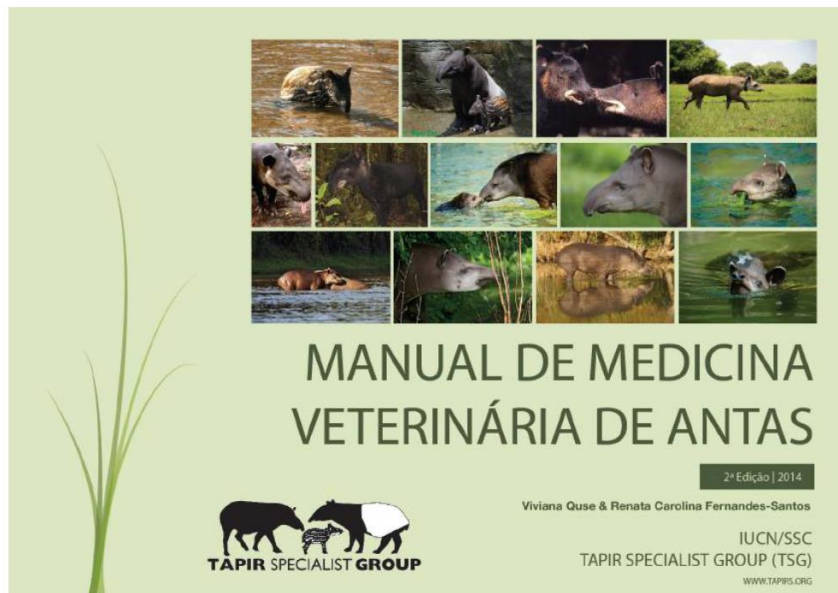




Wildlife Disease Association (WDA)
Small Grants Process 2016-2017
FINAL REPORT

Project Title

Translation, Editing and Distribution of the IUCN SSC Tapir Specialist Group (TSG) TAPIR VETERINARY MANUAL (2014) in Portuguese and Spanish





**Wildlife Disease Association (WDA)
Small Grants Process 2016-2017
FINAL REPORT**

Project Title	Translation, Editing and Distribution of the IUCN SSC Tapir Specialist Group (TSG) TAPIR VETERINARY MANUAL (2014) in Portuguese and Spanish
Project Leader	Renata Carolina Fernandes Santos, DVM, MSc Co-Coordinator (IN SITU), Veterinary Committee, IUCN SSC Tapir Specialist Group (TSG) Member, WDA and WDA-Latin America (WDA Section Affiliation)
Collaborators	Viviana Quse, DVM, MSc (Argentina) Co-Coordinator (EX SITU), Veterinary Committee, Coordinator, Zoo Committee, IUCN SSC Tapir Specialist Group (TSG) Patrícia Medici, PhD (Brazil) Chair, IUCN SSC Tapir Specialist Group (TSG)
Location of Work	Curitiba, Paraná, BRAZIL
Applicant's Mailing Address	Rua João Alencar Guimarães, 2580, Apto 501, Torre D Bairro Campo Comprido City: Curitiba State: Paraná Country: BRAZIL Postal Code: 81220-190
Phone #	+55-41-99635-6200
E-mail	renatacfsantos@gmail.com
Amount Granted	US\$ 2,175.00
Total Budget	US\$ 2,175.00
Start Date	November 2016
Completion Date	February 2018

BACKGROUND INFORMATION

There are four living species of tapir worldwide: *Tapirus pinchaque*, *T. bairdii*, *T. indicus*, and *T. terrestris*. The IUCN Red Book lists the four species as either vulnerable or endangered. 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 is also endangered. The Malayan tapir, *T. indicus*, is also endangered in Sumatra and mainland Malaysia. The lowland tapir, *T. terrestris*, is currently listed as vulnerable to extinction. The tapir is a keystone, umbrella species that plays a critical role in shaping and maintaining biological diversity. Local extinction or population decrease may trigger adverse effects in the ecosystems, causing disruptions of some key ecological processes such as seed predation and dispersal, and eventually compromising the long-term integrity and biodiversity of the ecosystems. Additionally, tapirs have been widely recognized as a landscape species, which means that they can help us investigate and interpret the interrelatedness of habitat types and demonstrate the importance of protecting different environments in a given biome. The proximity of tapirs to domestic livestock in several parts of the species distribution area creates opportunities for disease transmission, and tapirs could be important sentinel species to give early warnings about current or potential negative trends and environmental impacts (Medici et al. 2014).

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 TSG strives 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 through strategic action-planning in countries where tapirs live, information sharing, and through educational outreach. Currently, the TSG has 130 members, including field researchers, educators, veterinarians, governmental agencies and NGO representatives, zoo personnel, university professors and students, from 28 countries worldwide (Argentina, Australia, Belize, Bolivia, Brazil, Canada, Colombia, Costa Rica, Denmark, Ecuador, France, French Guiana, Germany, Guatemala, Honduras, Indonesia, Malaysia, Mexico, Myanmar, Republic of Panama, Paraguay, Peru, Taiwan, Thailand, The Netherlands, United Kingdom, United States, and Venezuela). Members of the Tapir Specialist Group come from diverse areas of expertise and are encouraged to participate in the process of preparing and publishing action plans. Action plans are designed to promote conservation action financially, technically, or logistically, influencing key players in the local, national, regional, and global levels. In order to better implement the goals of the Tapir Action Plan, the TSG has formed subcommittees. The TSG Veterinary Committee is continuously working to encourage the participation of veterinarians in conservation activities worldwide, especially through the promotion of a network of professionals and students where they can share, disseminate and apply their knowledge, and have capacity building initiatives.

One of the actions proposed by the TSG Veterinary Committee as part of the TSG Strategic Plan 2015-2017 was to translate, edit and distribute the Tapir Veterinary Manual in Portuguese and Spanish, regarding the lack of knowledge about health assessments to correlate veterinary issues between in-situ and ex-situ. The TAPIR VETERINARY MANUAL (2014) is an updated version of the first TAPIR FIELD VETERINARY MANUAL published by the TSG in 2007. Several veterinarians, biologists, nutritionists, reproduction physiologists and researchers reviewed and made contributions to this document based on their in-situ and/or ex-situ experience with the four tapir species. The 13 chapters and several appendixes in this manual offer valuable information on many important topics for veterinarians working not only with tapirs but with wildlife worldwide, including: management in the wild and in captivity, conservation medicine, selected infectious agents and diseases, collection of biological samples, laboratory techniques, field techniques, anesthetic protocols, treatment protocols and guidelines for medical and nutritional care. The translation of this manual enables further distribution of information worldwide.

ORIGINAL OBJECTIVES

The Veterinary Committee of the IUCN SSC Tapir Specialist Group (TSG) aimed to translate and edit the **IUCN SSC Tapir Specialist Group (TSG) TAPIR VETERINARY MANUAL (2014)** to Portuguese and Spanish, to create a digital version (available as PDF and e-book), and to broadly distribute the document to WDA and TSG members and non-members worldwide via electronic media, free of charge.

The main goal is to distribute wildlife health information to reach out to under-represented countries and spread awareness about how wildlife health affects tapir conservation.

PROJECT TIMELINE

Translation of the manual to Portuguese and Spanish	November 2016 – June 2017
Editorial process	July - September 2017
Publication and distribution	October - December 2017
Final report written	January - February 2018

ADMINISTRATION OF FUNDING AND DETAILED BUDGET

The IUCN SSC Tapir Specialist Group is not a legal entity and so in order to manage funds from this proposal we collaborated with the Houston Zoo in Texas, USA. The Houston Zoo is one of the long-term partners of the TSG. The funding from this grant was received in November 2016. There was no charge of overhead fees.

Volunteer members of the Veterinary Committee of the IUCN SSC Tapir Specialist Group performed part of the process of organizing texts, pictures, subtitles, tables, and reviewing the document. The editorial process was performed by the same Brazilian designer in charge of the final layout of the English version of the manual, published in 2014.

BUDGET US\$ DOLLARS		
BUDGET ITEM	Granted from WDA Small Grants 2016	Total Cost
Translation		
Translation to Portuguese (\$5/page @ 150 pages)	750	750
Translation to Spanish (\$5/page @ 150 pages)	750	750
Sub-Total in US Dollars:	1,500	1,500
Editing (Layout)		
Editing - Portuguese version	275	275
Editing - Spanish version	275	275
Sub-Total in US Dollars:	550	550
Distribution		
Websites	-	-
E-mail	-	-
iBook Store	125	125
Sub-Total in US Dollars:	125	125
Total in US Dollars:	\$2,175	\$2,175

ACCOMPLISHMENTS

The first version of the veterinary manual was published in 2007 (containing 11 chapters distributed on 58 pages, without pictures or professional editing), and is available for download through the TSG website in English, Portuguese and Spanish. The second edition was published in English in 2014, presenting 13 chapters on 150 pages (with 51 pictures, 15 photo galleries, 10 tables, and 3 appendixes), as follows:

- Chapter 1: Tapir Health and Conservation Medicine
- Chapter 2: Tapir Anatomy
- Chapter 3: Capture Methods
- Chapter 4: Chemical Restraint
- Chapter 5: Clinical Evaluation
- Chapter 6: Collection, Handling and Storage of Biological Samples
- Chapter 7: Hematology and Blood Biochemistry
- Chapter 8: Diagnostic for Selected Infectious Agents
- Chapter 9: Reproduction
- Chapter 10: Necropsy
- Chapter 11: Interventions in Individual and Population Health
- Chapter 12: Husbandry Guidelines
- Chapter 13: Treatment and Management Protocol

Thanks to the WDA Small Grants program, we were able to develop and make available the Portuguese and Spanish versions of the second and updated edition of the **IUCN SSC Tapir Specialist Group (TSG) TAPIR VETERINARY MANUAL (2014)**. Please see both versions attached to this report as PDF files:

- TSG MANUAL DE MEDICINA VETERINÁRIA DE ANTAS_2nd Edition_Quse and Fernandes-Santos 2014 **PORTUGUESE**
- TSG MANUAL VETERINARIO DEL TAPIR_2nd Edition_Quse and Fernandes-Santos 2014 **SPANISH**

Up until now, both Portuguese and Spanish versions of the manual have been distributed free of charge in the following ways:

- 1- All 110 participants of the Seventh International Tapir Symposium, which was held in Houston, Texas, USA, in November 2017 received copies of the Manual in a flash drive as part of the participant's kit;
- 2- All 25 members of the TSG Veterinary Committee have received a copy of the Manual by e-mail and are collaborating with the distribution of the information;
- 3- Both versions of the Manual are available online as e-book for download in the iBook Store and, so far, we have recorded more than 80 downloads;
- 4- We are in the process of making both versions available for download in the recently updated TSG website;
- 5- The Latin American Association of Zoological Parks and Aquariums (ALPZA) is raising awareness by their Facebook page, and both Portuguese and Spanish versions of the manual are available for download on the ALPZA website (<http://www.alpza.com/acceso-miembros>);
- 6- Both versions are also available for free download on e-book websites, as <http://www.buildwithcare.eu/book/943823982/download-tapir-veterinary-manual-zafigner-design-e-comunica-o.pdf>;

7- One of the regular activities of the TSG Veterinary Committee is to efficiently respond to different demands received by a network of veterinarians, especially regarding tapir issues in captivity such as husbandry, anesthesia, health care, hand rearing orphan tapir calves, nutrition, treatment and management protocols. We often receive questions from tapir holding institutions in Latin America and send them the translated versions of the manual by e-mail, which has proved extremely useful for many professionals.

HOW ACCOMPLISHMENTS FURTHER THE WDA MISSION

The wide distribution of science-based information regarding wildlife health is on top of the goals of WDA. The translation of the **IUCN SSC Tapir Specialist Group (TSG) TAPIR VETERINARY MANUAL (2014)** into Portuguese and Spanish allows to reach students and professionals in Latin American countries, who would not otherwise have access to such information. The targeted public will be largely benefited by the manual's contents. Our hope is that this document will be helpful to all professionals working not only with tapirs, but with many wild species around the world, and will contribute to the conservation of wildlife and their remaining habitats. This proposal certainly enhances the Mission of the WDA; "to acquire, disseminate and apply knowledge of the health and diseases of wild animals in relation to their biology, conservation, and interactions with humans and domestic animals".

CITED LITERATURE

- Medici EP, Mangini PR & Fernandes-Santos RC. 2014. Health Assessment of Wild Lowland Tapir (*Tapirus terrestris*) Populations in the Atlantic Forest and Pantanal Biomes, Brazil (1996-2012). In: Journal of Wildlife Diseases, 50(4):817-828.
- Quise V & Fernandes-Santos RC (Eds). 2014. Tapir Veterinary Manual. 2nd Edition. IUCN/SSC Tapir Specialist Group (TSG). 155p.