other Taxon Advisory Groups, is slowly incorporating more *in-situ* initiatives into its long-range plans. While the first priority is to breed and maintain tapirs in captivity, these goals are inextricably linked to field conservation programs. This presentation will focus on how the Tapir TAG can become even more effective in supporting international conservation programs through partnerships, public awareness campaigns and fundraising techniques. Citing past programs and future initiatives the authors will propose a framework for the future that will put the "action" back into zoo based Action Plans.

2003 Management Plans for Captive Tapirs in North America

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This year the American Zoo and Aquarium Association (AZA) Tapir Taxon Advisory Group (TAG) developed a Regional Collection Plan (RCP) and Husbandry Standards for two species of tapirs maintained by zoos in North America. The RCP has determined that spaces are only present for two of the four species of tapirs, Baird's and Malay tapirs, currently maintained in AZA zoos. Due to space limitations and, in the case of the Mountain tapir, severe inbreeding without the likelihood of additional founders from abroad, the AZA Tapir TAG recommends in its RCP that both Lowland and Mountain tapirs be phased out of AZA zoos through attrition. Target populations for Baird's and Lowland tapirs species are set at a minimum of at least 75 individuals for each species. The Tapir TAG has also developed husbandry standards for zoos to use when acquiring captive tapirs. More rigorous than older minimum husbandry guidelines, these standards contain the latest (2003) information on medical, dietary and enclosure needs of tapirs and should be of great use to zoos in all parts of the world that keep tapirs.

The European Association of Zoos and Aquaria (EAZA) Tapir Taxon Advisory Group (TAG) - A Report

Bengt Holst

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The EAZA Tapir TAG had its latest meeting in Leipzig, Germany, in September 2003. Species coordinators gave their annual reports, and management problems as well as research and conservation issues were discussed. Fortunately there is a growing tendency among European zoos to take active part in field projects, and a few of these were presented during the meeting. Furthermore management problems are identified and addressed by the species coordinators, and action is taken. This has resulted in several surveys on for example the distribution of TB among tapirs and other similar problems. The EAZA Tapir TAG recommends zoos to get more involved in *in-situ* conservation projects and has given examples of how zoos can benefit from such a co-operation.

Tapirs and Panama, from a Captive Perspective

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This presentation will begin with a short history of tapirs (local name, macho de monte) in captivity in Panama. Beginning in 1990, when former General Noriega collected tapirs at his private zoo in La Escondida, the author will recount the significant developments over the past thirteen years that raised the awareness for the conservation of tapirs. Based on the developments and progress to date, the presentation will propose future initiatives to elevate the tapir to flagship status and insure its existence in the wild.

Building a New Exhibit for the "Macho de Monte" at the Summit Park, Republic of Panama

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During the month of January 2003 I had the opportunity to travel to Panama with the organizers of the Tapir Symposium and during this trip; we had a meeting with the mayor of Panama. During this meeting, we informed him about the Second International Tapir Symposium and the tapir exhibit at the Summit Park. In order to ensure the welfare of the 4.3 Baird's tapirs (*Tapirus bairdi)* at the Summit Park, the Mayor of Panama requested the building a new exhibit. Houston Zoo Director, agreed to coordinate this project and have his staff participate in the construction. This was the beginning of a cooperative partnership between the Houston Zoo and the Municipality of Panama. On April 2003, I returned to Panama with Jim Brighton, an associate from PJA Landscape Architects who specializes in zoo design. Along with Charles Forester, a field biologist from Corcovado National Park in Costa Rica, and the Houston Zoo's maintenance supervisor we set to work. We combined our expertise to design this new exhibit, which, when finished will be the largest tapir exhibit in the world. Two more trips were scheduled in September and December to begin construction. This time, the Houston Zoo maintenance department was involved. The team included a welder, plumber, horticulturist, and supervisor. Most of our maintenance staff speaks Spanish, which was a big help in working with the Summit Park staff. Support for the Summit Park project is part of the Houston Zoo's Naturally Wild Conservation Program for the year 2003. It also offers an opportunity for Houston Zoo's non-animal care staff to be directly involved in conservation projects.

Hormonal and Ultrasonography Studies during the Pregnancy of Lowland Tapir

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Serum samples were collected monthly as from April 2002 from a 2-year-old female Tapirus terrestris. The animal had been previously trained through operant conditioning in order to collaborate in the different medical procedures. Samples were collected to characterize Progesterone and Estrogens patterns during the oestrus cycle. Four months after starting the study, an increase of Progesterone concentrations (2.95ng/ml) was detected, higher than the initial value (0.78ng/ml). The following samples were performed in order to determine if the female was pregnant. It was confirmed in September 2002. The minimum concentrations of Progesterone were 2.67ng/ml during early gestation and the maximum concentrations to date (October 2003) were 22ng/ml ten days before birth. Estrogens concentrations had a minimum value of 14pg/ml early in gestation and a maximum value of 34.6pg/ml previous birth. The first ultrasonography register was conducted through the transrectal method using a transvaginal transducer (5MHz). Fetal images were detected, confirming the initial diagnosis of pregnancy. The following studies were carried out monthly by transabdominal images with a transducer of 5 and 3.5MHz. Fetus viability was registered through heart beat frequency. The tapir's baby, a male, was born on October 19th. The body weight was 8.8kg (19.5 pounds).

WORKSHOP 3: Action Planning for Tapir Conservation

National Program for Tapir Recovery and Conservation in Colombia

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All three species of New World tapirs are present in Colombia: Baird's tapir (*Tapirus bairdii*), Mountain tapir (*T. pinchaque*) and Lowland tapir (*T. terrestris*). Both *T. bairdii* and *T. pinchaque* are endangered and *T. terrestris* is vulnerable, according to the IUCN Red List. In year 2002, a National Program for Tapir Recovery and Conservation in Colombia was designed under a joint effort of the Colombian Ministry of Environment and Institute of Natural Sciences of National University of Colombia. A preliminary assessment of tapir status in Colombia was carried out based on distribution records from a national survey, museum collections, and field data, as well as a general view of current habitat availability, presence/absence of tapirs in current protected areas, and identification of main threats. A working document containing the above information as well as a proposed recovery and conservation program was discussed at a national workshop held on October 2002 at Otún-Quimbaya Flora and Fauna Sanctuary. Regional environmental agencies, national park representatives, research institutes, universities, zoos, non-governmental organizations, national and international researchers attended the workshop and discussed the proposed program for tapir conservation. A revised version of the program for tapir recovery and conservation resulted after incorporating input from the workshop. Implementation of the program is planned through local and regional projects.

Mexico's National Plan for Tapir Conservation and Recovery

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Mexico's National Committee for Tapir Conservation and Recovery (CTCR) was created in 2001 to develop an action plan for Baird's tapir (*Tapirus bairdii*) in the country. This committee is supported by the Ministry of Environment and Natural Resources (SEMARNAT), and it is currently formed by 20 active members working on different aspects of tapir biology and conservation. The action plan contains a compilation of the available information on the natural history, ecology, and management of this species in Mexico, as well as a description of the actions needed to improve the status of local tapir populations. Specific actions include: 1) Protection and management of remaining habitat through the improvement of productivity and economic incentives in surrounding agricultural areas, 2.) Creation and maintenance of corridors between extensive forest fragments containing tapir populations, 3.) Promotion of hunting regulation, ecotourism, and environmental education programs in communities adjacent to areas where tapir populations exist, 4.) Development of research projects on the distribution, abundance, health, genetic viability, and impact of human activities on tapir populations, 5.) Encouragement of captive breeding programs for education and research, and 6.) Personnel training and improvement of access to scientific information.

Managing the Human Animal: CBSG's Population and Habitat Viability Assessment (PHVA) Workshop Process for Species Action Planning

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Managing an endangered species is an extremely complex conservation problem. It requires a coalescence of expertise from different professions and sectors, an exchange of knowledge and technology, a building of consensus around threats and solutions, and a mobilization of resources. The CBSG PHVA workshop process balances the need to integrate information necessary for evaluating alternative species conservation strategies with the need to integrate, or at least connect, individuals from different disciplines and backgrounds that are centrally concerned with the species of interest. This is done with the hope that some realignment of priorities among individual stakeholder groups will result to take into account the needs, views and initiatives of other groups. Central to this process is the use of *Vortex*, a simulation model of wildlife population dynamics that provides a tangible focus for quantitative evaluation of conservation options for a species and a vehicle for integrating diverse species biological and human sociological data. Of course, as the diversity of both information and stakeholders increases, so does the challenges of facilitating effective integration. However, CBSG has gone further than any other conservation organization in forging collaborations at multiple levels and at building understanding of the processes required to facilitate such collaborations.

Malay Tapir Workshop in Malaysia

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A Malay Tapir Workshop was held in Krau Wildlife Reserve outside Kuala Lumpur from 12 to 16 August 2003. The purpose of the workshop was to gather existing data about Malay tapir distribution and threats in all its range countries in order to be able to develop a conservation strategy for the species based on hard-core data instead of gut feelings. The workshop was organized by the IUCN/SSC Tapir Specialist Group together with the European Association of Zoos and Aquaria (EAZA) Tapir Taxon Advisory Group (TAG) and the Department of Wildlife and National Parks (DWNP), Malaysia, and 35 participants from 7 different countries attended the workshop. In order to secure an organized approach to the problem and a realistic conservation plan as the output the workshop was organized using a Population and Habitat Viability Assessment (PHVA) format, and two facilitators from the IUCN/SSC Conservation Breeding Specialist Group (CBSG) were invited to run the workshop. The workshop participants were divided into four groups each looking into a specific topic concerning Malay tapir conservation and analyzed that specific part. Integration of the different approaches was achieved through regular plenary sessions where data and analyses were presented and discussed. One of the groups did a specific modeling using the VORTEX simulation program. Data from the other groups were entered into the program, and simulations were conducted in order to identify the relative impact of different factors on Malay tapir conservation. The results from the workshop will be published in a workshop report and will provide the basis for an official TSG Malay Tapir Conservation Action Plan.

WORKSHOP 4: Fundraising

Practical Ideas and Useful Tips to Raise Funds for Tapir Conservation Projects

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Most researchers spend a good part of their time and energy working to raise funds for their conservation projects and activities. Fundraising is not an easy job and requires skills, and most importantly, patience and perseverance. Our main goal is to provide the audience with practical ideas and useful tips to raise funds for tapir conservation projects. We will be discussing the different types of fundraising and the different types of donors, how to write successful proposals, what steps your organization needs to take before approaching donors, how to conduct research in order to find the most receptive donors, and how to cultivate your donors. Beginning and experienced fundraisers will benefit from this workshop to help prepare themselves and their organizations to seek grants.

Web Design as Conservation: Marketing and Fundraising Strategies for the New TSG Website and Conservation Fund

Gilia Angell

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The World Wide Web can be compared to the research and conservation movements in the world in that both are vast, with countless problems to solve, and both harness emerging technologies to aid in their evolution. Whether the task is to sell books or save habitat and endangered animals, Web design and conservation rely on human creativity, usability, and communication to succeed. 1.) Definition of usability in context of Web Design. 2.) Analogy of speed comparing the relative speed news takes to travel in the information age. 3.) Adaptation to changing environments. Sociology, psychology and principles of design contribute to a successful website, or research project, by maintaining a human connection to a capitalistic or scientific enterprise. Case Studies: What works and what does not; designing a website to meet the needs of those working in the field and those ready to give. Use Cases: 1.) Online retailer Amazon.com; 2.) Websites from high profile NGOs; 3.) Other non-profit organizations TBD. The TSG Website: A walk through a prototype of the new TSG website demonstrating how usability, design and marketing principles used in the retail world can be applied to the nonprofit, and ultimately to the scientists themselves, in their quest to fund their projects. Concluding remarks will include a discussion of emerging technologies and what this could look like in 20 years.

TSG PLANS FOR ACTION - 2004/2005

GOAL 1 **To have National Action Plans for tapir conservation and management in all the tapir range countries.**

ACTION 1 Identify TSG Members (appoint new members if necessary) to be the TSG Country Coordinators, who will be responsible for coordinating the development of the National Action Plan in each tapir range country in Central and South America, and Southeast Asia.

Time 4 months
Cost nil
Responsibility TSG Chair (Patrícia Medici)
Collaborators TSG Species Coordinators (Denis Alexander Torres, Emilio Constantino, Eduardo J. Naranjo Piñera, and Carl Traeholt), and TSG Membership
Indicators TSG Country Coordinators have been identified.

ACTION 2 Establish a TSG Action Planning Committee formed by the TSG Chair, TSG Deputy-Chair, TSG Species Coordinators, TSG Country Coordinators, and other key members.

Time 4 months
Cost nil
Responsibility TSG Chair (Patrícia Medici)
Indicators TSG Action Planning Committee has been established.

ACTION 3 Elaborate Guidelines for the Development of National Action Plans. Distribute document to all TSG Country Coordinators in Central and South America, and Southeast Asia.

Time 8 months
Cost nil (electronic distribution)
Responsibility Olga L. Montenegro (Colombia)
Collaborators TSG Chair (Patrícia Medici), and TSG Action Planning Committee
Indicators Guidelines have been elaborated and distributed to all TSG Country Coordinators.

ACTION 4 Establish Regional Tapir Action Planning Committees to work on the development of National Action Plans for Tapir Conservation and Management in each tapir range country in Central and South America, and Southeast Asia.

Time 8-10 months
Cost nil
Responsibility TSG Country Coordinators
Collaborators TSG Chair (Patrícia Medici), and TSG Species Coordinators (Denis Alexander Torres, Emilio Constantino, Eduardo J. Naranjo Piñera, and Carl Traeholt)
Indicators Regional Tapir Action Planning Committees have been established.

ACTION 5 TSG Country Coordinators compile a directory of all key people and organizations directly or indirectly involved in tapir conservation and management within their countries (researchers, governmental and non-governmental organizations, universities, zoological institutions, community organizations etc).

Time 8-10 months
Cost nil
Responsibility TSG Country Coordinators
Collaborators TSG Species Coordinators (Denis Alexander Torres, Emilio Constantino, Eduardo J. Naranjo Piñera, and Carl Traeholt), and TSG Membership
Indicators Directories of key people and organizations per country have been compiled.

ACTION 6 TSG Country Coordinators send questionnaires to all key people and organizations directly or indirectly involved in tapir conservation and management within their countries (researchers, governmental and non-governmental organizations, universities, zoological institutions, community organizations etc). Questionnaires will include questions about tapir status, distribution, threats etc. Questionnaire templates will be provided in the Guidelines for the Development of National Action Plans (See Action 3). The information gathered through this initial survey will be used to draw up preliminary documents for each country, which will be presented and discussed during the regional action planning meetings.

Time	10 months to send the questionnaires / 14 months to receive answers, compile the information and draw up and distribute the preliminary document
Cost	nil (electronic query)
Responsibility	TSG Country Coordinators
Collaborators	TSG Species Coordinators (Denis Alexander Torres, Emilio Constantino, Eduardo J. Naranjo Piñera, and Carl Traeholt), and TSG Action Planning Committee
Indicators	Questionnaires have been sent, responses have been received, and preliminary document has been produced and distributed to all members of the Regional Tapir Action Planning Committee.

ACTION 7 Organize and conduct Regional Action Planning Meetings in each tapir range country in Central and South America, and Southeast Asia. The objective of these meetings is to discuss, improve and prioritize the preliminary action planning documents, and produce the first drafts of the National Action Plans for Tapir Conservation and Management.

Time	20 months
Cost	To be estimated on a country-basis
Responsibility	TSG Country Coordinators
Collaborators	TSG Species Coordinators (Denis Alexander Torres, Emilio Constantino, Eduardo J. Naranjo Piñera, and Carl Traeholt), and TSG Action Planning Committee
Indicators	The meetings have been conducted, and the first drafts of the National Action Plans for Tapir Conservation and Management for each tapir range country in Central and South America, and Southeast Asia have been produced and distributed for final revisions.

ACTION 8 Elaborate the final version of the National Action Plan for Tapir Conservation and Management in each tapir range country in Central and South America, and Southeast Asia.

Time	24 months
Cost	nil
Responsibility	TSG Country Coordinators
Collaborators	TSG Species Coordinators (Denis Alexander Torres, Emilio Constantino, Eduardo J. Naranjo Piñera, and Carl Traeholt), and TSG Action Planning Committee
Indicators	The final versions of the National Action Plans for Tapir Conservation and Management for each tapir range country in Central and South America, and Southeast Asia have been produced, distributed to all interested parties, and made available for Species Action Plans. Final versions of the National Action Plans will be presented during the Third International Tapir Symposium in 2006.

ACTION 9 Finalize and distribute the Malay Tapir Action Plan developed during the Malay Tapir Population and Habitat Viability Assessment (PHVA) held in Malaysia in August 2003.

Time	3-4 months
Cost	Printing and mailing costs
Responsibility	TSG Chair (Patrícia Medici)
Collaborators	EAZA Tapir TAG Chair (Bengt Holst), TSG Malay Tapir Coordinator (Carl Traeholt), IUCN/SSC Conservation Breeding Specialist Group (Philip S. Miller), and TSG Members in Southeast Asia
Indicators	Malay Tapir Action Plan has been published and distributed to all interested parties in Southeast Asia, and made available for individual National Action Plans. Malay Tapir Action Plan is available in downloadable format from the TSG Website.

ACTION 10 Conduct a Population and Habitat Viability Assessment (PHVA) Workshop for Mountain Tapirs - *Tapirus pinchaque* - with participants from all range countries (Colombia, Ecuador, and Peru). Venue: Cali, Colombia. Date: October 2004.

Time	12 months
Cost	US$20,000
Responsibility	TSG Chair (Patrícia Medici), and TSG Mountain Tapir Coordinator (Emilio Constantino)
Collaborators	Red Danta de Colombia, local conservation organizations and researchers, IUCN/SSC Conservation Breeding Specialist Group (CBSG), AZA Tapir TAG, and EAZA Tapir TAG
Indicators	PHVA workshop has been conducted, Mountain Tapir Action Plan has been published and distributed to all interested parties in the range countries, and made available for individual National Action Plans. Mountain Tapir Action Plan is available in downloadable format from the TSG Website.

ACTION 11 Conduct a Population and Habitat Viability Assessment (PHVA) Workshop for Baird's Tapirs - *Tapirus bairdii* - with participants from all range countries (Belize, Colombia, Costa Rica, Guatemala, Honduras, Mexico, Nicaragua, and Republic of Panama). Venue: The Belize Zoo and The Tropical Education Center, Belize. Date: 2005.

Time	24 months
Cost	US$20,000
Responsibility	TSG Chair (Patrícia Medici), and TSG Baird's Tapir Coordinator (Eduardo J. Naranjo Piñera)
Collaborators	Local conservation organizations and researchers, IUCN/SSC Conservation Breeding Specialist Group (CBSG), AZA Tapir TAG, and EAZA Tapir TAG
Indicators	PHVA workshop has been conducted, Baird's Tapir Action Plan has been published and distributed to all interested parties in the range countries, and made available for individual National Action Plans. Baird's Tapir Action Plan is available in downloadable format from the TSG Website.

ACTION 12 Elaborate a Geographical Analysis for Lowland Tapirs - *Tapirus terrestris*.

Time	24 months
Cost	US$40,000
Responsibility	Silvia C. Chalukian (Argentina) and Patrícia Medici (Brazil)
Collaborators	Denis Alexander Torres (Venezuela), Adriana Mercedes Sarmiento Dueñas (Colombia), Olga L. Montenegro (Colombia), and Emilio Constantino (Colombia)
Indicators	Geographical Analysis has been elaborated. Final report has been developed and distributed (database, maps etc), and made available for individual National Action Plans and Species Action Plans.

GOAL 2 To establish standard data collection methods and databases in all tapir range countries.

ACTION 1 Establish a working group of field researchers and veterinarians to initiate e-mail discussions about standard ways of collecting and reporting tapir data. Develop draft Excel data sheets and checklists for the database.

Time	6-12 months
Cost	nil
Responsibility	Diego J. Lizcano (Colombia), Olga L. Montenegro (Colombia), Silvia C. Chalukian (Argentina), Patrícia Medici (Brazil), Pilar Alexander Blanco Márquez (Venezuela), and Iván Lira Torres (Mexico)
Indicators	Preliminary standard data collection and reporting guidelines have been established. Draft data sheet and checklist have been prepared.

ACTION 2 Conduct a workshop to finalize discussions about standard ways of collecting and reporting tapir data. Develop final Excel data sheets and checklists for the database.

Time	18 months
Cost	US$10,000
Responsibility	Diego J. Lizcano (Colombia), Olga L. Montenegro (Colombia), Silvia C. Chalukian (Argentina), Patrícia Medici (Brazil), Pilar Alexander Blanco Márquez (Venezuela), and Iván Lira Torres (Mexico)
Indicators	Workshop has been conducted, and document including standardized methods has been prepared and distributed, published in the *Tapir Conservation* Newsletter, and posted online on the TSG Website.

GOAL 3 **To identify research hotspots, priorities, and actors in all tapir range countries.**

ACTION 1 Develop a survey and distribute to TSG Members and other tapir conservationists in each range country asking which areas deserve attention. Interface results with existing scientific literature that supports areas suggested and recommended by range country representatives. Add list of recommendations to National and Species Action Plans.

Time	12 months
Cost	nil (electronic query)
Responsibility	TSG Chair (Patrícia Medici)
Collaborators	TSG Species Coordinators (Denis Alexander Torres, Emilio Constantino, Eduardo J. Naranjo Piñera, and Carl Traeholt), and TSG Country Coordinators
Indicator	List of recommended areas has been developed and distributed via e-mail, published in the *Tapir Conservation* Newsletter, posted online on the TSG Website, and made available for individual National Action Plans and Species Action Plans.

ACTION 2 Compile a satellite image bank for a GIS (Geographical Information System) survey of the areas. Coordinators will compile all images they can for free, and then go to University of Maryland for further images.

Time	2 months, within 12 months have a report on what can be done
Cost	US$600/image
Responsibility	TSG Species Coordinators (Denis Alexander Torres, Emilio Constantino, Eduardo J. Naranjo Piñera, and Carl Traeholt), and TSG Country Coordinators
Indicators	Image bank has been established and made available for individual National Action Plans and Species Action Plans.

GOAL 4 **To have 10 EAZA/AZA Zoos with established partnerships with tapir field researchers.**

ACTION 1 Identify all tapir holding institutions and tapir field projects worldwide.

Time	6 months
Cost	nil
Responsibility	Jennifer McLain (Houston Zoo Inc., USA), and TSG Chair (Patrícia Medici)
Collaborators	AZA and EAZA Tapir Studbook Keepers, AZA and EAZA Tapir TAG Chairs
Indicators	Tapir holding institutions and tapir field projects have been identified and listed, and database has been established.

ACTION 2 Provide all TSG Members with a list of tapir holding institutions worldwide.

Time	6 months
Cost	nil (electronic distribution)
Responsibility	Jennifer McLain (Houston Zoo Inc., USA), and TSG Chair (Patrícia Medici)
Indicators	List of tapir holding institutions has been developed and distributed to all TSG Members.

ACTION 3 Provide all tapir holding institutions worldwide with a prioritized list of tapir field projects needing funding.

Time	6 months
Cost	nil (electronic distribution)
Responsibility	Bengt Holst (Copenhagen Zoo, Denmark), and TSG Chair (Patrícia Medici)
Collaborators	AZA Tapir TAG Chair, AZA and EAZA Tapir Studbook Keepers, and TSG Zoo Committee
Indicators	List of tapir field projects needing funding has been developed and distributed to all tapir holding institutions worldwide.

ACTION 4 Involve ARAZPA (Australasian Regional Association of Zoological Parks and Aquaria) and SEAZA (South East Asian Zoos Association) to help with Asian Zoos and Malay tapir field projects.

Time 6 months
Cost nil
Responsibility TSG Zoo Committee Coordinator (Siân S. Waters)
Indicators Verbal commitments from ARAZPA and SEAZA have been obtained.

ACTION 5 Place information about the TSG in the Websites and newsletters of the American Zoo and Aquarium Association (AZA), European Association of Zoos and Aquaria (EAZA), Australasian Regional Association of Zoological Parks and Aquaria (ARAZPA), South East Asian Zoos Association (SEAZA), and World Association of Zoos and Aquaria (WAZA).

Time 6-8 months
Cost nil
Responsibility TSG Zoo Committee Coordinator (Siân S. Waters)
Collaborators AZA and EAZA Tapir TAG Chairs, TSG Education & Outreach Committee, and TSG Webmaster (Gilia Angell)
Indicators Announcements have been published.

ACTION 6 Conduct awareness campaigns for partnerships at Regional Zoo Association meetings in tapir range countries in Central and South America, and Southeast Asia.

Time 15 months
Costs nil
Responsibility Viviana B. Quse (Fundación Temaikén, Argentina)
Collaborators TSG Zoo Committee, AZA, EAZA, ARAZPA, SEAZA, and Regional Zoo Associations in tapir range countries in Central and South America, and Southeast Asia
Indicators Info material has been developed, and campaigns have been conducted in each region.

ACTION 7 Maintain the TSG Zoo Conservation Funding Database. Announce the existence of the database in the *Tapir Conservation* Newsletter, and on the TSG Website.

Time 6 months, ongoing as we add emerging conservation funds
Cost nil
Responsibility TSG Zoo Committee Coordinator (Siân S. Waters), and TSG Fundraising Committee
Indicators Database is up to date, and its existence has been announced in the *Tapir Conservation* newsletter, and on the TSG Website.

GOAL 5 To increase awareness of tapirs outside of the TSG.

ACTION 1 Launch the new TSG Website.

Time 3-6 months for initial rollout, ongoing
Cost US$50 for three years domain name; US$400/year for credit card processing
Responsibility TSG Webmaster and Marketing Committee Coordinator (Gilia Angell)
Collaborators TSG Chair (Patrícia Medici), and TSG Membership
Indicators All the navigation elements have been linked to valid content. We are able to collect donations on our Website. We are in the top 5 results on Google for search term "tapir".

ACTION 2 Create the "TSG Members" and "Tapir Project Profiles" pages on the TSG Website.

Time 3-6 months
Cost nil
Responsibility TSG Webmaster and Marketing Committee Coordinator (Gilia Angell)
Collaborators TSG Chair (Patrícia Medici), and TSG Membership
Indicators TSG members have sent their professional biographies and information about their projects to the TSG Webmaster (Gilia Angell). The deadline for information submission is May 10. The "TSG Members" and "Tapir Project Profiles" pages have been created, and are online on the TSG Website.

ACTION 3 Design and distribute an attractive and multi-lingual HTML E-mail including information about TSG and its activities. The TSG will be given a personality through the Chair's signature. The HTML E-mail will be "signed" by TSG Chair Patrícia Medici and offer her e-mail for contact, and point to the TSG Website for information. HTML E-mail will be sent out on behalf of any of the TSG members. HTML E-mail will be sent to institutional partners, large conservation organizations, agencies that have provided grant funding opportunities for tapir conservation projects, range country governmental and non-governmental organizations, universities etc.

Time	4-6 months
Cost	nil (electronic distribution)
Responsibility	TSG Webmaster and Marketing Committee Coordinator (Gilia Angell)
Collaborators	TSG Education & Outreach Committee Coordinators (Kelly Russo and Gareth Redston), and TSG Chair (Patrícia Medici)
Indicators	HTML E-mail has been designed and distributed to all organizations mentioned above.

ACTION 4 Design and distribute attractive and multi-lingual TSG Educational and Promotional Brochures. Brochures will be distributed at tapir holding zoos worldwide, and mailed to institutional partners, conservation organizations, agencies that have provided grant funding opportunities for tapir conservation projects, and range country governmental and non-governmental organizations, schools, universities, local communities etc. Use our in country TSG Members, TSG Country Coordinators, and other contacts to distribute.

Time	4-6 months
Cost	Printing and mailing costs
Responsibility	TSG Education & Outreach Committee Coordinators (Kelly Russo and Gareth Redston)
Collaborators	TSG Marketing Committee Coordinator (Gilia Angell); Siti Khadijah Abd. Ghani to translate into Bahasa Malay, Alberto Mendoza to translate into Spanish, Patrícia Medici and Anders Gonçalves da Silva to translate into Portuguese
Indicators	TSG Brochures have been developed, and each TSG Member has received a shipment of brochures to distribute in their countries. Brochures are available in downloadable format from the TSG Website.

ACTION 5 Develop an educational CD with tapir information and high-resolution photos for zoos exhibit graphics, and placement of our materials on other Websites.

Time	18 months
Cost	CDs and mailing costs (revenue to come from fee charged to well established zoos)
Responsibility	TSG Education & Outreach Committee Coordinators (Kelly Russo and Gareth Redston)
Collaborators	TSG Zoo Committee Coordinator (Siân S. Waters), TSG Webmaster and Marketing Committee Coordinator (Gilia Angell), and TSG Chair (Patrícia Medici)
Indicators	CDs have been developed and distributed (50 CDs burned within 6 months of completion).

ACTION 6 Use Stephen Nash's tapir illustrations for promotional materials (T-shirts, bags, posters etc), and fundraising.

Time	24 months
Cost	Printing/production and distribution will be recouped by sale.
Responsibility	TSG Education & Outreach Committee Coordinators (Kelly Russo and Gareth Redston)
Collaborators	TSG Marketing Committee Coordinator (Gilia Angell), and TSG Chair (Patrícia Medici)
Indicators	Promotional materials have been developed for sale on the TSG Website, and at the Third International Tapir Symposium in 2006.

ACTION 7 Send TSG information (HTML E-mail) to mass media vehicles (newspapers, magazines, television networks etc), pointing back to the TSG Website as the point of reference for multi-media/mass media and articles on tapirs. Follow ups of streaming video of tapir captures, interviews with researchers etc. will follow, and will be posted to the TSG Website.

Time	24 months
Cost	nil (electronic distribution)
Responsibility	TSG Webmaster and Marketing Committee Coordinator (Gilia Angell)
Collaborators	TSG Education & Outreach Committee Coordinators (Kelly Russo and Gareth Redston)
Indicators	Number of tapir-related newspaper articles, television shows, documentaries etc. in the mass media.

ACTION 8 Invite producers of different animal-related television programs (Animal Planet, Discovery Channel, National Geographic, BBC etc) to include tapirs in their programs.

Time 24 months
Cost nil
Responsibility TSG Marketing Committee Coordinator (Gilia Angell), and TSG Chair (Patrícia Medici)
Indicators Number of tapir documentaries produced.

ACTION 9 Identify a celebrity to act as TSG spokesperson.

Time 12 months
Cost nil
Responsibility TSG Marketing Committee Coordinator (Gilia Angell), and TSG Chair (Patrícia Medici)
Indicators Spokesperson has been identified and is acting.

ACTION 10 Compile images and videos available, making a TSG Multimedia Library.

Time 12 months
Cost nil
Responsibility TSG Chair (Patrícia Medici), and TSG Marketing Committee Coordinator (Gilia Angell)
Collaborators TSG Membership
Indicators TSG Multimedia Library has been compiled.

GOAL 6 To establish the TSG Genetics Committee and develop the International Tapir Genetics Project.

ACTION 1 Establish the TSG Genetics Committee including members from all tapir range countries in Central and South America, and Southeast Asia.

Time 2 months
Cost nil
Responsibility TSG Genetics Committee Coordinators (Anders Gonçalves da Silva, Javier Adolfo Sarria Perea, and Emilio Constantino)
Collaborators TSG Veterinary Committee, and TSG Chair (Patrícia Medici)
Indicators TSG Genetics Committee has been established.

ACTION 2 TSG Genetics Committee Coordinators send genetics survey to all members of the committee in all tapir range countries in Central and South America, and Southeast Asia. Survey will include questions about genetic information needs, the types of samples that can be collected, where the samples can be collected, existence of local genetic labs, local legislations for managing genetics samples etc). Use information gathered to write a proposal and start raising funds for the project.

Time 6 months to send the surveys and compile the information / 12 months to write the proposal and begin the process of raising funds for the project
Cost nil (electronic query)
Responsibility TSG Genetics Committee Coordinators (Anders Gonçalves da Silva, Javier Adolfo Sarria Perea, and Emilio Constantino)
Collaborators TSG Veterinary Committee, and TSG Chair (Patrícia Medici)
Indicators Genetics survey has been sent to all members of the TSG Genetics Committee, responses have been received, and proposal has been written and submitted to funding agencies.

ACTION 3 Establish the International Tapir Genetics Project as a network of cooperation among field researchers, veterinarians, zoos, universities, conservation organizations, local laboratories etc. in tapir range countries, so that samples can be collected and analyzed, and local and regional questions about tapir genetics can be answered. Identify and establish partnerships with at least three (3) laboratories in tapir range countries. Obtain CITES blanket permits for the four species of tapirs. Obtain permits to export and import samples from at least five (5) range countries in Latin America and Southeast Asia.

Time 24 months
Cost Project budget under preparation
Responsibility TSG Genetics Committee Coordinators (Anders Gonçalves da Silva, Javier Adolfo Sarria Perea, and Emilio Constantino)
Collaborators TSG Veterinary Committee, and TSG Chair (Patrícia Medici)
Indicators Tapir Genetics International Project has been established; partnerships with 3 laboratories in tapir range countries have been formalized; CITES permits have been obtained; and permits to export and import from 5 countries have been obtained. The preliminary data and results of this project will be presented during the Third International Tapir Symposium in 2006. The final data and results will be presented during the Fourth International Tapir Symposium in 2008.

GOAL 7 To involve researchers from tapir range countries that are not currently part of the TSG.

ACTION 1 Identify TSG Members in all tapir range countries that are not currently part of the TSG (Honduras, Nicaragua, Suriname, French Guiana, Peru, Paraguay, and Myanmar) (See Goal 1, Action 1).

Time 2 months
Cost nil
Responsibility TSG Chair (Patrícia Medici)
Collaborators TSG Species Coordinators (Denis Alexander Torres, Emilio Constantino, Eduardo J. Naranjo Piñera, and Carl Traeholt)
Indicators New TSG Members identified in each tapir range country that is not currently part of the TSG.

ACTION 2 Develop lists of tapir researchers and conservationists working in each tapir range country in Central and South America, and Southeast Asia. Send information to Jennifer McLain (Houston Zoo Inc., USA), who will be working on the creation and maintenance of a database of tapir holding institutions and tapir field projects worldwide (See Goal 4, Action 1).

Time 6 months
Cost nil
Responsibility TSG Country Coordinators, and TSG Chair (Patrícia Medici)
Indicators List of tapir researchers and conservationists working in each tapir range country has been developed and sent to Jennifer McLain.

GOAL 8 To have 10 EAZA/AZA Zoos with established partnerships with zoos in range countries.

See ACTIONS listed for GOAL 4.

GOAL 9 To form local groups working on National Action Plans for tapirs.

See ACTIONS listed for GOAL 1.

GOAL 10 To gather and organize all available information about tapir population status and their habitats.

See ACTIONS listed for GOAL 1.

GOAL 11 To provide support for technical training and capacity building on veterinary issues.

ACTION 1 Identify any possibilities of training and capacity building for field and zoo veterinarians working on tapirs. Develop and distribute a list of potential courses on Wildlife Medicine including training on anesthesia, health assessments, epidemiological studies, collection, handling and storage of biological samples, biomedical parameters etc.

Time 6 months
Costs nil
Responsibility TSG Veterinary Coordinator (Pilar Alexander Blanco Márquez), and TSG Chair (Patrícia Medici)
Collaborators TSG Veterinary Committee Members, AZA Tapir TAG Veterinarian Advisers, Wildlife Conservation Society (WCS) Veterinary Program, IUCN/SSC Veterinary Specialist Group (VSG), and American Association of Zoo Veterinarians (AAZV).
Indicators List of potential courses on Wildlife Medicine has been developed and distributed to all field and zoo veterinarians working on tapirs, and posted on the TSG Website.

ACTION 2 Elaboration of the curriculum of a training course specifically directed to field veterinarians working on tapirs.

Time 12 months
Costs nil
Responsibility TSG Veterinary Coordinator (Pilar Alexander Blanco Márquez)
Collaborators TSG Veterinary Committee Members, Wildlife Conservation Society (WCS) Veterinary Program, IUCN/SSC Veterinary Specialist Group (VSG), and AZA Tapir TAG Veterinarian Advisers.
Indicators Training course curriculum has been elaborated.

ACTION 3 Establish a small annual fund within the TSG Conservation Fund to support the activities of the TSG Veterinary Committee, including professional training of committee members, veterinary support to tapir field projects worldwide, and establishment of the TSG "Vets Without Frontiers" Program.

Time 12 months
Costs nil
Responsibility TSG Fundraising Committee Coordinator (Patrícia Medici), and TSG Veterinary Committee Coordinator (Pilar Alexander Blanco Márquez)
Indicators Annual fund has been established.

GOAL 12 To establish the TSG as THE point of reference for everyone seeking information on all aspects of tapirs.

See GOAL 4, ACTIONS 3, 4, 5 and 6.
See GOAL 5, ACTIONS 1 to 10.
See GOAL 14, ACTIONS 1 and 2.

GOAL 13 To get all tapir holding zoos aware of what data is needed for proper record keeping.

ACTION Develop standardized record keeping forms in appropriate language to all tapir holding facilities worldwide. Final document will be incorporated to the TSG Zoo Committee "Tapir Package" and distributed to all tapir holding zoos worldwide (See Goal 17).

Time 6 months
Costs nil
Responsibility Douglas M. Richardson (Mountain View Conservation and Breeding Center, Canada)
Collaborators AZA and EAZA Tapir TAG Chairs, and TSG Zoo Committee
Indicators Standardized record keeping forms have been developed and translated.

GOAL 14 To get all tapir holding zoos aware of the TSG and its activities.

ACTION 1 Design and develop an attractive and multi-lingual HTML E-mail (addressing zoo administrators and educators) including information about TSG and its activities. Distribute to all tapir holding zoos worldwide.

Time	4-6 months
Costs	nil (electronic distribution)
Responsibility	Carolina Villegas (Colombia), and TSG Webmaster and Marketing Committee Coordinator (Gilia Angell)
Collaborators	TSG Chair (Patrícia Medici), TSG Zoo Committee Coordinator (Siân S. Waters), TSG Education & Outreach Committee Coordinators (Kelly Russo and Gareth Redston), and AZA and EAZA Tapir TAG Chairs
Indicators	HTML E-mail has been designed and developed, and distributed to all tapir holding zoos worldwide.

ACTION 2 Encourage tapir holding zoos to create links to the TSG Website. Contact key target people at the zoos, including their webmasters, and follow up with e-mails or telephone calls.

Time	4-6 months
Costs	nil
Responsibility	Carolina Villegas (Colombia), and TSG Webmaster and Marketing Committee Coordinator (Gilia Angell)
Collaborators	TSG Chair (Patrícia Medici), TSG Zoo Committee Coordinator (Siân S. Waters), AZA and EAZA Tapir TAG Chairs
Indicators	Links to the TSG Website have been established.

GOAL 15 To encourage field projects to include health aspects.

ACTION 1 Resume and finish the process of development of the Tapir Veterinary Manual started during the First International Tapir Symposium in Costa Rica. Distribute the Manual to the entire TSG Membership, and any other researchers and organizations working on tapirs.

Time	6 months
Costs	nil
Responsibility	TSG Veterinary Committee Coordinator (Pilar Alexander Blanco Márquez)
Collaborators	TSG Genetics Committee, TSG Species Coordinators (Denis Alexander Torres, Emilio Constantino, Eduardo J. Naranjo Piñera, and Carl Traeholt), and TSG Country Coordinators
Indicators	Tapir Veterinary Manual has been finished and distributed to the entire TSG Membership, and other researchers working on tapirs. Manual is available in downloadable format from the TSG Website.

ACTION 2 Develop a list of areas of veterinarian expertise within the TSG Veterinary Committee (Anesthesia, Medicine and Health, Parasitology, Microbiology, Public Health, Health Management, Capture and Manipulation, Genetics, Reproduction, Immunology, Pharmacology etc). Distribute the list to the entire TSG Membership and any other researchers and organizations working on tapirs.

Time	6 months
Costs	nil
Responsibility	TSG Veterinary Committee Coordinator (Pilar Alexander Blanco Márquez)
Collaborators	TSG Species Coordinators (Denis Alexander Torres, Emilio Constantino, Eduardo J. Naranjo Piñera, and Carl Traeholt), and TSG Country Coordinators
Indicators	List of areas of veterinarian expertise has been developed and distributed to the entire TSG Membership and other researchers working on tapirs, and put available online on the TSG Website.

ACTION 3 Create the Tapir Talk Vet e-list to facilitate the communication and information exchange among veterinarians working on tapirs.

Time	2 months
Costs	nil
Responsibility	TSG Veterinary Committee Coordinator (Pilar Alexander Blanco Márquez)
Indicators	Tapir Talk Vet e-list has been created.

GOAL 16 **To increase involvement of range countries in the TSG.**

See ACTIONS listed for GOALS 1 and 7.

GOAL 17 **To have TSG approved husbandry and veterinary guidelines for all four species of tapirs.**

ACTION Develop and distribute a "Tapir Package" (including tapir husbandry and veterinary guidelines, simple environmental enrichment ideas for tapirs, and standardized record keeping forms) in appropriate languages for all four species.

Time 24 months
Costs Printing and mailing costs for those zoos with no Internet access
Responsibility Alan H. Shoemaker (AZA Tapir TAG, United States), and TSG Zoo Committee Coordinator (Siân S. Waters)
Collaborators AZA and EAZA Tapir TAG Chairs, and TSG Veterinary Committee
Indicators "Tapir Package" has been produced, translated, and distributed to all tapir holding zoos worldwide and TSG Membership. "Tapir Package" is available in downloadable format from the TSG Website.

GOAL 18 **To collect ethno-zoological knowledge.**

ACTION Establish a working group of TSG Members to discuss ways to collect ethno-zoological data in the tapir range countries, and create standard data sheets and checklists.

Time 6 months
Costs nil
Responsibility Adrián Naveda Rodriguez (Venezuela)
Indicators Working group has been established, and data sheets and checklists have been created.

GOAL 19 **To improve communication between the TSG and other organizations.**

See ACTIONS listed for GOAL 1.

GOAL 20 **To have threat assessments in each country for species and habitat.**

See ACTIONS listed for GOAL 1.

GOAL 21 **To have husbandry and veterinary guidelines distributed to regional/national zoo organizations or individual zoos in range countries.**

See ACTIONS listed for GOAL 15.
See ACTIONS listed for GOAL 17.

GOAL 22 **To have legal authorities aware of international management needs and acknowledging zoos' role in conservation.**

ACTION 1 Partner with the IUCN/SSC Conservation Breeding Specialist Group in their efforts to sort this out.

Time 6 months
Costs nil
Responsibility Douglas M. Richardson (Mountain View Conservation and Breeding Center, Canada)
Collaborators AZA and EAZA Tapir TAG Chairs, IUCN/SSC Conservation Breeding Specialist Group (CBSG)
Indicators Draft has been developed and distributed among appropriate TSG Members, and AZA and EAZA Tapir TAG Chairs for comments and approval.

ACTION 2 Develop a draft TSG Statement of Philosophy on movement of tapirs between facilities and regions.

Time	6 months
Costs	nil
Responsibility	Douglas M. Richardson (Mountain View Conservation and Breeding Center, Canada)
Collaborators	AZA and EAZA Tapir TAG Chairs
Indicators	Draft has been developed and distributed among appropriate TSG Members, and AZA and EAZA Tapir TAG Chairs for comments and approval.

GOAL 23 To have a diagnosis about legislation and management policies related to tapir conservation in each country.

ACTION TSG Country Coordinators send questionnaires to governmental agencies and policy-making agencies in each tapir range country in Central and South America, and Southeast Asia.

Time	10 months
Cost	nil (electronic query)
Responsibility	TSG Country Coordinators
Collaborators	TSG Chair (Patrícia Medici), and TSG Species Coordinators (Denis Alexander Torres, Emilio Constantino, Eduardo J. Naranjo Piñera, and Carl Traeholt)
Indicators	Questionnaires have been sent, responses have been received, and document including information about legislation and management policies related to tapir conservation in each country has been produced and distributed.

GOAL 24 To improve communication between TSG Members.

ACTION 1 Develop a pledge to communicate to be written into the signed IUCN/SSC TSG Membership Form.

Time	3 months
Costs	nil
Responsibility	TSG Chair (Patrícia Medici)
Indicators	Pledge developed and incorporated to the IUCN/SSC TSG Membership Form.

ACTION 2 TSG Chair and other TSG officers communicate with the entire membership and/or members of specific TSG Committees at least once a month.

Time	24 months
Costs	nil
Responsibility	TSG Chair (Patrícia Medici), and other TSG officers
Indicators	Communication among TSG members has increased. Each TSG member has became involved in at least one task listed on the TSG Plans for Action 2004/2005.

GOAL 25 To establish a clear and recognizable/concise mission about what the TSG is and why it is important.

ACTION Conduct an e-mail discussion among TSG Members and develop a new TSG Mission Statement in accordance with the IUCN/SSC mission. Identify someone with the necessary background to facilitate the discussions.

Time	12 months
Costs	nil
Responsibility	TSG Chair (Patrícia Medici)
Collaborators	TSG Marketing Committee Coordinator (Gilia Angell), and TSG Membership
Indicators	E-mail discussions have been conducted, and new TSG Mission Statement has been developed.

GOAL 26 To create a TSG Members section in the TSG Website where information can be divulged.

See GOAL 5, ACTION 2.

TSG FUNDRAISING COMMITTEE: Plans for Action 2004/2005

Patrícia Medici, Coordinator

GOAL 1 **Re-Structure the TSG Conservation Fund (TSGCF).**

ACTION 1 Move the TSG Conservation Fund (TSGCF) to the Houston Zoo Inc.

Time 2 months
Costs nil
Responsibility TSG Chair (Patrícia Medici), and Houston Zoo Inc. Director (Rick Barongi)
Indicators The TSGCF has been moved to the Houston Zoo Inc. and is functioning normally.

ACTION 2 Create web pages for the TSG Conservation Fund (TSGCF) on the TSG Website, and establish a system of donations online.

Time 4-6 months
Costs $200-$500 up front investment in credit card processing software
Responsibility TSG Webmaster (Gilia Angell)
Collaborators TSG Chair (Patrícia Medici)
Indicators The TSGCF web pages have been created, and the TSGCF online donation form is functioning, and online donations can be made, processed and accepted.

ACTION 3 Improve the TSG Conservation Fund (TSGCF) Proposal Reviewing Forms.

Time 6 months
Costs nil
Responsibility TSG Fundraising Committee Coordinators (Patrícia Medici and Charles R. Foerster)
Collaborators TSGCF Reviewing Committee
Indicators The TSGCF Proposal Reviewing forms have been reviewed and improved.

GOAL 2 **Raise a larger amount of funds for the TSG Conservation Fund (TSGCF) and distribute these funds to tapir conservation projects (field and captivity) through selective processes.**

ACTION 1 Conduct Annual TSGCF Campaigns for Private Donors worldwide (printed flyers, e-mails, and through the TSG Website).

Time 24 months
Costs Printing and mailing costs
Responsibility TSG Fundraising Committee Coordinators (Patrícia Medici and Charles R. Foerster), and TSG Webmaster and Marketing Committee Coordinator (Gilia Angell)
Indicators Two annual campaigns (2004 and 2005) have been conducted.

ACTION 2 Conduct Annual TSGCF Campaigns Tapir Holding Institutions worldwide (Tapir Appeals).

Time 24 months
Costs Printing and mailing costs.
Responsibility TSG Chair (Patrícia Medici), and AZA and EAZA Tapir TAG Chairs
Collaborators TSG Zoo Committee Coordinator (Siân S. Waters)
Indicators Two annual campaigns (2004 and 2005) have been conducted.

ACTION 3 Develop the TSG Proposal (printed and multimedia) and the "Menu" of Tapir Conservation Projects. Submit or present the proposal to at least five (5) major potential funding sources.

Time 6 months for the development of the proposal / 24 months for the applications
Costs Printing and mailing costs
Responsibility TSG Fundraising Committee Coordinators (Patrícia Medici and Charles R. Foerster)
Indicators The TSG Proposal (printed and multimedia) has been developed and submitted or presented to at least five major potential funding sources.

ACTION 4 Identify two (2) conservation organizations to establish partnerships with the TSG, adopting the group and supporting its activities on a regular basis.

Time	24 months
Costs	nil
Responsibility	TSG Chair (Patrícia Medici)
Collaborators	TSG Fundraising Committee, and AZA and EAZA Tapir TAG Chairs
Indicators	Two conservation organizations have established partnerships with the TSG, and are supporting the group's activities on a regular basis.

ACTION 5 Conduct at least two (2) funding cycles, and distribute at least ten (10) tapir conservation grants.

Time	24 months
Costs	nil
Responsibility	TSG Fundraising Committee Coordinators (Patrícia Medici and Charles Foerster)
Indicators	Two TSGCF funding cycles have been conducted (2004 and 2005), and ten tapir conservation grants have been distributed.

GOAL 3 **Raise funds for the upcoming Tapir Meetings in 2004, 2005 and 2006: Mountain Tapir PHVA (Cali, Colombia, October 2004), Baird's Tapir PHVA (Belize City, Belize, 2005), Workshop about Data Collection Standardization (2005), and Third International Tapir Symposium (Chiapas, Mexico, 2006).**

ACTION Write and submit proposals for each one of the meetings.

Time	24 months
Costs	nil
Responsibility	TSG Chair (Patrícia Medici), and TSG Fundraising Committee
Collaborators	AZA and EAZA Tapir TAG Chairs, Species Coordinators
Indicators	Funds have been raised, and meetings have been successfully conducted.

GOAL 4 **Find financial support for the TSG printing and mailing expenses (fundraising campaigns, action plans, brochures etc), promotional materials (T-shirts, posters, bags etc), educational CDs etc.**

ACTION Identify and contact as many potential donors as possible.

Time	24 months
Costs	nil
Responsibility	TSG Chair (Patrícia Medici), and TSG Fundraising Committee
Collaborators	AZA and EAZA Tapir TAG Chairs
Indicators	Financial support has been found, and materials have been produced and distributed (or sold).

GOAL 5 **Raise funds for the establishment of specific TSG-Supported Projects such as the International Genetics Project, the Lowland Tapir GIS Project, the TSG Veterinary Committee Training Fund, the TSG "Vets Without Frontiers" Program, the TSG Exclosure Plots Project etc.**

ACTION Write and submit proposals for each one of the projects.

Time	24 months
Costs	nil
Responsibility	Project's Coordinators, and TSG Committees Coordinators
Collaborators	TSG Fundraising Committee
Indicators	Funds have been raised, and projects have been established.

GOAL 6 **Provide support for TSG members and other tapir conservationists to identify potential funding sources, and raise funds for their projects.**

ACTION Provide TSG endorsement for tapir proposals.

Time	24 months
Costs	nil
Responsibility	TSG Chair (Patrícia Medici)
Indicators	Tapir proposals being reviewed and endorsed on a regular basis.

See GOAL 4 (TSG Plans for Action), ACTIONS 1, 2, 3, 6, and 7.
See GOAL 5 (TSG Plans for Action), ACTION 2.

TSG ZOO COMMITTEE: Report & Plans for Action 2004/2005

Siân S. Waters, Coordinator

The IUCN/SSC TSG Zoo Committee was formed at the First International Tapir Symposium in Costa Rica in 2001. Heidi Frohring, Tapir Keeper at the Woodland Park Zoo in Seattle, United States, was the coordinator at that time but she decided to step down in 2002 and Siân S. Waters from United Kingdom took over about a year ago.

At the first Zoo Committee meeting in Costa Rica it was decided that the committee would have four main tasks. The tasks are listed below but not in order of priority.

1. Compile a list of funding resources available from zoos for tapir conservation projects. Patrícia Medici, Chair of the TSG, had already begun this task and the final document was circulated to TSG Members in the spring of 2003. This resource will need to be updated on a fairly regular basis and we would like to find a volunteer to do this.

2. The second task was to compile and maintain a list of experts in the captive husbandry and management of tapirs. This list or register holds the names, contact addresses and fields of expertise for about 20 people from nine countries and is an ongoing project. Requests for voluntary registrations were placed in the electronic newsletter *ZooNews Digest* and in print in *International Zoo News*. A request was also placed on various list serves. This generated a reasonable response. Australia, Central and South America, Europe and the US are all represented, but unfortunately there are no representatives from Asia.

3. The third goal is to improve communication between those working with tapirs in captivity and those working with tapirs in the field. During the meeting of the Zoo Committee in Panama it was felt that the newsletter, *Tapir Conservation*, was fulfilling this role adequately. In general it seems that people think the newsletter has a good range of topics, papers etc. at the moment. However, the newsletter editors will form a small editorial board so that articles can be sent to people with specific expertise for their comments on the content.

4. The last task from the original Zoo Committee meeting was a project working with zoos on new zoo signage/labeling for their tapir exhibits. The idea was to encourage zoos to include information about the work of the TSG on their signage and perhaps to talk about a tapir conservation project they were sponsoring. This has made little progress, and during the Zoo Committee meeting in Panama members of the committee discussed the possibility of developing a CD with photos from the field that could be used in new zoo signage etc. and also developing accurate and interesting information all about the four species of tapir and their ecology, biology etc. to be included on the CD. If zoos used this information then the TSG would request that they acknowledged the group on the sign itself and added a short, informative paragraph about its work and the Website address.

Kelly Russo from the Houston Zoo Inc., United States, and Gareth Redston from Chester Zoo, United Kingdom, have volunteered to take on the task of developing the CD. Zoos from the developed world who request the CD will be asked for a donation of about $10.00. Zoos from the developing world, however, will not be asked for a donation. The first thing we are doing is to ask fieldworkers to donate photographs of their work for the CD. It would be good if the CD could be ready by the late summer when the European and North American zoo association meetings take place. This would be a good way of informing zoos in those regions about the CD. The CD could also be presented at other regional zoo meetings as they occur.

During the Zoo Committee meeting in Panama it was decided that the committee will concentrate on attempting to get basic husbandry information to those taking care of tapirs in range country zoos and elsewhere. Basic husbandry guidelines have been developed and are available on the web in English and Spanish. However these are a little out of date and need to be revised and translated into the appropriate languages. The committee has agreed to revise the original guidelines and to translate them into more languages. The various regional zoo associations would be informed and input requested from them. The guidelines would then be available on the website and the committee would also attempt to ensure that they reach the target audience.

For further details about the actions that will be taken by the TSG Zoo Committee over the next two years (2004/2005), please see the TSG Plans for Action included in this report.

TSG VETERINARY COMMITTEE: Report & Plans for Action 2004/2005

Pilar Alexander Blanco Márquez, D.V.M., Coordinator

The IUCN/SSC TSG Veterinary Committee was created during the First International Tapir Symposium held in November 2001 in San José, Costa Rica. Sonia Hernandez Divers, Ph.D. Graduate Student at the University of Georgia, United States, was the coordinator when the committee was created. Pilar Alexander Blanco Márquez from Venezuela took over during the Second International Tapir Symposium in Panama.

The initial goal of this committee was to identify the role of the veterinarians in multidisciplinary teams involved in tapir conservation projects. With the participation of a number of veterinarians from Latin America and United States, this committee launched a series of activities, such as the compilation of bibliographic materials, and the standardization of field methodologies in order to guarantee that health studies will be effectively conducted.

The following tasks have been accomplished in the last two years:

1. Responded to 71 emails in regard to health issues. The majority of these questions came from abroad, with the largest majority originating from Latin America. The most commonly requested information dealt with the following topics: reproduction/contraception, nutrition, vaccination, immobilization and questions about specific clinical signs;
2. Summarized tapir mortalities in the North American captive population from 1996-2002;
3. Pre-Shipment/Quarantine Guidelines for tapirs for the Veterinary Advisory Group;
4. Formulated a document, which outlines the rationale for including a veterinarian in field projects;
5. Formulated a list of health-related priorities for research as a way to aid the IUCN/SSC Tapir Specialist Group Chair in prioritizing research needs;
6. Created a document to guide field researchers who do not have continuous veterinary assistance in the area of biological sample collection;
7. Summarized previously reported immobilization protocols in one document;
8. Revised the updated version of the *AZA Husbandry Manual for Tapirs*.

The following tasks will be accomplished over the next two years:

1. Identify any possibilities of training and capacity building for field and zoo veterinarians working on tapirs. Develop and distribute a list of potential courses on Wildlife Medicine including training on anesthesia, health assessments, epidemiological studies, collection, handling and storage of biological samples, biomedical parameters etc;
2. Elaborate a curriculum of a training course specifically directed to field veterinarians working on tapirs;
3. Establish a small annual fund within the TSG Conservation Fund to support the activities of the TSG Veterinary Committee, including professional training of committee members, veterinary support to tapir field projects worldwide, and establishment of the TSG "Vets Without Frontiers" Program;
4. Resume and finish the process of development of the Tapir Veterinary Manual started during the First International Tapir Symposium in Costa Rica. Distribute the Manual to the entire TSG Membership, and any other researchers and organizations working on tapirs;
5. Develop a list of areas of veterinarian expertise within the TSG Veterinary Committee (Anesthesia, Medicine and Health, Parasitology, Microbiology, Public Health, Health Management, Capture and Manipulation, Genetics, Reproduction, Immunology, Pharmacology etc). Distribute the list to the entire TSG Membership and any other researchers and organizations working on tapirs;
6. Create the Tapir Talk Vet e-list to facilitate the communication and information exchange among veterinarians working on tapirs.

For further details about the actions that will be taken by the TSG Veterinary Committee during the next two years (2004/2005), please see the TSG Plans for Action included in this report.

SYMPOSIUM EVALUATION RESULTS

PAPER AND POSTER SESSIONS

Criteria: Content, number of speakers, length of session, depth etc

1.) What did you think of the LOWLAND TAPIR Paper Session?
Excellent 19% - Very good 62% - Good 19% - Could have been better 0% - Poor/Inadequate 0%

Comments:

Very good - We missed Brazil in this session.

Very good - Silvia Chalukian's presentation was very interesting.

Very good - I am very new at thinking about tapir conservation efforts (*in-situ*). It would have been very helpful to me, with all of the species sessions, to have the moderator present a "current situation" synopsis for the species before the session's papers were presented so we could put everything in perspective. Something like original vs. current range, estimated populations, summary of who is doing research worldwide and what they are doing. Sort of give the big picture before we jump into the details specific to what each researcher is doing. Like I said, I am an ignoramus when it comes to this, but I know that researchers tend to be fairly focused and a Baird's tapir researcher in Costa Rica may not be so familiar with the current situation of Malay tapirs in Malaysia so others might find it helpful as well.

Very good - The common theme that seemed to come out of most of these presentations is that the Lowland tapir occurs in far lower densities than I thought.

Good - I would like to have seen more presentations in this session.

2.) What did you think of the MALAY TAPIR Paper Session?
Excellent 30% - Very good 43% - Good 19% - Could have been better 8% - Poor/Inadequate 0%

Comments:

Excellent - Their population estimates suggest we should change Red List from Vulnerable to Endangered.

Excellent - Carl Traeholt's presentation was very solid. Douglas Richardson' presentation was very interesting. I loved the pictures of the tapirs in the Mountain View enclosure. His tone has the same almost over optimistic marketing-speak and superlative that is a bit off-putting. That is purely a personal preference. I guess I prefer a more pragmatic approach -for instance, what is their plan for these young animals once bred? I did like the debate stirred up by his solicitation to Mike Dee for a Mountain tapir from Los Angeles Zoo.

Very good - I think that more speakers should have presented in this session.

Very good - It is unfortunate that there was no one from either Thailand or Indonesia to give a presentation. Carl Traeholt paints a very dismal picture of perceived numbers in Malaysia. It appears to me that the IUCN status of Malay tapir needs to be changed back to Endangered.

Good - Talks given were good but I would have liked to see greater representation of Malay tapirs at the conference.

Good - It is amazing to me how little is known or being done about Malay tapirs. Were they so poorly represented at this conference because of the travel distances involved for the researchers or is it truly that bad?

Good - It was a good start. We need more research projects on Malay tapirs so we can gather the necessary information for the Action Plans, and also to increase awareness for the species.

Could have been better - Shame one presentation was about captivity. Perhaps more papers on captivity would have been an option given there is so little in the field.

3.) What did you think of the MOUNTAIN TAPIR Paper Session?
Excellent 31% - Very good 47% - Good 19% - Could have been better 3% - Poor/Inadequate 0%

Comments:

Excellent - These researchers are doing an excellent job, especially Diego Lizcano from Colombia.

Very good - Estimates of as many as 5,300 tapirs seem high, and some of the presenters agree. They feel, and I agree, that 4,000 is closer to the fact. Their means of population estimation by counting available habitat is faulty, as was also determined to be true when calculating leopard populations in Africa.

Very good - It was a shame that there were not presentations from other countries such as Ecuador and Peru, where Mountain tapir also exists.

Very good - This session had very good presentations, especially the ones made by Diego Lizcano and Olga Montenegro. The other presentations could have been better.

Very good - There were too many presentations during this session, and some of them should have been presented as posters as they included information about research plans and not established projects.

Good - I think that presentations about conservation plans could have been presented as posters, especially those regarding very specific localities.

Could have been better - This one I actually saw in almost all its entirety. Despite Jaime Mejía's animated presentation, I almost fell asleep. The translation from Spanish was not very coherent, or it could have been that he presented many, many charts and graphs that were difficult to read because of the fine print. A little humor would have been nice too, even if it was lost on non-Spanish speakers. Unfortunately, all went over time, too and they all seemed to present the same formula for each region discussed: census and assessment, action plan and community outreach. Maybe that is general par for the course, but it is starting to sound the same. It made me realize that we really need to rethink marketing the tapir in places like Colombia, and that many of the people working there are field researchers and they all think alike. I noticed also, that in several power point presentations, not just one of the Mountain tapir presentations, slides were made that featured black text on a background of a jungle scene, rendering the images useless if the presenter expected the audience to be able to read from it. Please try to have a light text on a dark background or, a dark text on a light background, or, my preference, no background pattern or picture at all. Let the photos speak for themselves, and the words speak for themselves. An audience never dislikes looking at a pleasant image and resting their eyes on an image. Just because it is there does not mean you have to put text on it.

4.) What did you think of the BAIRD'S TAPIR Paper Session?
Excellent 33% - Very good 39% - Good 22% - Could have been better 6% - Poor/Inadequate 0%

Comments:

Good - Too few presentations.

Very good - This session needed more presentations.

Could have been better - I think this session was poor when compared to the other paper sessions.

5.) What did you think of the GENERAL TOPICS Paper Session?
Excellent 22% - Very good 36% - Good 39% - Could have been better 3% - Poor/Inadequate 0%

Comments:

Excellent - Charles Foersters' paper on the exclosure plots was particularly interesting.

Good - Jessica Hoffman's presentation felt like a NOVA program with beautiful pictures and a sort of glossing over type of narration. A nice break from the charts, graphs and maps. But some people may have wondered what the relevance of her presentation was? Yes, we all support biodiversity, but then what?

Good - I would have liked to see more than two presentations in this session.

6.) What did you think of the time allotment for paper presentations (15 minutes + 5 minutes for questions)?
Too long 0% - Too short 27% - Just right 73%
Suggested time: 20 min. + 5 min. for questions; 25 min. + 5 min. for questions; 20 min. + 10 min. for questions

Comments:

Too short - We need to stay on schedule. The speakers and attendees would have been in for a shock at an AZA conference!

Too short - It is important to have more time for questions so the presenter can explain his work and answer questions more comfortably.

Too short - The time allotment was way too short for the presentations, but just right for questions. Often, there were no questions. In general all paper sessions went over time. Because of this, people grew impatient, and paid less attention, or grew tired. Because all of this is vital information about tapirs, we really should be paying attention. Perhaps a compromise in time can be made for the next one. 30 minutes per presenter, instead of 20, but tell them 20 max, and be firm about it. We could consider having timers, green-yellow-red lights for when someone is going over time, like they do in Toastmasters Clubs.

Too short - Most presenters went over 15 minutes. Some presentations were too long, which is bad. And when a time is established it must be controlled in order to be fair with everybody.

Too short - So many things ran way over time limit. Either some sessions should be longer, or the time limit must be enforced more ie. 5 minutes to go cards.

Too short - Presentation time seemed about right, possibly allow more time for questions.

Just right - I think a total of 15 minutes + 5 is excellent timing.

Just right - Time keeping could have been better.

7.) What did you think of the POSTER Sessions?
Excellent 24% - Very good 30% - Good 32% - Could have been better 14% - Poor/Inadequate 0%

Comments:

Excellent - Even without the ability to read Spanish or Portuguese, having the presenters present took care of that problem.

Excellent - One of the better poster sessions I have seen, especially for a small conference like this one.

Excellent - The topics were diverse, covering all areas of interest regarding tapir's conservation.

Excellent - The poster session was great, much more than what I had expected.

Good - Posters were very interesting. However, there was too little time to really talk about them with the authors because the only time available was the coffee breaks. Maybe during the next symposium more time could be allocated to poster discussions.

Good - I think will be necessary have one special time for poster sessions, because the coffee breaks are not enough to visit the posters and talk to the authors.

Good - Should have received more attention. The poster presenters have done a huge job in making the posters. We need to find a way to focus on the different posters at least once during such a symposium. Perhaps a longer Poster Session once would be a solution (to make all people go to the poster room and have a look in stead of just using it for coffee).

Good - Glad the poster sessions went over one day, as I could visit with presenters and see their point of view. The room was laid out nicely and good for circulating. The posters really presented a variety of graphic design aesthetics too. Again, I would recommend that people avoid background patterns or pictures. Colors are fine, and are good for setting a mood or a sense of place. I had difficulty reading a few of the posters because of the text on a background. The less text the better. Edit, and edit again. Then go back and edit again! You will end up with something that people will really read. Justine Powell's poster was excellent in all regards. Clear title, in big letters that you could read from across the room, and clear illustrations of what the issues were.

Good - I suggest the poster session be conducted during the entire conference.

Could have been better - I think we should give more support and time to this form of presentation in future symposia. If we have more posters and less oral presentations, we will have a better opportunity to interact with the authors and propose potential collaborations.

Could have been better - Short English summaries by the Spanish posters would have been good for me.

Could have been better - The posters had different formats.

Could have been better - Some posters did not follow the format guidelines and some were lacking information.

Could have been better - The posters themselves were good, but they were not well distributed and the room did not have enough light.

WORKSHOPS

Criteria: Content, length, depth, level of interaction, practical usefulness etc

1.) What did you think of the TAPIR GENETICS: A CONCERTED EFFORT Workshop?
Excellent 30% - Very good 41% - Good 22% - Could have been better 5% - Poor/Inadequate 2%

Comments:

Excellent - Concerted efforts are, for me, one of the strongest characteristics of the TSG that we must promote. Altogether we can achieve a lot!

Excellent - Genetic studies are very important, but on the other hand are very expensive (chemicals, equipment etc.). As a consequence, I have the feeling that working as a team we will reduce our costs with genetics analysis and, at the same time, since we will be including many researchers from many different countries and background, we will be able to come up with solid information about this topic.

Very good - I felt like I was back in university! Anders Gonçalves gave an impassioned and informed presentation. Javier Sarria's was a little less so, mostly because of the language translation lag. His back and forth with the pointer and the big map of South America was a little disjointed too. He needs to find a better way to position specific species with specific geographies. Perhaps a slower reveal of the various "subspecies" of Lowland tapir would have gotten his point across just as well. Trying to keep all the animals (5?) straight with no lines connecting each one to each region was difficult.

Very good - The presentations were very interesting on their contents, but they were too long, leaving little time for discussion and interaction.

Very good - The presentations had good content and depth. Interesting perspectives. Presentations were good, although a little long.

Very good - It seemed to me that the project is very good, but I feel that some of the points were not clear enough. Some people were not really convinced of the principles and concepts of this project.

Very good - Although their costing of the project is unlikely to be realized.

Very good - This workshop generated a very satisfactory interest on the part of the participants.

Good - They should emphasize more the current state of the knowledge about tapir genetics, and present their proposal in a detailed form.

Good - These presentations were very informative, and this workshop was good to establish contacts.

Good - I would like to have seen more people involved, and more discussions during this session.

Could have been better - I think there is some controversy over the material they presented and I would have liked to have seen the TSG Evolution Consultant (Matthew Colbert) join the discussion to indicate that the situation is not as simple as presented. It would have made a better case for pursuing tapir genetics if they had gone into the complexities of figuring this stuff out from fossil evidence more.

Poor/Inadequate - Their ideas about tapir evolution are quite different from that of most paleontologists!

2.) What did you think of the TAPIR HUSBANDRY AND CAPTIVE MANAGEMENT Workshop?
Excellent 28% - Very good 50% - Good 17% - Could have been better 5% - Poor/Inadequate 0%

Comments:

Excellent - I was really impressed with Viviana Quse's facility and the level of training of their animals. While I do not trust tapirs quite as much as she does, it is obvious that their staff is extremely competent.

Excellent - I was very impressed with the work that in being undertaken in Argentina.

Very good - Viviana Quse's presentation and their work group was excellent, as well as her video.

Very good - The presentations stimulated very interesting discussions.

Very good - The speakers presented good guidelines and perspectives.

Very good - I think that it was very valuable for the field people to get a better idea of what us captive folks are trying to do and why.

Very good - Alan Shoemaker's history of captive breeding was fascinating! He is such a character too. He is fun to watch and hear his stories. It was refreshing that he did not speak from a power point presentation either. You could just sit back and listen to the storyteller. His summary of the AZA Tapir TAG recommendations was sobering (phasing out Mountain tapirs due to inbreeding) however, and I think really reminded people of the dire issues at hand. It certainly brought me around. Bengt Holst's presentation was very good; he has a very logical order of revealing information. Rick Barongi's slide show on Noriega's zoo was jaw dropping. I appreciated that he acknowledged the presence of Panamanians and their complicated history and it was a good segue way to the Summit Zoo project. Alberto Mendoza needs to slow down and enunciate if he wants to be understood. He is very funny, so if we understood 100% instead of 60% of what he is saying, he would be so much funnier and well regarded.

Good - A good session, unfortunately captive people were not well represented so it was more of a presentation than a discussion.

Good - It was not really a workshop, but a series of presentations about the theme. It did not involve a proposal to work together as the Genetics Workshop did.

Could have been better - It was disappointing that presenters talked more about breeding programs than the problems of captive management.

3.) What did you think of the ACTION PLANNING FOR TAPIR CONSERVATION Workshop?
Excellent 37% - Very good 46% - Good 17% - Could have been better 0% - Poor/Inadequate 0%

Comments:

Excellent - I think Philip Miller's approach is interesting, and should help identify areas where data is poor, and we need to concentrate efforts. The efforts by Olga Montenegro and Eduardo Naranjo are venerable. Yet, I still think that efforts should be made to make regional action plans. Otherwise, we might end up following very different goals in different parts of the species range. And, I am not sure this is at all useful. I think that there is a regional plan for conservation of Elephants in southern Africa, creating a corridor for their dispersal interlinking several national parks. Maybe we could use that as an example.

Excellent - This workshop was highly beneficial as an experience and model for the rest of the Action Plans through the tapirs range.

Excellent - This part of the symposium was really good given that it was key for the development of tapir action plans. This can be used as a base for future action plans.

Very good - I think Olga Montenegro is a rising star in the tapir world, and will do better upon graduation.

Very good - The example of the Colombian Action Plan can be implemented in Panama. I liked Olga Montenegro's presentation very much.

Very good - Hopefully more plans for action in other countries will be presented in the next symposium. This is a slow but important process. I think the existence of some programs will encourage other countries to start their own.

Very good - The presentations made during this workshop were very interesting. The presenters provided the audience with practical guidelines for the establishment of management programs. This information will be very useful for other countries of Latin America and Southeast Asia.

Very good - The speakers and presentations were great, but it was not really a workshop.

Good - Bengt Holst's presentation on the Malay Tapir Workshop was fascinating, and educational, especially concerning the cultural difficulties and impressions involved with an international conservation effort. Bengt has the right mix of humor and factual presentation in his speeches. His voice is also modulated well, punctuates the key phrases. Came away with the strongest impression of Philip Miller. He definitely drove home the need for "another way of thinking" about committee decision-making. Committees are hard, and his case studies were very interesting.

4.) What did you think of the FUNDRAISING Workshop?
Excellent 70% - Very good 25% - Good 5% - Could have been better 0% - Poor/Inadequate 0%

Comments:

Excellent - Experience is very important for fundraising, therefore I think the presentations by Wally Van Sickle and Patrícia Medici were very important. Gilia Angell's presentation was also very good, and her ideas might provide us with extra money.

Excellent - Wally Van Sickle's presentation was amazing! He definitely knows what he is talking about!

Excellent - All presentations were very motivational.

Excellent - I especially liked Patrícia Medici's talk about her personal experiences and ideas for "personal touches" to give to individual projects and donors.

Excellent - All presentations were very motivating, well structure and with real life examples.

Excellent - This workshop was really helpful and inspiring. It provided a different way of thinking and approaching fundraising.

Excellent - It is always great to hear about other people's experiences. And, it is great to hear such uplifting presentations. Got good ideas.

Excellent - All presentations were excellent and very useful. Presenters provided a different approach to fundraising, that not many people use, at least not veterinarians as myself. It was definitely a learning experience.

Excellent - It is always good to learn more about how to raise funds, and I strongly believe that this workshop provided a lot of useful information and insights for all of us.

Excellent - This was very helpful information! I really enjoyed it.

Excellent - Wally Van Sickle certainly is a great person to motivate an audience.

Excellent - It was a wonderful workshop with motivating presentations. I would be able to apply to any situation.

Very good - Patrícia Medici's presentation was especially entertaining and inspiring. I love case studies using people we know, or just case studies in general. It gives a sense of comparison, of real-world application. Wally Van Sickle's presentation was also very informative. It would have been very helpful to have a hand out to give to people afterwards, outlining key points (the book info slip was helpful, but is something that requires more action - we would have to get the book to know the points). A take-away sheet of paper on a presentation this important will drive home the importance of taking notes about this. Edward Tufte, an information architect, says to always give them something to remember you by, with your name and contact information, if you are amenable to being contacted, and I think Patrícia and Wally are.

Very good - It is very important that we, as researchers and conservationists, learn how to "sell" our ideas to potential donors.

Very good - Patrícia Medici's presentation was very good because she explained her methods to obtain funds.

Good - Good, but I noted that Wally Van Sickle's presentation was basically the same one he gave in Costa Rica.

5.) Do you think that there was a reasonable balance in terms of issues considered?
Yes 95% - No 5%

Comments:

YES - The fundraising and the action planning sessions were very important but too often are overlooked.

YES - Having not attended another scientific conference, I do not know any differently. I would note that the only time for any spontaneity about any topic was after 8 p.m. at night. The schedule was so tightly booked with presentations!

YES - The topics of *in-situ* and *ex-situ* conservation were balanced.

YES - All the topics covered during the conference were very interesting. However, I think it would be good to include more information about wildlife medicine.

YES - This being my first conference of this type, I was able to gain an overview of several new topics.

NO - More emphasis on Malay tapirs would have been good, as would captive management.

NO - I think that a lot of good papers were in the poster session and this probably limited a detailed presentation of the related issues of each research.

6.) Do you think that the themes of the workshops were relevant to tapir conservation? If not, please let us know what are the themes you think were not relevant.
Yes 100% - No 0%

7.) Do you think that there were themes that were given insufficient coverage? If yes, please let us know what are the themes you think were not covered enough. Please suggest other themes you think should be covered during the next symposium.
Yes 76% - No 24%

Comments:

YES - I think the themes were good but it could have been better. For me is important to focus a little bit more on *in-situ* management and the actions plans for each country.

YES - We need to include more tapir captive management and research, training and enrichment papers.

YES - Social and politics items, for example, the importance of the human component in actions plans. I have noted very limited presentations about the relationship between human and tapir issues, especially those focused in ethno-zoological and cultural aspects. Also, population management through pragmatic actions has not been discussed.

YES - While we all understand why Baird's, Mountain and Malay tapirs get all the press, it would be interesting for our membership and audience to have someone from Bolivia, Ecuador or the Guiana speak on the status of Lowland tapirs in those countries. It would appear, for instance, that not only is hunting legal in some of these countries but that skins are legally exported. I think the TSG would benefit from having speakers discuss use issues in what are otherwise little known populations.

YES - I think that issues of economics, and anthropology were poorly represented. I think we need people with this kind of backgrounds too. Today a lot of the conservation effort is shifting to preservation of ecosystem services, and quantifying the value of ecosystems. If we can do this for ecosystems in which tapirs exists, we could not only help conserve tapirs, but also get local communities more involved in the conservation of the animals. I think that only when we get the locals involved will we really be able to conserve the tapirs and their habitats efficiently.

YES - In my opinion, more time should be invested in action planning, and less time to oral presentation on research (many of the latter can be better presented as posters in an exclusive session).

YES - I would have liked to see more coverage of the role of education and communication to the public and its importance in tapir conservation.

YES - The symposium missed more presentations about veterinary issues, such as the importance of health assessments, preventive medicine, nutrition in captivity etc., and genetics.

YES - We should have discussed and established new maps of tapir distribution, and standardization of criteria for population estimates.

YES - I think that, in general, we lacked presentations and discussions about Baird's tapir conservation, and also about the participation of rural communities in conservation programs.

YES - Some of the themes in the posters where not covered during the oral presentations, and since time for posters was little, such themes were insufficiently covered. For example, in the field studies, traditional use and management of tapirs could be a theme that deserves more coverage because of its implications for *in-situ* conservation. Also, themes from captive management could be very illustrative for field studies. However, this last observation comes from my own bias, since I am very interested in Lowland tapir nutrition in captivity, as an important tool to understand my fieldwork findings regarding natural licks.

YES - They were: regional and international policies involving tapir and habitat conservation; dissemination and education, methods, goals, etc.; field methodologies; habitat fragmentation and connectivity; dissemination and public awareness; and, major regional and local threats.

YES - I think that the definition of TSG priorities must have more time for discussions. Also, I think it should not be conducted in the final day.

YES - I would have liked to see more presentations about technical/field surveys, studies.

YES - Some other themes may include alternatives to tapir hunting, education and policy making. I know, however, that the themes also depend on what people submit to the symposium.

YES - I think that it would be good to include topics such as the political aspects of conservation, and how we can influence conservation policy- and decision-making in our countries. Also, it would be interesting to include legislation about tapir conservation in the different range countries.

NO - But I enjoyed the fundraising workshop, and I think that more time covering that in more detail would be helpful.

KEYNOTE SPEECHES

Criteria: Content, length of speeches, depth, practical usefulness etc

1.) What did you think of the KEYNOTE SPEECHES?
Excellent 62% - Very good 30% - Good 8% - Could have been better 0% - Poor/Inadequate 0%

Comments:

Excellent - I think that Matthew Colbert's presentation was incredible and contributed to our knowledge about how to use this tool - skeletal and dental indications - in our new projects.

Excellent - I learned something from each one. William Karesh was extremely effective.

Excellent - They were all excellent talks. I think Matthew Colbert's presentation was very important to the people out in the field, and deserves attention. Plus, William Konstant and William Karesh's presentations were especially relevant to the TSG's aims.

Excellent - I especially liked Wally Van Sickle's talk with his inspirational messages, and William Karesh's talk because he focused on global conservation issues, made me more aware of things.

Excellent - All presentations were rich in topics, deep and with practical applications.

Excellent - All of the keynote speeches were really interesting and illustrative. I learned a lot from them.

Excellent - Most were very interesting and stimulating.

Excellent - Each speaker brought something different to the table that was valuable in one-way or another.

Good - Some were excellent others could have been better.

TSG COMMITTEES REPORTS

Criteria: Content, length of presentations, depth, practical usefulness etc

1.) What did you think of the TSG COMMITTEES REPORTS session?
Excellent 22% - Very good 38% - Good 35% - Could have been better 5% - Poor/Inadequate 0%

Comments:

Excellent - Excellent work by both presenters.

Excellent - It was one of the better sessions for me.

Good - TSG Zoo Committee … I still cannot separate that one from the *ex-situ* veterinarians and zoo professionals. I did not come away with a strong impression of the group or its goals from Siân Waters' presentation. She has the podium, she is the queen while she is got our attention, and she should not be shy - she read from her notes, and looked up only once or twice too. We will not bite, especially at 8 in the morning! Alexander Blanco's presentation sparked some response from me. It illustrated that it is time to start thinking of the TSG as a separate entity from the TPF Website. I hope people came away with that impression.

Good - Although this is not part of the criteria, "What happened with the other committees?" and "What happened with the species coordinators reports?"

Good - Not fully understanding the role of the TSG, having the reports was very helpful in seeing how each piece played a role in making the whole group work.

TSG PLANS FOR ACTION WORKSHOP

Criteria: Content, length, depth, level of interaction, practical usefulness etc

1.) What did you think of the TSG PLANS FOR ACTION WORKSHOP?
Excellent 42% - Very good 18% - Good 27% - Could have been better 13% - Poor/Inadequate 0%

Comments:

Excellent - This was by far the most important and productive part of the symposium in my opinion.

Excellent - The exercise was very good, but the time was short.

Excellent - This is the TSG tomorrow. The Ex-Situ Management team did a great job.

Excellent - It certainly helped the group to prioritize its goals and actions.

Excellent - The workshop dynamics and tools were very appropriate and the final results will certainly generate good things for the TSG.

Very good - This part for me is fundamental for tapir conservation. This is the principal point. I think would need more time for discussions and to put everything in order and to give priority to some specials points for every group.

Very good - I think we needed smaller groups. I was working in a group that was way too big, and so people's attention kept being lost! Also, we should have more time for this activity. By the end of the day most of us were dead. Otherwise, the workshop was very good.

Very good - We need to allocate more time to this workshop in future symposia.

Good - Need a better way to organize the groups to help them keep pace.

Good - Philip Miller said it himself: "We did in 1 day what we usually do in 3 days". The compression of time resulted in a few misunderstandings as far as goal setting, for our committee. We were told our goals were not quantifiable, when we took them to the larger group, but it had not been made clear to us what the definition of goal was. We thought we were presenting our brainstorm.

Good - I really appreciated the effort of the facilitators. However, at the beginning, we were not clear about the difference between the Research and the *In-Situ* Management Groups. At the end, some of the goals coincided.

Good - I really enjoyed working during this workshop, but I think we should have had more time to discuss the topics in depth. The presentations were too fast too. The work of Philip Miller and Amy Camacho is excellent and contributes a lot to conservation.

Good - But we need more time. We felt like running in the last day.

Could have been better - Facilitators should have had more preparation. Not all groups understood what they should do.

Could have been better - I think continuity between the groups was not as good as it may have been. The different groups took such different approaches that the results of all really cannot be integrated well.

Could have been better - We needed more time. The plenary was so short that we could not interact with the other groups and discuss their results. Voting without interacting was kind of a cold method and a general analysis and discussion was needed. We could participate on each other's groups' results and perhaps join others activities.

2.) Did you like the dynamics of the workshop, the way it was conducted?
Excellent 33% - Very good 30% - Good 30% - Could have been better 7% - Poor/Inadequate 0%

Comments:

Excellent - This gave me an opportunity to meet many of the individuals that I had only corresponded with. For me, this was an excellent opportunity to expand my reach, and to help others in ways I could not achieve before.

Excellent - Philip Miller and Amy Camacho were very helpful and I did not have problems to understand the dynamics of the workshop.

Very good - I think overall the concept and approach is great. It was especially helpful that in my group there were a number of people who were very experienced with the process and they kept the group focused and moving in a productive direction. I think all of the groups could have used mentors like them to keep them focused and productive as well.

Very good - In my group, we lost time trying to figure out what was it that we had to do, because not everybody understood the dynamics of the workshop.

Very good - In the end of the workshop we lost lots of time during the plenary, when the different groups were presenting their actions. Next time, this workshop should be organized in a more dynamic way.

Good - Possibly slightly biased towards *in-situ* conservation due to the smaller number of *ex-situ* conservationists present.

Good - Our group had healthy debates. We were very polite and civilized and took good notes. We were proud of our final presentation of ideas because we gave every goal its due attention, and then were able to create a list of tasks specific to our interests and committee.

Good - It lacked dynamism and the presentations should be shorter.

Good - I think it was a lot to process in one day, and most people were tired from four days of sitting in lectures.

Good - In general yes, but some times (at least in my group) it was a little difficult to advance and to agree on what it should be written in consensus. It was an interesting exercise, however.

Good - The method and quality of organizers were excellent but the methodology requires (from my point of view) more time and interaction. As most of us did not use it before, perhaps more support in the groups was required to improve results and time use. Participation was not very good, nor complete understanding of dynamics.

Good - We needed more explanation of the process.

3.) What working group did you choose to work with during the workshop?
Research - 24%
In-Situ Management - 28%
Ex-Situ Management - 24%
Communication & Education/Public Awareness - 24%

Comments:

RESEARCH - The group was too big. But, otherwise there were some very interested people.

RESEARCH – It was good to share our experiences and questions with colleagues from other countries and other areas of expertise, as well as to get to know the different needs and limitations. Different approaches of the same problems allowed us to generate more effective solutions.

IN-SITU MANAGEMENT - Research topics were difficult to avoid when discussing.

IN-SITU MANAGEMENT - In our group, we had some difficulties because some things that we were trying to define were dependent on the work of research group. You know, to define management you need to make research before.

EX-SITU MANAGEMENT - We had a good mix of participants from both range country zoos and North American and European institutions. Language was not much of a problem (I think) and results have already been realized.

EX-SITU MANAGEMENT - A great group of people. Bengt Holst deserves some sort of medal.

EX-SITU MANAGEMENT - I hope we will keep working on the ideas generated during the discussions.

COMMUNICATION & EDUCATION/PUBLIC AWARENESS - I worked with an excellent group.

COMMUNICATION & EDUCATION/PUBLIC AWARENESS - I felt that this group worked very well because we were a small group so everybody could be heard.

COMMUNICATION & EDUCATION/PUBLIC AWARENESS - We were overwhelmingly represented by Westerners and females. Rafael Samudio from Panama helped to form a Central American perspective to our planning, and Siti Khadijah from Malaysia lended her cultural expertise and impressions of how to market to Asia, but I would have loved to get someone not usually tasked with thinking about education and communication assigned to our group.

COMMUNICATION & EDUCATION/PUBLIC AWARENESS - Very good group, but since education & communication really encompass all working groups, maybe next time have an education/communications representative to sit in on the other groups as well?

4.) Were you satisfied with the final results of your working group? If not, please explain why.
Yes 85% - No 15%

Comments:

YES - I think the final results were OK, but for the next symposium I propose that we dedicate more time for this part, as it is really important.

YES - It was not entirely clear how to assign a solution to a task (from the final list of 5 goals) to someone who was not in our group. It did not seem "nice" or "fair" to assign responsibility to someone who was not present in our committee. Were we allowed to do that? And where do a goal end and an action item begin? This was not clear to us. Define each part of the process and the "rules." Also, I think we can be more hard assed about wishy-washy sounding goals. Lump goals that sound/are the same from separate committees in together to consolidate.

YES - The group worked very well but we needed of more time to complete the assigned work.

YES - Yes, we had an interesting discussion in the group.

YES - I am satisfied with the results of the exercise although we could have had more time in order to prioritize the actions. Time is key to reach good results.

NO - We did not have enough time to deal with topics proposed by the group as these were not in the top 5 goals chosen for action.

NO - We spent too much time discussing how to organize and integrate our personal priority lists. Finally we did it, but we could have been more specific and comprehensive if we had had more time for the workshop.

NO - Language barrier slowed things down a bit. Need to have someone to translate separate from group. The group just had a really difficult time getting organized, which prevented us from getting all of our ideas down. Perhaps spreading the workshop out over a few days, but just doing a little bit each day would give individuals more time to think about and organize their own ideas.

NO - I am satisfied with the general proposal, but lack of method made us repeat the same idea, with different scale visions. No very deep analysis and many topics were not even mentioned. Not all did participate. Some were shy and nobody was able to efficiently stimulate others to participate. It was not easy to get a regional-species vision instead of national point of view. Many topics to discuss in very short time.

NO - Our main outcome was the conclusion that we need regional action plans. It is a good thing to do, but what happens if national governments do not have the money or the will to elaborate those plans? It is clear that we can take some management actions without having national plans, based on regional plans or species action plans. Our main goal in the case of management should be to define distribution maps for each species, because we cannot manage a species in a place where it is absent!

5.) Were you satisfied with the priority goals and actions listed by your working group? If not, please explain why and list the goals and actions that you believe were missing.
Yes 94% - No 6%

Comments:

YES - Not everyone is familiar with this format but once they "got on board", I think everything went pretty smoothly.

YES - But, the participation of rural communities in conservation plans did not have sufficient coverage.

YES - A lot of it seemed like a rubber stamp committee for the AZA Tapir TAG, which was natural since, so many were involved on both groups. I would have liked to see more arguing, yelling and screaming though.

YES - In general terms, yes, but I think we missed the policy topic, I mean how we can insert our goals in national-regional policies? We needed a deeper discussion about this.

NO - While I did not have any to add I felt other had more to say, but we did not have enough time to say it.

NO - In our discussions it was clear that to define our management actions we needed a lot of information that will not be available until a lot of research is done. I suggested we should work on distribution maps for the species and it was considered a research action instead of a management action. I think that the goals must start with political aspects such as habitat and species protection!

6.) Were you satisfied with the priority goals and actions listed by the other working groups? If not, please explain why and list the goals and actions that you believe they missed.
Yes 88% - No 12%

Comments:

YES - Several goals proposed by several groups coincided. I think that is a good sign.

YES - Being my first symposium, I was just learning all the issues that researchers face with tapir conservation, but the goals and actions that were presented seemed reasonable to me.

YES - Too many goals were not identified as goals but as activities. However, these could be transformed into measurable goals. So, no problem.

YES and NO - I am satisfied in general. The plenary was too fast. I had observations to some activities, such as "Provide all tapir holding institutions worldwide with a prioritized list of tapir field projects needing funding". My question is who and based on what will prioritize the projects?

NO - Very heavy on the *in-situ* interests. Goals 1 (have action plans for tapir conservation and management in each country of their range) and 3 (identify research hotspots, prioritize and assign actors in each country) seemed very similar, as if #3 would already be included in #1. To our group, that seemed like a valuable waste of a top five item that could have included something like fundraising or another marketing issue.

NO - I think continuity between the groups was not as good as it may have been. The different groups took such different approaches that the results of all really cannot be integrated well. I think some of the groups sort of missed the point - or - maybe I was the one who missed the point and they had it right?!?!

NO - Some goals were not presented as goals but rather as actions, this is because facilitators were not adequately prepared.

NO - I think we all had very good and clear ideas but we did not have enough time to organize them. I think we should continue our discussions via e-mail in order to put our priorities in the right order.

7.) Do you think this workshop should have been longer?
Yes 64% - No 36%

Comments:

YES - Maybe it is important to take into account that the people the last day of symposium are really tired, for that reason I propose that this workshop should be scheduled for the beginning or middle of the symposium, and I think it should last two days.

YES - Not so much longer, but maybe spread out during a couple of days.

YES - Yes if we want to achieve good results but it could be very boring and counter productive if not well prepared.

YES - It was OK, but if it had been a bit longer we could have identified the final goals and activities (there were still quite some overlap between the identified goals and several goals at different levels). It would have been good for the participants to see the final result and to be part of that process too. I think we talk about 1 or 2 hours more. But this is just a detail. The process was very well conducted!!

YES - My suggestion is: more time for workshops, and less time for oral presentations in the next symposium.

YES - The topics required a detailed evaluation and more time was necessary.

YES - I think that the time was short. Probably one and a half days should be better.

YES - Maybe one day longer, we could have the action planning the day after the mid-conference trip, when people are re-energized and then have more paper sessions the last day.

YES - Yes, because at the end we were not able to discuss the priority goals listed by the main group in depth.

YES - Definitely. I had greater expectations for this workshop. Many things I wanted to share about the tapir status in my country had no place to be exposed, for instance. And time was really short even for what we discussed, short time even to take notes. There are so many things to discuss!

YES - It should have been a two-day workshop.

YES - Having participated in similar CBSG format workshops before, one does not normally have to do everything in 1 day, which is a bit rushed.

YES - We did not have enough time to discuss all the topics because we had to spend some time understanding and getting used to the process and the different situations.

NO - This is about the right length for a meeting of this sort. Adding another few days would reduce initial participation by driving up the cost as well as preventing some from attending due to scheduling problems (not everyone is retired like I). It would also cause some to leave early, thus defeating the purpose for developing a longer conference. We see this with AZA and TAG meetings all the time.

NO - I do not think overall more time is needed, but perhaps more time in between parts so people can organize their thoughts, write everything down etc.

NO - I think working to a tight deadline encourages everyone to get the job done more effectively.

NO - Not as it was organized. If there was tighter organization between the groups then it probably should have taken a couple of days.

NO - It was perfect.

NO - I think the length of this workshop was fine. Probably the key for good results in this time frame is a very good previous preparation from all of us. It was a good effort to send the preparation guidelines before the symposium, but in general, few people were really prepared. However, in general, I think we got good results.

8.) Have you committed to any of the tasks?
Yes 76% - No 24%

9.) What do you think we should do in order to get people to meet their commitments?

I would ask them for a monthly update. Money talks and hot air walks.

Send "friendly" reminders.

Check up on progress using and communicate the state of progress in the newsletter.

I do not think there is much one can do, except keep everyone informed of whose responsibility is to do what. That way people have to account to the group. We could also create an incentive system. If a person does the job, and does it well, they get some award, or a little gift from the TSG. Like employee of the month type stuff…

Keep a close contact to all those who have on the paper committed themselves. COMMUNICATION!!!!!!!!!!!!

Try to give everyone back up so if they end up not having enough time they can pass the task on to someone else in whole or part if need be. Also just keep reminding everyone of what they have agreed to help with.

We need to remind them periodically about those commitments (via e-mail).

Collate everyone's responsibilities and predicted deadlines and send out to all members so we all know what is expected of us and when.

Send them updates on your own work, and timeline reminders of our tasks. Call people as a follow up to an email. We all took the time and money to come to Panama to talk about tapirs. We should be able to commit to something, and something we enjoy doing. That does not seem so hard. Make it sound easy and fun, and that by helping everyone and the group out, we are helping individuals out too. And tapirs. Continually remind everyone why we are all in this together.

I think having clear and realistic (in time and scope) tasks. I think one of the problems is that during the meeting many people get excited about all the issues and commit themselves to many things, but once back home, other responsibilities and work take most of their time. For that reason, having clear and realistic tasks may help in meeting them.

I wish I knew! I think face-to-face contact makes people more amenable to getting the work done and the general enthusiasm generated by being with other like-minded people. The problem is keeping up the momentum and regular communication has to be one part of this.

We listed responsibilities for our Plans for Action, and the minutes and the plan should be distributed. Perhaps every X time send an e-mail reminding people to send a one-paragraph report about each task to the group and the Chair.

Give them the full support from the TSG in the new tasks they will undertake.

We need deadlines!

I don't know if this is possible, but find them help to get their commitments done. I know in our group it felt like a lot of the same people were getting delegated.

Sending out the finalized task with details and follow up reminders. Also, I suggest we use the TSG Website, the Tapir Conservation Newsletter and the Tapir Talk E-list to keep people informed about the TSG activities.

This is a very difficult question to answer. On my personal opinion, Patrícia Medici has been trying her best to create a strong network, but we just cannot force people to do what they do not want to do. Patrícia's hard work really inspires me. Regarding myself, I know that the TSG has a lot of work ahead, and I really want to help as much as I can, but I just do not know where to start. For example, the conservation of Malay tapirs is not one of the priorities of people living in the range countries, and frankly speaking, not even the governmental agencies in those countries are worried about the lack of awareness of this species. So, my question is, what we, as a group, should do to reach the general public? Well, it could be worse, and I think that lots of things could be done to change this situation.

I think that in general, the TSG members seem to be a pretty dedicated bunch. If there is any delay in meeting a commitment, it is often the fault of someone senior to the member concerned. In these cases a polite letter from the TSG to the person's superior, or government department, may help progress.

We need to communicate more efficiently, we need to assign responsibilities adjusted to people's time availability, and we need to direct our efforts towards high-priority actions.

10.) Did you feel you had the opportunity to voice your results, findings and opinions to your working group and to the entire group?
Yes 97% - No 3%

LOGISTICS

1.) What did you think of the mid-conference trips?
Excellent 68% - Very good 14% - Good 7% - Could have been better 11% - Poor/Inadequate 0%

2.) What did you think of the Symposium organization and logistics?
Excellent 73% - Very good 22% - Good 5% - Could have been better 0% - Poor/Inadequate 0%

Comments:

Excellent - Airport arrangements were very well done - as good as the best tour company.

Excellent - For the next symposium, we should improve in terms of starting the sessions on time.

Excellent - Everything worked very well concerning organization and logistics.

Excellent - I felt that there was always someone "looking after me". That was very good.

Excellent - I have attended about 20 or more conferences over the last several years and this was one of the most organized and well put together ones I have attended. Especially for such a small, specialized group.

Excellent - Everything worked just fine. The symposium was very well organized.

Excellent - But there was some lack of punctuality. We need to follow the timeline set out in the program.

Excellent - It is the first time I have attended a bi-lingual meeting and my lack of Spanish presented no problem at all, thanks to the translators.

Very good - Sometimes the presentations started late.

Very good - My only complaint is that simultaneous translation was not available during the final workshop.

Good - I found the inability to stick to the time schedule a little frustrating at times.

3.) How would you rate the hotel in terms of facilitating the symposium (meeting rooms, A/V equipment etc)?
Excellent 65% - Very good 22% - Good 13% - Could have been better 0% - Poor/Inadequate 0%

4.) What did you think of the cost of the symposium registration?
Very Reasonable 22% - Reasonable 51% - Expensive 24% - Too expensive 3%

Comments:

Reasonable - I am speaking from never having had attended any symposium, or paid for one, and as an American whose dollar goes a lot further than other monetary units might.

Reasonable - The cost is reasonable, considering all the logistics and organization involved. However, for many people in Latin America and probably Asia, the costs are high relative to the cost of living and the overall income rates there. I am really fortunate that the symposium organizers and my university helped me with the expenses. Otherwise, my participation would be more difficult. I am deeply grateful for this help.

Reasonable - For my situation now (and Argentinean money), it is expensive. But internationally thinking, and considering the hotel facilities and quality, it was reasonable.

Reasonable - For the accommodation itself it was expensive, but the facilities where great, so the cost benefit was OK.

Expensive - For the students it was reasonable, but for professionals it was expensive given that Latin Americans just do not have that kind of money for conference attendance.

Expensive - The fee was expensive but good value. However with the added costs of airfares it makes it difficult for some participants. I could not have afforded to attend without support of TSG. Maybe it would be a good idea to set up a travel fund for developing world attendees or to target funding opportunities, which would enable attendees to raise the money that way.

Expensive - It was expensive but fell around the same price as other conferences.

Too expensive - The fee was too expensive, especially for students.

GENERAL EVALUATION

1.) What did you think of the symposium as a whole?
Excellent 68% - Very good 22% - Good 10% - Could have been better 0% - Poor/Inadequate 0%

Comments:

Excellent - I think this is a very energized group, and one that we should be very proud of. My hat is off to the organizers.

Excellent - I had fun, learned a lot… and made new friends.

Excellent - Absolutely loved it!! I am so glad to have met everyone, and now have contacts throughout the world. If I have any questions I know whom I can contact.

Excellent - But the days were very long (all day).

Excellent - I think we had a great meeting.

Excellent - To gather tapir people is the best thing in order to get energy and be stimulated.

Excellent - Just beginning in the field, I saw the symposium as completely positive.

Excellent - It was better than the First Symposium in Costa Rica. TSG has expanded in many different ways and has been working as a team. The initiative of establishing the International Tapir Genetics Project, and the fact that Gilia Angell has been building our new TSG Website will be very important for all of us.

Very good - I was surprised by the lack of handouts, and I mentioned why earlier. But then handouts are copies, and copies cost money. There were not as many questions asked after presentations, either. Often someone would think of a question, but decide to ask it later, personally. Many questions deserve to be heard by everyone, because more than one person could be thinking it. Perhaps having slips of paper for question writing could be provided on each table in addition to the water. That way, people can jot down their questions when they think of them while someone is still talking. By passing the slip of paper to the front, they would not have to stand in front of everyone and ask it, which could be difficult if they are timid.

Very good - It was very good, but I think that many of us thought that the workshop would involve actual discussions about the topics and not only presentations. I believe that having discussions would have enriched the symposium.

Very good - We need to foster and promote the participation of more Latin-American people (scientific community, NGOs, Governmental Agencies etc).

Good - I enjoyed it and learned a lot but the days were long which made it tiring especially as time keeping left a lot to be desired.

2.) What did you think were the strengths and weaknesses of the symposium in terms of contributing to tapir conservation?

1. Strengths: The TSG became stronger, and the group is represented by many different backgrounds (veterinarians, biologists etc) and many different points of view; the themes and topics covered were wide and we had many opportunities to speak with many different people. Weaknesses: We always need to improve. I think it is necessary to have more contacts with conservation organizations, universities, NGOs etc, aiming the establishment of new projects and more actions towards tapir conservation.
2. Weakness: I would have liked to see more participation by Asian members of TSG although we did have a PHVA there last summer. Regardless, this was a different format and having someone from Thailand and Indonesia there would have been useful. It would also be useful to have more zoo people from range countries participate. AZA and EAZA members could probably help them if there were more contacts.

3. Strengths: We are one solid group with an excellent leader "Patrícia Medici".
4. Strengths: The number of countries represented. I think that contributes to a more unified conservation effort in conservation. Weaknesses: The lack of more Brazilian participants.
5. Good for awareness not sure how much has been achieved with regard to practicalities.
6. Strengths: Development of the necessary networks, and getting to know what is going on for the different species.
7. Weaknesses: I would have liked to see more Panamanians (researchers and students) participating in the symposium. More promotion and involvement with local universities was needed.
8. Strengths: Exchange of ideas among specialists from around the world. Weaknesses: The language (English) is always a wall.
9. Strengths: Simply getting everybody together in one place is very important and will make a big difference to the work of the TSG.
10. Weaknesses: Any results from this symposium will be slightly biased towards The Americas due to the lack of contribution from Asia.
11. I do not think the symposium had any weaknesses. We were all there for the same objective, which is tapir conservation. Getting to exchange ideas and knowing what other tapir conservationists are doing motivates you to promote conservation in your own field site. The strength, energy and joy of every participant were fantastic. This motivation, together with the excellent symposium itself, only contributed to tapir conservation.
12. Strengths: Design of a very well structured model for the implementation of action plans. Weaknesses: The symposium did not foment in great measure the investigation in other Central American countries.
13. Weaknesses: It was interesting to see that there was a lot of research being done in Central and South America, but not that not much research is being done at the present moment on Malay tapirs. Therefore we cannot be certain how endangered these tapirs are.
14. Strengths: The symposium put together many different people and interests. It stimulated the establishment of partnerships and new projects. Also, the symposium was good to identify new TSG members. Finally, another strength was the fact that tapir action planning was discussed.
15. Weaknesses: Lack of participants from Nicaragua, Honduras and more people of Guatemala.
16. Strengths: I think it is always good to bring people together who are interested in a common cause so they can share information and keep each other motivated. I liked the "how to" sort of presentation that was done in the fundraising session and I wonder if other sessions similar to that would be useful. Even basic stuff like how to catch different species of tapirs in different habitats, how to install radio telemetry collars so they do not fall off or kill the animal etc. A "lessons from the field" sort of thing so we can all learn from each other and not have to repeat the same mistakes.
17. Strengths: The presence of important stakeholders (donors, researchers, conservationist etc). Weaknesses: The almost complete lack of new people that could have gotten interested in doing research and conservation.
18. Strengths: To provide the opportunity of getting many people interested or working with tapirs together, to share their experiences, successes and failures. All of us learned a lot from each other. Also, getting in contact with each other helps to increase mutual cooperation. All these factors together contribute to tapir conservation at different scales. Weaknesses: Lack of participation of field researchers from other tapir range countries, such as Peru, Ecuador, Bolivia, and several Central American countries. Hopefully their participation will increase for the next symposium.
19. Strengths: The presence of all tapir experts, ranging from researchers, *in-situ*, *ex-situ*, veterinarians etc.
20. Strengths: The symposium allowed us to get to know each other, which is critical. It also helped to create alliances and best of all, friendship. It provided ideas for collaborations, stimulating each other. It was an excellent exchange of experiences. Weaknesses: The TSG Plans for Action dynamics and timing. The workshop resulted in a probably too long list of goals and actions without deep discussions. Regarding the auction, I think it would be nice if we could invite important people from the place where the symposium is held, so the money is not all the time coming from tapir people.

21. Strengths: The varied coverage the symposium gave to so many different arenas of tapir conservation. Weaknesses: Each day was so packed with talks that it was hard to get a break and it got draining at times. Perhaps not go so late into the night with paper sessions?

22. Strengths: Helpful for those working in the field and are able to identify common problems and possible solutions. Weaknesses: The problem, which is not related to the symposium but is an identified concern for TSG is the lack of work being done for the Malay tapir.

23. Strengths: It seems to me that this conference is in the right path and is promoting a better development of tapir conservation efforts.

24. Strengths: Very knowledgeable speakers and attendees. Weaknesses: Lack of punctuality.

25. Strengths: It gave people the opportunity to meet a lot of researchers working with tapirs. We had the chance to let each other know about our efforts in tapir research and conservation. The conference gave us the chance to start collaborative efforts for the cause of tapirs. Weaknesses: I think that the weaknesses are not inherent to the symposium but to the participants. I want to say that after the end of the symposium, enthusiasm decreases, but it seems normal. It is our responsibility to keep each other motivated. We have to answer e-mails!

26. Strengths: The symposium provided people with the chance to meet each other. Weaknesses: Many projects presented during the conference were still in the initial steps, lacking medium- and long-term data and results.

27. Strengths: Meetings of this nature make one major contribution, and that is that they send people back to work recharged with a will to accomplish more and armed with new ideas and perspectives. Communicating by email is one thing, but being able to put a face to a name is important when one is trying to establish or cement partnerships. Weaknesses: There is a strong Neotropical emphasis, which in some ways is understandable given the origin of most of the membership and the fact that 3 out of 4 tapir species come from this region. The lack of more Malay tapir presentations is to be regretted, but I do understand why that is so. I think that there is a real need for an updated Tapir Action Plan, but as I have said before, the time allotted to even put together a comprehensive outline of tasks and goals was too limited. But it was still a valuable experience.

28. Strengths: In general terms, everybody seemed to have a great disposition to contribute to tapir conservation and the symposium reflected this energy. The different working groups established for the TSG Plans for Action Workshop created a very nice working environment, which is important to move on with the investigations. A cordial environment is fundamental to stimulate people to keep working.

29. Strengths: The fact that we were able to include more veterinarians in the TSG Veterinary Committee. The creation of the TSG Genetics Committee, which is a great thing for the TSG. The establishment of international cooperation between professionals and projects on tapirs. Weaknesses: We should give more attention to the Poster Session, which I think was under utilized.

30. Strengths: This symposium is a unique opportunity to meet people from all over the world and share experiences and opinions about tapir conservation. The enthusiasm shared during the conference is very important to foster and continue the tapir conservation initiatives in each country. The symposium provides the opportunity to plan for the organization of other events, and for the establishment of agreements and combined efforts on the regional, national and international level. The symposium leaves something "behind" in the country where it is held, such as the new tapir exhibit at the Summit Zoo. Weaknesses: The costs for participation are very restrictive for a lot of people from developing countries. The publication of abstracts only in English is very limiting. It does not seem to be a very important detail, but most people in Latin America speak Spanish, including environmental governmental agencies representatives.

31. Ideas for improving the symposium: 1.) Expand the invite list: invite scientists from all area universities and research institutions. Include an announcement about the symposium in any applicable scientific journals. We should budget for that. We should make a print advertisement for the next one, to distribute to print publications; 2.) More auction items of an artistic nature - framed copies of Carolina Villega's tapir portrait, dinners at local restaurants, offers by Diego Lizcano, Denis Torres, Charles Foerster or someone for an "up close and personal" experience with wild tapirs. Think "Tango and Tapirs in Buenos Aires with Dr. Viviana Quse". Stuffed animals, photo prints, nature photo books, art from artists local to tapir countries, not just knick-knacks from range countries. Art generated by someone within the group is a sure bet. And the higher the quality, the better, more funds generated. Other ideas: frequent flier miles, amazon.com gift certificates, and children's books featuring tapirs; 3.) Think of distributing an evaluation form the morning of the last day, or right before releasing everyone to the final banquet. People will not spend as much time with it as this one, but it will be a fresh impression of the event that you can take with you. Also, people can make anonymous comments.

3.) After experiencing this symposium and having your own opinion and impressions, would you consider attending the Third International Tapir Symposium in 2006?
Yes 100% - No 0%

Comments:

Absolutely. I seem to work harder now than when I was working. Certainly my travel schedule now far exceeds what I experienced three years ago. If you can use me, and get me there, I am ready and willing.

Definitely, I consider attending the next symposium. The TSG work is getting stronger with the symposium. It is a great opportunity for all the people interested in tapir conservation, working from different disciplines and approaches, to get together in this meeting. I would like to congratulate all the organizers for their outstanding job with this symposium. This was an excellent meeting!!

Yes, but I would like to see summaries of presentations to see whether it is worthwhile for me to attend the whole meeting.

Certainly!! No doubt!!!

Cannot wait. See you all in Mexico 2006!

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