BIOAMAZON NEWSLETTER

BIOAMAZON PROJECT

Conservation of species threatened by unsustainable trade

ACTO
Amazon Cooperation Treaty Organization

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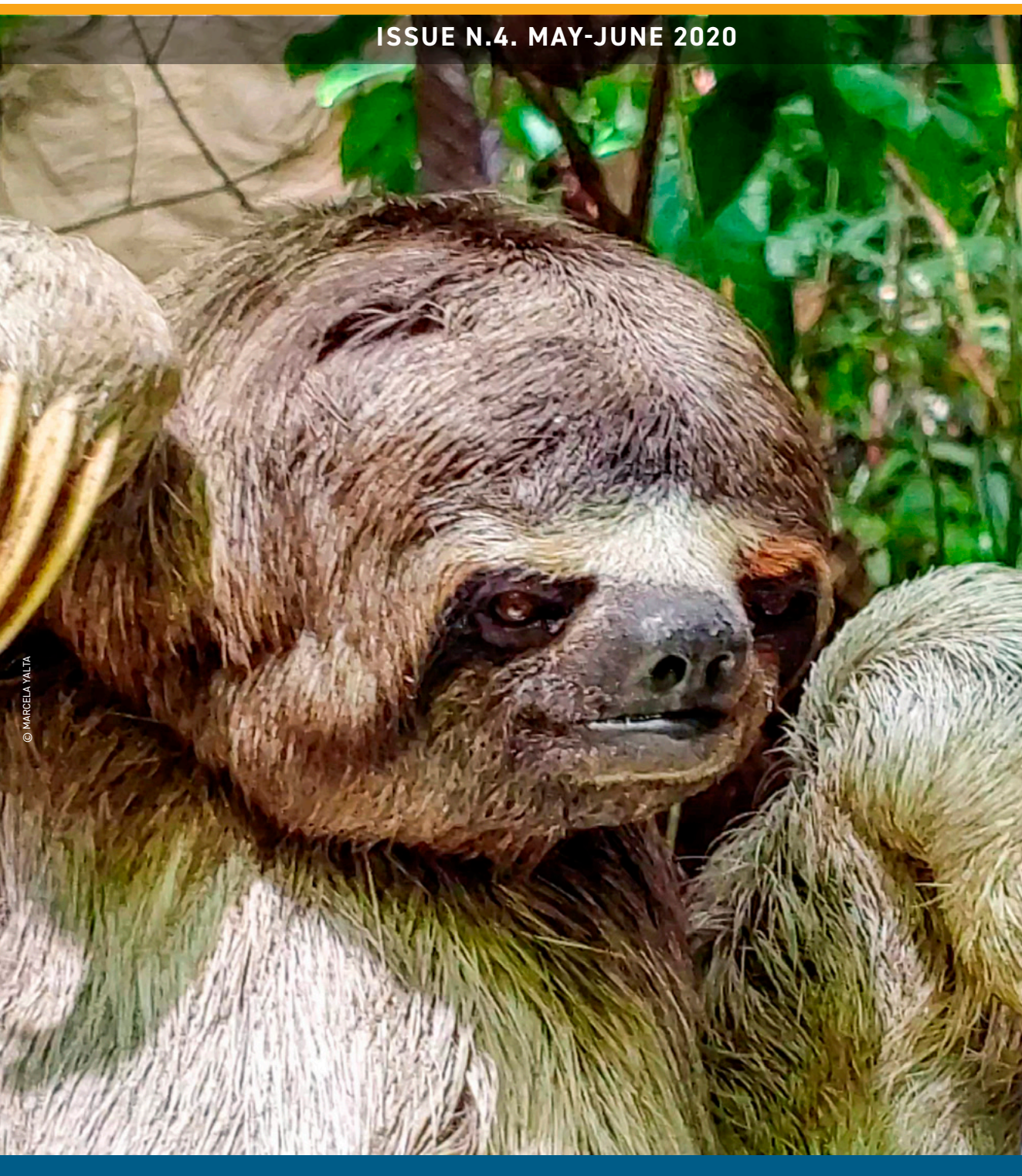

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Increases international protection for Cedar

Amazon Rescue Center rescues and frees a Brown-throated Sloth

This is the Bioamazon Project Newsletter, of the Amazon Cooperation Treaty Organization (ACTO). It is published every two months to disseminate the actions and results of the Project and its partners.

BIOAMAZON PROJECT
Conservation of species threatened by unsustainable trade

ACTO
Amazon Cooperation Treaty Organization

german cooperation
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Dear all,

The Permanent Secretariat of the Amazon Cooperation Treaty Organization (PS/ACTO) is pleased to present this new format for the Bioamazon Project bulletin to its supporters, partners and all interested parties. Through this channel, we will keep you informed about part of our activities, results and impacts.

As an intergovernmental cooperation organization based on the Amazon Cooperation Treaty, we provide a forum for dialogue and seek the harmonious and sustainable development of the Amazon region in the Member Countries - Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela.

Our objectives are, through technical and financial cooperation, to reduce asymmetries between countries and to promote the convergence of public policies and economic and social inclusion, with unrestricted respect for the sovereignty of Member Countries over their territories, ecological wealth and diversity of cultures and peoples of the Amazon.

With a regional presence in the Amazon Basin, the Bioamazon Project is the result of a financial cooperation agreement between the German government and the Permanent Secretariat of ACTO through the German Development Bank (KfW). More information can be found on the ACTO website

Follow us on this journey through the Amazon, getting to know the work being carried out by the Bioamazon Project to support Amazonian countries in protecting their biodiversity, especially species threatened by trade (CITES species).

Good Reading,

Alexandra Moreira

General Secretary
Permanent Secretariat/Amazon Cooperation Treaty Organization
(PS/ACTO)

Increases international protection for Cedar

CITES Permit to be required for international timber trade

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The characteristics of the wood such as high natural resistance, accentuated brightness and pleasant smell make Cedar a highly sought after timber forest resource for civil construction and furniture manufacturing, among others.

*The change in classification to Appendix II extends the control to require the CITES Permit for all species of the **Cedrela** type.*

As of August this year, the commercialization of wood of the *Cedrela* (*cedar*) type has to comply with requirements established in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in order to increase the control of exploitation to ensure the survival of the species.

The characteristics of the wood such as high natural resistance, accentuated brightness and pleasant smell make Cedar a highly sought after timber forest resource for civil construction, furniture manufacturing and musical instruments, among others. There are 17 species of the *Cedrela* type in the world, 11 of which are found in the Amazon Region.

Some Cedar species were already listed in CITES Appendix III, such as *Cedrela odorata* (pink *cedar*), and the change in classification to Appendix II extends the control to require the CITES Permit for all species of the *Cedrela* type.

Cedar in Amazonian countries

PLURINATIONAL STATE OF BOLIVIA

Bolivia has five species of *Cedrela* according to the Catalog of Vascular Plants of Bolivia (Jörgensen et al. 2014). These species are *Cedrela angustifolia*, *C. balansae*, *C. fissilis, C. odorata* and *C. saltensis* and they occupy a wide distribution in the forest ecosystems of the country.

A diagnostic study on the population status of cedar (*Cedrela* spp.) in Bolivia was conducted in the 2012 government, which establishes basic planning elements for in situ and ex situ conservation of tropical cedar forests (*Cedrela angustifolia*, *C. fissilis* and *C. odorata*) at the national level. The diagnosis mentions that cedar species are naturally distributed in the main ecoregions of the country: Amazon, Yungas, Tucuman-Bolivian Forest and Chiquitano Dry Forest, among others, which allows maintaining its genetic viability. On the other hand, it was also observed that cedar species are acquisitive

species (opportunistic, generalist and pioneer, with high adaptability and elasticity) and this allows them to occupy new niches in fallow land, secondary forests, 'chaparrales', roads, among others. Considering all these attributes and identifying the population status of cedar species, they present differences in their distribution: *C. odorata represents a distribution and high density in wet to rainy seasons, while C. fissilis* is associated with disturbed or regenerative sites. *C. angustifolia* (= *C. Lilloi*) is located especially in southern Bolivia, occupying the forests in the Bolivian ecoregions.

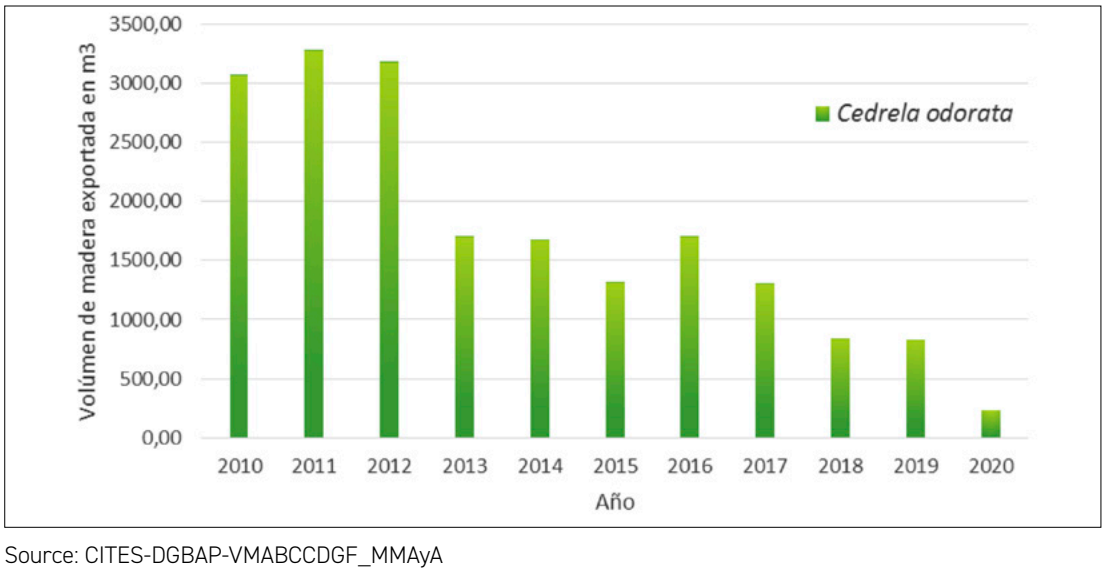
According to the Red Book of Threatened Plants of the Bolivian Plains (MMAyA, 2020), which compiles information on 300 species of plants native to the Bolivian plains, including their uses and risk of extinction, the species *C. odorata* (pink *cedar*) is widely distributed in Bolivia. Its main threats are agricultural expansion, illegal logging, habitat alteration and degradation, and it is classified in the endangered category (EN).

The species *C. fissilis* (white *cedar*), also widely distributed in Bolivia, occurs in the Bolivian Amazon, in the department of Pando. Currently, it is threatened by agricultural expansion, illegal logging, and habitat alteration and degradation due to land use change. Its threat category is vulnerable (VU).

Considering the decision issued at CITES COP 18 to include cedar in Appendix II, Bolivia is making it possible to issue a Non-Detriment Findings (NDFs) with the information held by the Forest and Land Control and Social Control Authority (ABT), an entity that approves the management and sustainable use of timber plans. Likewise, Ministerial Resolution No. 42/2020 was issued, which approves the Regulation on the Restriction and Control of Wildlife Trade, a norm that regulates wildlife trade in the Plurinational State of Bolivia, under Supreme Decree No. 3048, which establishes the administrative procedures for the protection of wildlife of the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

With regard to data on the issue of CITES Certificates for the export of *Cedrela odorata*, the records for the last two years (2018-2019) show a volume of 841 m^3 and 829 m^3, respectively (Figure 1), which means an economic movement in the approximate amount of between 800 thousand and 900 thousand dollars.

FIGURE 1. Export volume in m3 of cedar from 2010 to 2019, according to the issuance of CITES certificates.



Source: CITES-DGBAP-VMABCCDGF_MMAyA

In the Plurinational State of Bolivia, the CITES Administrative Authority is the Vice Ministry of Environment, Biodiversity, Climate Change and Forest Management and Development, which through the General Biodiversity and Protected Areas Administration, the General Forest Management and Development Administration and the National Fund for Forest Development (FONABOSQUE) promotes the development of studies on density and population structure, the effect of forest exploitation on the natural regeneration of cedar (*Cedrela spp.*), mahogany (*Swietenia macrophylla*) and pau-santo (*Bulnesia sarmientoi*), to obtain more evidence of cedar population status and thus be able to define policies for their use and action plans for species conservation, prioritizing regions with vulnerable and/or threatened populations.

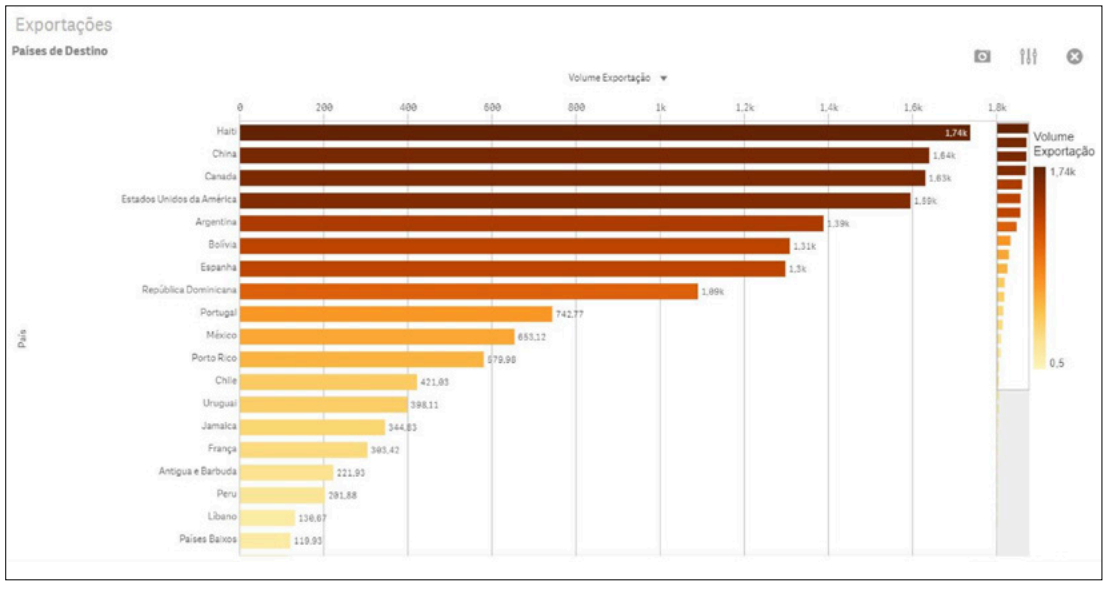
BRAZIL

According to the Foreign Trade Coordination (Comex) of the General Coordination for Monitoring the Use of Biodiversity and Foreign Trade of the Brazilian Institute of Environment and Natural Resources (Ibama), the change of classification of the *Cedrela* type to Appendix II will not bring much difference in relation to the control of international trade of species in relation to what is already done. The species C. odorata, which is already listed in Appendix III, is the most exported by Brazil. The other species of the type are subject to IBAMA control when destined for export and inclusion in Appendix II will only add the need to issue the CITES Permit.

The mechanisms available to Ibama for controlling forest exploitation in Brazil include the Sinaflor System - which controls the origin of Brazilian forest exploitation, as well as all transportation, storage, conversion and export of native timber products in national territory. In addition, SisCITES controls the export, re-export and import of parts, products and by- products of the Brazilian biodiversity.

The four countries that most import wood of the *Cedrela type* (*Cedrela Odorata*, *Cedrela fissilis*, *Cedrela spp.* - system data, declared by the users) from Brazil are Haiti, China, Canada and United States, as shown in Figure 2.

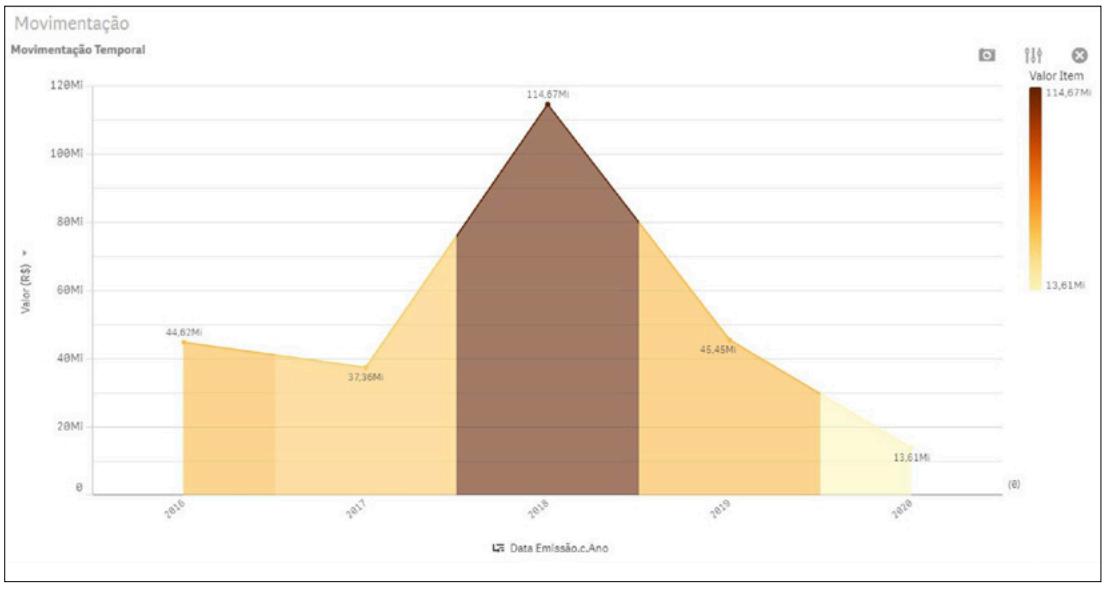
FIGURE 2. Export volume of Cedar from Brazil, by importing country.



Source: Foreign Trade Coordination (COMEX) / General Coordination for Monitoring the Use of Biodiversity and Foreign Trade / Ibama

In terms of amounts, *Cedrela exports* generated the largest volume of resources in 2018, equivalent to US$ 21.6 million[1] (Figure 3).

FIGURE 3. Monetary volume generated with the export of Cedar by Brazil.



Source: Foreign Trade Coordination (COMEX) / General Coordination for Monitoring the Use of Biodiversity and Foreign Trade / Ibama

When the PAU-Brazil Single Consent Platform is available, the issue of the CITES Permit will occur concomitantly with the consent of the operation in the Single Foreign Trade Portal (SISCOMEX).

The possibility of creating a system for monitoring the populations of the native timber species listed in the CITES appendices is being evaluated between Ibama, the CITES Administrative Authority in Brazil, and ACTO through the Bioamazon Project.

GUYANA

Guyana is preparing for the implementation of CITES in relation to *Cedrela spp.* by having a system where exporters of *Cedrela* from Guyana will now have to obtain an export permit prior to exporting this species.

The government of Guyana is constantly conducting studies in relation to *Cedrela* spp. directly or indirectly through the University of Guyana and the Guyana Forestry Commission. Distribution and species population of *Cedrela* are monitored through inventory and production databases managed by the Guyana Forestry Commission. The information in the context of exploitation and trade of *Cedrela* species can be accessed from the Guyana Forestry Commission website, www.forestry.gov.gy.

The Guyana Forestry Commission (GFC) is responsible for advising the subject Minister on issues relating to Forest Policy, Forestry laws and regulations. The Commission is also responsible for the administration and management of all State Forest land. The work of the Commission is guided by a National Forest Plan that has been devel-

1 Amount in Real (R$ 114.6 million) converted on June 24, 2020 at an exchange rate of 1 US$=R$ 5.31.

oped to address the Forest Policy. The Commission develops and monitors standards for forest sector operations, develops and implements forest protection and conservation strategies, oversees forest research and provides support and guidance to forest education and training. The GFC is governed by a board of directors appointed by the President. The board is responsible for the performance of the functions conferred on the Commission by the Act.

PERU

In Peru, there are 10 of the 17 *Cedrela* species in the world, six of which have their timber commercialized and three of which are object of international trade - *C. odorata, C. montana* and *C. fissilis*.

Peru is one of the countries that also had the *Cedrela* type included in Appendix III, which already highlighted the need to pay more attention to the conservation of the species. According to the Peruvian Ministry of the Environment (MINAM), in this context, control and traceability measures based on eye inspections have been adopted for 100% of the stocks declared in the recovery plans.

On the other hand, MINAM, which is the CITES Scientific Authority in the country, has developed support material for the identification of *Cedrela* species through the use of anatomical (wood) and dendrological (standing tree) keys. Studies were also made on the recovery of the species considering the natural regeneration capacity in management areas and outside them. MINAN is currently developing studies focused on analysis of requests for commercial exploitation in order to assess the viability of natural populations in the medium term.

According to the National Forestry and Wildlife Service of Peru (SERFOR), which acts as the Administrative Authority to incorporate the *Cedrela spp* type to CITES Appendix II, a work program was structured with the support of the SP/ACTO Bioamazon Project that included national and regional dissemination activities to disseminate the scope of the measure, through awareness lectures with the various actors related to the use, processing and commercialization of cedar wood in the main production centers of the country, such as Loreto, Ucayali, Madre de Dios and San Martín. This activity was complemented with the broadcasting of news by radio and television to reach the Amazon region.

Field verification work is also planned to be carried out to know the stocks of logs and wood processed before the cedar enters into force in Appendix II of the Convention. SERFOR, through the Sustainable Forest Heritage Management Board, has scheduled a series of activities with 10 Regional Forest Authorities to train and prepare them in the administrative processes to be developed. However, due to the effects of the national health emergency generated by Covid-19, the program has not yet been implemented. The plan is to reactivate it as soon as the country's authorities authorize the mobilization of people, especially in the Amazon.

Also as part of the process of implementing the inclusion of the *Cedrela* type in Appendix II, a study is being conducted on the situational status of the *Cedrela spp*. type in Peru, with support from ACTO, through the Bioamazon Project. The study, the first phase of which is available, made it possible to know the geographical distribution of the species, the various species of the type, as well as

the situational status of their populations. Further information may be found in the technical paper Current situation of the genus Cedrela spp. in Peru, by the Peruvian forestry engineer Roger Tarazona.

Regional Cooperation

The regional effort among countries that share the Amazon Basin for conservation and sustainable use of species of the *Cedrela type* is very important and can be even more integrated.

Regional cooperation can enable the exchange of information on the conservation status of the species in each country, the regional dissemination of population and distribution studies of the species in the Amazon, and scientific cooperation aimed at broader territorial and temporal studies.

Another important aspect in which the various countries would benefit would be in the development of forestry techniques, given the importance as high-quality wood for special uses in carpentry and decorative facets, to ensure the restocking and survival of the species. This research work should be carried out simultaneously and in a complementary manner, for common use, in order to promote good management.

According to the Vice Ministry of Environment of Bolivia, another form of cooperation would be to organize a regional network to reach an agreement on traffic control systems for these timber species, and a regional incentive agreement could be generated for legal trade committed to the conservation of these species, so that trade in products would come from known areas under sustainable management and stewardship.

Similarly, it is considered important to promote incentive schemes and forest certifications that commit timber traders, pre-processed, elaborated or finished products to provide a resource with a local, national and/or international (ecological) added value, showing that their products come from managed forests and the communities prefer to use it in this way.

Additionally, a type of marking or seal may be generated for export, which would provide the possibility of generating traceability in its export, ensuring sustainable use and avoiding the trafficking of forest species.

According to the Guyana Wildlife Conservation and Management Commission (GWCMC) opinion, it is very important to have collaboration among countries to manage and minimize the illegal trade of *Cedrela*. Studies have shown that despite cooperation among amazon countries, there are still areas that are lacking pertaining to forest management.

Brazil has conducted several studies relating to *Cedrela spp*. Thus, the opportunity exists for the sharing of information and data relating to the conservation and protection of *Cedrela spp*. between Guyana and Brazil and other Amazon Basin Countries through bilateral agreements, such as the Amazon Cooperation Treaty Organization (ACTO).

According to the coordinator of the Bioamazon Project, Mauro Ruffino, the idea was initially to support the countries in the elaboration of a regional plan for cedar. However, because of the Covid-19 pandemic this will not be possible now. In its place, an

advice to countries will be proposed for the elaboration of the Ditame of non-harmful extraction (DENP) for cedar. "This is an important stage where countries can be supported at a distance and digitally to promote necessary advances," Ruffino says.

The Bioamazon Project financed the translation of the publication "**CITES Non-detriment Findings for Timber: A nine-step process to support CITES Scientific Authorities making science-based non-detriment findings (NDFs) for timber/tree species listed in CITES Appendix II. Version 3.0**" from the original in English into Portuguese and Dutch. The links to the translations are available below:

English: http://www.otca-oficial.info/news/details/889

Portuguese: http://www.otca-oficial.info/news/details/888

Dutch. http://www.otca-oficial.info/news/details/889

The Spanish version is being prepared and once completed will be published on ACTO's website.

Information and equipments

Consultancies and equipment acquisition contribute to biodiversity conservation in the Amazon Region

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To support Amazon countries to strengthen their national information systems about biodiversity, the Bioamazon Project and partner institutions in Country Members have hired consultancies to collect data, organize information and develop systems to make relevant information more accessible. Also check out the investments in equipment for the countries.

Recopilación y organización de información sobre biodiversidad

Consultorías y adquisición de equipos contribuyen a la conservación de la biodiversidad en la Amazonía

Consistent and accurate information about Amazon´s biodiversity is fundamental for conservation work involving different fauna and flora species, for monitoring processes and for the preservation of species threatened by trade.

The quality and rapid access to information about Amazon region´s biodiversity is essential for conservation. However, data is scattered, or there is a lack of information so that national institutions may have difficulty accessing a specific aspect or gaining a broader view of such data

To support Amazon countries to strengthen their national information systems about biodiversity, the Bioamazon Project and partner institutions in Country Members have hired consultancies to collect data, organize information and develop systems to make relevant information more accessible.

One example comes from Peru, where the Sustainable Conservation of Ecosystems and Species Board of the Ministry of Environment has engaged in work to consolidate information and update national lists of flora and fauna wildlife included in the CITES Convention which are therefore threatened by trade. Working on this are specialists like William Nauray Huari and Fernando Angulo Pratolongo, recently hired by the Bioamazon Project, who will be counting with support from other collaborators.

To give support to this process, the BioQual Tecnology Solutions company was also hired to edit, design and provide reports, infographs, posters and photo and illustration galleries, on CITES species. At the end of the consultancy, all information

organized and systematized will be included in the National Environmental Information System (SINIA).

The aim is to generate accurate information on the conservation status and current species distribution or to consolidate the diagnosis of species of commercial cactuses, trees and orchids, in the case of the consultancy for flora species, and birds and mammals, in the case of the consultancy for fauna species, as a tool to support the CITES species management.

The methodology will be to systematize and validate information from scientific and conservation institutions, prepare a bibliographical review and collect specialists' opinions about flora and fauna species prioritized in the country, considering taxonomy, conservation status, distribution and socioeconomic relevance as well as to identify information gaps in the needs of conservation.

Information, employment and income

One of the aspects of the projects that may go unnoticed is their capacity to impact employment and income generation in a decentralized way.

This year, between January and June, 67 new jobs in short-term consultancies were opened by the Bioamazon Project in Bolivia, Brazil, Ecuador, and Peru. The total amount of disbursements in reward for the work being done through 35 contracts adds up to U$D 853,968.00.

The consultancy contract distribution per country is 05 in Bolivia, involving 18 people; 09 in Brazil, with 16 workers; 07 in Ecuador, benefiting 17 people, and, finally, 14 contracts signed in Peru, involving 16 employees.

ACTO is also contributing for the improvement of the infrastructure and equipment availability at national partner institutions. The objective is to strengthen the information systems and knowledge management in those countries. In total, from January to June, U$D 1,114,199.10 was invested in 130 equipment acquisition processes for government institutions in Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru and Surinam.

The acquisitions that drive the economy in the countries are mainly IT equipment such as servers, routers, computers, laptops, printers, scanners, in addition to air conditioning and humidifiers. Countries also benefited from acquisitions to support research such as laboratory equipment - microscopes, freezers, refrigerators, electric generators, solar panels - and for field work - drones, cameras, camera traps, and GPSs.

According to the priority of Member Countries, ACTO aims to increase the quality and effectiveness of management and better monitor and control species of wild fauna and flora threatened by trade in the eight ACTO Member Countries. All this equipment acquired by the countries will collaborate to strengthen national information systems and knowledge management, as well as support initiatives for sustainable management and traceability of threatened species.

Coronavirus in the Amazon Region

ACTO and Amazon countries seek support from international donors to face the health emergency

© DENISE OLIVEIRA

The Permanent Secretariat of the Amazon Cooperation Treaty Organization (PS/ACTO) is inviting international institutions to collaborate with financial contributions or donations of individual protection material and hospital medical equipment destined to health units located in the Amazon Region.

Link for the document

Agenda

2020 Ebbe Nielsen Challenge

Deadline for GBIF's annual open-ended incentive prize: 27 July 2020

Applications for the Ebbe Nielsen 2020 Challenge are open. Held annually by the Global Biodiversity Information Facility (GBIF), this challenge rewards researchers who develop innovative applications or solutions in the use of data and tools available at GBIF, promoting open science.

Participants can choose to develop new applications, visualizations, methods, workflows or analyzes, often (but not always) using the GBIF API to access data.

A total of up to € 35,000 in prizes will be distributed.

Submission is made directly by candidates on the Ebbe Nielsen 2020 Challenge page.

For more information, visit: 2020 Ebbe Nielsen Challenge webpage

https://www.gbif.org/news/6GodyGUxuNbjA-y8YUr4yA7/2020-ebbe-nielsen-challenge-seeks-open-data-innovations-for-biodiversity

Bioamazon Project Opportunities

Consultancy selection opened - Guyana

ACTO opens the selection process for hiring consultancy to articulate and strengthen the **National Biodiversity Information System of Guyana** and other information systems at the national level with the **ACTO Regional Observatory** in the Amazon.

Deadline for submissions is **July 10, 2020 at 6:00 p.m.** (Brasilia time).

For more information, visit
http://www.otca-oficial.info/services/details/122

Diagnostic consultancy selection - Ecuador

ACTO opens the selection process to hire consultants to carry out the **internal diagnosis for the design, development and implementation of the SIB-SUIA interconnection platform** through the creation of Web Services that allow the integration of Ministry of Environment (MAE) systems and external public and private systems.

The deadline for the submission of proposals is **July 13, 2020 at 18:00** (Brasília time).

For more information **in Spanish**, visit
http://www.otca-oficial.info/services/details/123

International public bidding opened

The Permanent Secretariat of the Amazon Cooperation Treaty Organization will receive proposals for consultancy services for **Design, development and implementation of national mechanisms/systems/processes for the electronic issuance of CITES licenses**, under Component 2" of the Bioamazon Project, which seeks the regional strengthening and harmonization of national mechanisms/systems/processes for issuing electronic permits.

The resources for contracting come from a cooperation agreement signed between ACTO and German Financial Cooperation, through KfW.

Deadline for submissions is **July 22, 2020**.

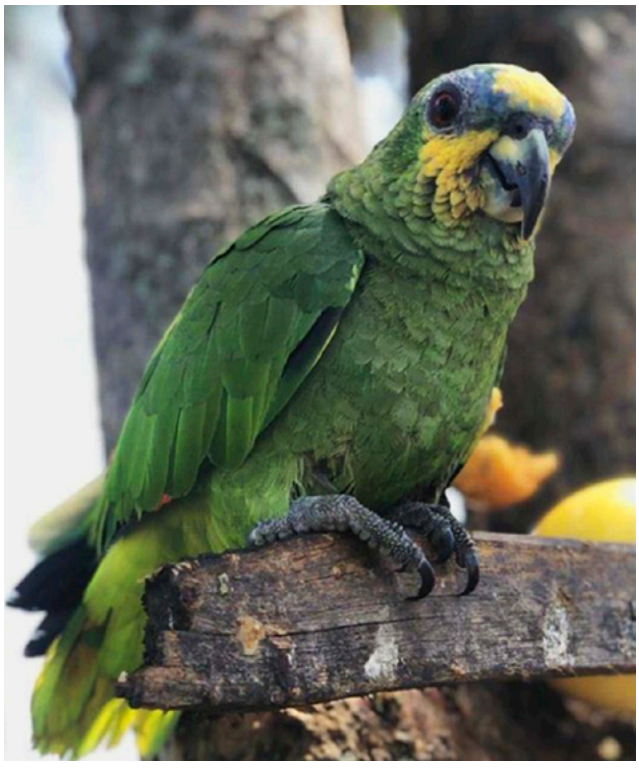
For more information, see.
http://www.otca-oficial.info/news

Guyana

Psittacine Survey carried out in Guyana

Parrots and macaws are traded in high volume from Guyana therefore the GWCMC needed to implement a management plan for the species which ensures that the population in the wild is protected from exploitation.

To this end a survey was commissioned by the Wildlife Scientific Committee, and they directed the Research Division to collect information on the parrots and macaws in the international trade.



© GWCMC

By Adonika Spellen, Research Officer, GWCMC.

The Guyana Wildlife Conservation and Management Commission (GWCMC) is the CITES implementing body in Guyana and therefore regulates the international trade of wild flora and fauna. Guyana being a party to the Convention on International Trade of Endangered Species of Wild Flora and Fauna, as well as our local legislations, gives the GWCMC the responsibility of ensuring the sustainable management of our wildlife.

To achieve this aim, the GWCMC through its Scientific Authority is obligated to create and maintain systems which would allow utilisation by communities in the vicinity of wildlife while simultaneously maintaining viable populations. This function is outlined in Article IV of the CITES Convention. Parrots and macaws are traded in high volume from Guyana therefore the GWCMC needed to implement a management plan for the species which ensures that the population in the wild is protected from exploitation. To this end a survey was commissioned by the Wildlife Scientific Committee, and they directed the Research Division to collect information on the parrots and macaws in the international trade.

This survey is a follow up on preliminary work in known trapping areas across the country done in 2015. The aim was to assess the distribution and diversity of these birds in trapping areas. Information was collected on the method of trapping, the sea-

son (whether or not trapping was restricted to certain months of the year), flight time, foraging behaviour and the economic importance of these species to persons involved in the trade. The results of this survey will be used as an effective management tool to ascertain if the volume of trade of these species as part of the international trade needs adjustments.

Trade in Guyana is regulated through export quotas. Quotas for psittacines are determined by the management board of the GWCMC based on the advice from the Guyana Scientific Committee. Quotas are based on the population density, natural history, domestic threats, and the level of trade of the species.

The research examined thirteen Appendix II parrot species in the trade as well as the Appendix I listed Scarlet Macaw (*Ara macao*). A total of five strata was surveyed. The survey areas were defined by riparian forest, savanna, swamp lands and highland forest. Species presence in the areas were linked to their association with timber and other tree species, which they utilised for food and shelter.

The objectives of the survey interpreted the information needed to provide information to prove a finding of non-detriment which would in turn determine if extraction for international trade threatens wild population.

- Estimate the density of psittacine populations in known trapping areas
- To compare the trend of catch per unit effort in known trapping areas.
- To determine environmental and anthropogenic threats faced by these species in trappingareas.
- o make recommendations on quota for local harvest and the international trade from Guyana. ternacional de Guyana.

An exhaustive literature review was conducted to understand the psittacine trade, and to a greater extent the wildlife trade in Guyana. After this process was completed, the survey areas were identified.

The survey methodology utilised the point count survey method to record information on the species. Birds were recoded within 100 m radius and the direction of flight was noted to avoid duplication of recoding. The team consisted of a scribe, identification expert, GPS and compass guide and a counter. Survey points were visited in the morning and afternoons which correlated to the flight pattern of the species. Counts were done from 06:00 h until 08:00 h and 16:00 hrs. to 18:00 hrs. These times were adjusted depending on the prevailing weather conditions such as rainfall, cloud cover and fog. After counts were completed, the team travelled to nearby villages to interview trappers to collect data on status and trends and local utilisation.

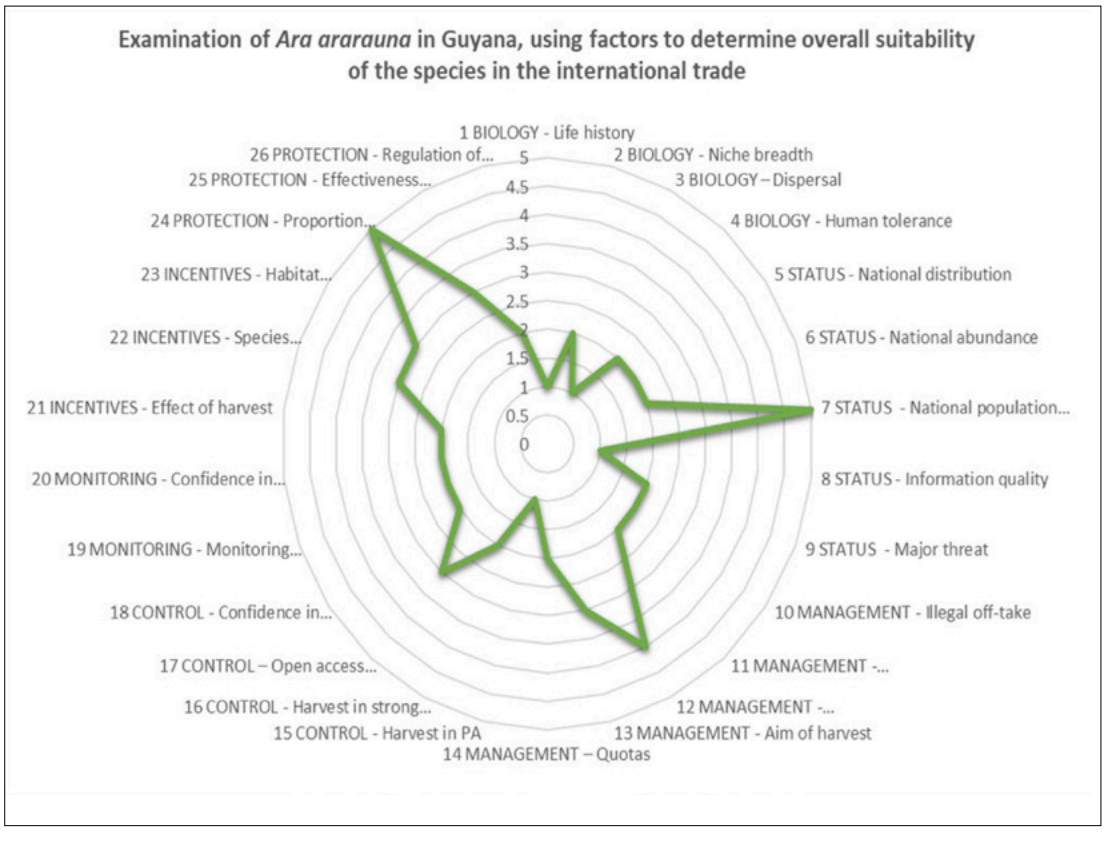
Results

The results of the survey were placed in the Distance software for analysis. Information was collected on diversity, abundance, threats and indicators of threats, roosting sites, nesting patterns, food preference, local utilisation and challenges of being a wildlife trader. A complete analysis is only available for the blue and gold macaws.

Table 1. Population estimates of Ara ararauna

	Density per km	Density	Lower Confidence Interval	Upper Confidence Interval
Rupununi	44.6 ind/km	2261	1008.8	5070
North West District	27.6 ind/km	2798.3	1534.4	5103
Berbice	18.3 ind/km	7578	3922.3	14642
Combined Total		12,637	6,466	24,815
Average Density	30.2 ind/km			

FIGURE1: Examination of the situation of Ara ararauna in Guyana using factors to determine the global suitability of the species for international trade.



Source: GWCMC

Population Structure

The species exhibit no apparent sexual dimorphism, therefore distinguishing between the sexes was not possible during the survey period. The population structure presented in this report is based on the group dynamic encountered during this survey. Three major clusters were encountered in the Berbice River, the Canje Creek and the Corentyne River. The 9 clusters were encountered in the Berbice River with an average flock size of 25 individuals, with the maximum number of 33 individuals in each flock and a minimum of 6. It should be noted that of the total flock recorded 8 consisted of 20 individuals and above, with a median of 26 individuals per flock. The flocks represented 69 % of the total number encountered at that survey site. The remaining 31 % comprised of groups mainly comprised of fours, threes, and pairs.

Comparatively, 4 clusters encountered in the Canje Creek with an average cluster size of 17 individuals. The maximum number recorded was 32 individuals and the minimum number recorded was 7 individuals. Twenty-two percent of the total recorded at this survey point represented pairs, while 74 % represented individuals in flocks.

Similarly, 4 clusters were encountered in the Corentyne River, with a mean flock size of 15. The maximum number encountered per flock was 36 individuals while the minimum number encountered was 6 individuals. Flocks represented 58 % of the total number encountered for that survey point, while groups of four represented 24 %.

Threats to local Population

While the population of blue and gold macaw is abundant in their areas of distribution in Guyana, threats to the species includes the following:

- Logging which decreases the amount of food available to the species
- Lack of survey to establish population trends
- Information gap on the utilisation in the domestic pet trade.
- Extraction in the closed season

Threat Management

The Guyana Wildlife Conservation and Management Commission, held a stakeholder workshop to identify threats to psittacine in Guyana. The workshop identified immediate actions and shared the long terms actions to be implemented based on the recommendations of the CITES Secretariat.

Short term actions to be implemented in 2020:

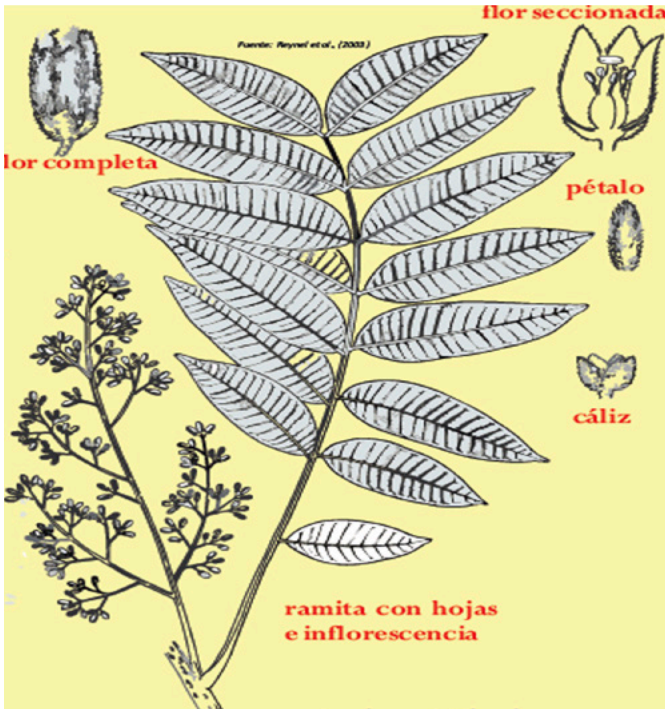
Source: GWCMC.

In conclusion the survey provided the foundation for the GWCMC to present sound scientific basis to ensure the protection and secure the future of wildlife in Guyana.

Perú

Current situation of the genus *Cedrela* spp. in Peru

This technical article appears as a preliminary result of the technical consultancy contracted by the Bioamazon Project, under Component 3. It was written by Roger Tarazona, forestry engineer specialized in silviculture at the La Molina National Agrarian University, with postgraduate studies in Forests and Forest Management.



Cedrela Fissilis /Source: OSINFOR 2017.

The study on the "Situational state of the genus *Cedrela spp.*, In Peru" seeks, in global terms, to contribute to the conservation of Amazon biodiversity and, especially, of the species included in CITES. It shows a clearer vision of the *Cedrela spp* genus, the status of the species, the characteristics for their identification, their distribution in Peru and the regions where they are located, among other relevant information.

In the country, the genus has economic importance due to the quality of its wood, which translates into high pressure for its use and, consequently, in a population reduction. However, the knowledge at the level of physical, mechanical and anatomical characteristics to differentiate the species is still limited, so that, generally, all species of the genus are taken as one for their forest use.

Evolution of knowledge about the genus *Cedrela*

The genus Cedrela was described by P. Browne in 1756, comprising initially trees from the Americas, India, Southeast Asia and Australasia—with a total of 69 species. After a review in 1960 Asian and Australasian species were placed in the genus Toona, leaving the genus *Cedrela* in the Americas with a mere nine species (Patiño, 1997). Subsequent reviews by Styles and Germán in 1981 recognized seven species: *Cedrela fissilis* Vellozo; *C. lilloi*, C. *de Candolle*; *C. montana Moritz ex Turczaninov*; *C. oaxacensis*, C. *de Candolle* & *Rose*; *C. odorata Linnaeus*; *C. salvadorensis Standley*; and *C. tonduzii*, *C. de Candolle*. Another four species were classified as insufficiently known: *C. angustifolia Moçiño* and *Sessé Ex P. de Candolle*; *C. discolor* S.F. Blake; *C. imparipinnata C. de Candolle* and *C. weberbaueri Harms* (Op. Cit.).

For Groves & Rutherford (2017) the genus *Cedrela* includes 21 species, three of which are listed in CITES Appendix III/ Annex C (*Cedrela fissilis, C. lilloi* and *C. odorata*). Four others are regulated only by Annex D (*C. montana*, *C. oaxacensis, C. salvadorensis* and *C. tonduzii*). These species are native to Central and South America and the Caribbean, namely: Argentina, Barbados, Belize, Bolivia, Brazil, the British Overseas Territories (Cayman Islands, Montserrat), Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, French Guyana, Granada, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Saint Kitts-and-Nevis, Saint Lucia, Santo Domingo, Suriname, Trinidad and Tobago, the USA (Virgin Islands), and Venezuela.

Pennington and Muellner's study "A monograph of *Cedrela* (*Meliaceae*)" constitutes the most complete and exhaustive reference on the genus and its species. Following its release Peru came to be considered the *Cedrela* species diversity center (displacing Mexico) due to the presence of 10 of the 17 species of the genus in its territory (MINAM, 2018), including 4 species found exclusively in Peru: *C. kuelapensis, C. molinensis, C. longipetiolulata and C. weberbaueri*.

All subsequent investigations did nothing but confirm these findings, and more recent studies (Bio Modus Tropical, 2016; and MINAM, 2018) reaffirm the distribution of 10 species of the genus *Cedrela* in Peru: the 4 endemic ones indicated in the previous paragraph plus *C. montana, C. angustifolia, C. fissilis, C. odorata, C. saltensis* and *C. nebulosa*.

Rutter's "Catálogo de plantas útiles de la Amazonía peruana" [Catalog of useful plants of the Peruvian Amazon] (1976) refers to the following species of the genus *Cedrela: C. angustifolia, C. fissilis, C. herrerae, C. macrocarpa, C. huberi, C. longipetiolulata* and *C. odorata*.

On the other hand, the "Mapa de presencia de especies del género *Cedrela* en el Perú" [Map of the range of species of the genus *Cedrela* in Peru] published by the Peruvian Ministry of the Environment (MINAM, 2013)11 refers to 11 species of the genus: *C. angustifolia, C. fissilis, C. kuelapensis, C. longipetiolulata, C. macrocarpa, C. montana, C. nebulosa, C. odorata, C. weberbaueri* and *C. Saltensis*, in addition to a group of trees not defined as a specific species and classified as *Cedrela sp.*—adding up to 10 species identified at the species level.

Finally, the most important reference for this report is the study "*Evaluación dendrológica y anatómica de las especies del género Cedrela*" [Dendrological and anatomical evaluation of species of the genus *Cedrela*] (MINAM, 2018), which agrees with Pennington and Muellner (2010) regarding the species distributed in Peru and provides additional information about species distribution by ecoregion.

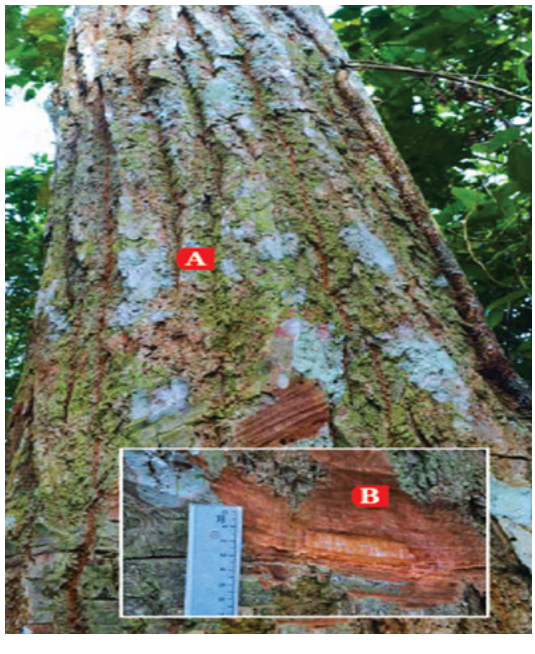
Recognition and differentiation of species of the genus *Cedrela* based on vegetative characters

Cedrela Fissilis /Source: OSINFOR 2017

1 http://www.minam.gob.pe/diversidadbiologica/wp-content/uploads/sites/21/2014/02/mapa_cedro-y-caoba- 2013.pdf

Pennington and Muellner (2010) noted that taxonomists distinguish between species of *Cedrela* based mainly on flower and fruit characteristics. In the flowers they examine the calyx and petals, as well as the pubescence in the floral parts. In fruits they look at the size, peduncles and surface.

However, the very short flowering and fruiting periods of the genus *Cedrela* makes this an impractical approach to species identification in the field and preference should be given to more enduring traits like the characters of barks and leaves that are present year-round (Bio Modus Tropical, 2016).



Cedrela Fissilis /Source: OSINFOR 2017

In their 2010 study Pennington and Muellner suggested that bark characters might be useful for species recognition even without the existence of a diagnostic tool (Bio Modus Tropical, 2016). Bark characters were first used in the 2018 MINAM study, whose main contribution was obtaining and corroborating morphological characters that could be used to recognize species in the field based on vegetative characters (Bio Modus Tropical, 2016). Furthermore, according to Spichiger et al. (1990) certain species of the genera *Cedrela* and *Swietenia* "are part of the diet of a group of primates (*Cebuella pygmaea*[2], *Callitrichidae*), a very important fact that must be taken into account when planning for the management of global forest resources".

The genus *Cedrela* and CITES

Cedrela spp. is a genus of the Meliaceae family whose listing in Appendix II of the CITES Convention will enter into effect on 28 August 2020. In Peru the species of this genus were included under the following national threat categories: Endangered (EN): *Cedrela angustifolia* (often referred to as *C. lilloi*); Vulnerable: *Cedrela fissilis Vell.; Cedrela montana Moritz ex Turcz.*; and *Cedrela odorata*, L.

The project "Current state of the genus *Cedrela spp.* in Peru" aims to contribute to conserving Amazonian biodiversity and particularly CITES-listed species through enhanced knowledge, more effective and efficient management, and monitoring and control of wild plant and animal species endangered by trade in ACTO Member Countries.

Geographic location of populations of species of the genus *Cedrela*

Cartographic materials showing the distribution of species of the genus Cedrela have been prepared using data from the Peruvian Organism for the Supervision of Forest Resources and Wild Fauna (OSINFOR), which registers 9.306 supervised trees under different types of permits known as "*títulos habilitantes*"[3] in

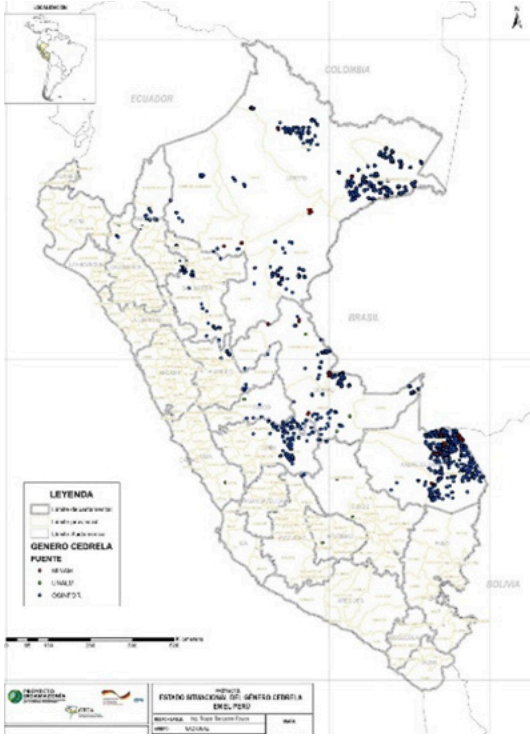
2 Pygmy Marmoset.

3 Legal instruments through which plants and animals can be exploited in Peru.

10 regions of Peru; the National Agrarian University of La Molina (UNALM) database, with 9 botanical collection records; and the Ministry of Environment (MINAM) database, with 483 botanical collection records.

After processing the data separate maps were prepared for each database. The databases were then joined to prepare a map reflecting a better distribution of species of the genus Cedrela at the national level.

DISTRIBUTION OF SPECIES OF THE GENUS *CEDRELA SPP.* IN PERU



Source: Database OSINFOR-UNALM-MINAM

In 2016 MINAM and BIO MODUS conducted a study by applying Species Distribution Modeling (SDM) together with the MaxEnt tool to 348 collection records and preparing probable distribution maps for natural populations of the species of *Cedrela*: *C. angustifolia, C. fissilis, C. longipetiolulata, C. montana and C. odorata*.

SDM modelling is based on the assumption that individuals of the species of interest occur naturally at ecologically suitable sites conditioned by various concurrent environmental variables at such sites, and that this condition is applicable to all other environmentally equal geographic spaces (Bio Modus Tropical, 2016).

Modelling of potentially suitable areas[4]

Areas of predicted environmental suitability for *Cedrela angustifolia*

For this species the model establishes a potentially suitable surface of 123,630.3 km^2 or 9.53% of Peru's continental territory. The potentially suitable areas are located on the eastern flank of the Andean mountain range, from approximately 14° to 6° south latitude. The species is found in the mountains and high jungle.

Areas of predicted environmental suitability for *Cedrela fissilis*

Potentially suitable areas for this species extend across 359,180.0 km^2 or 27.69% of the Peruvian territory, from the central to the southern part of the low jungle, as well as parts of the high jungle of San Martin, the central jungle, Manu National Park, part of the Aguaytia river basin and middle Tambopata river basin.

Areas of predicted environmental suitability for *Cedrela longipetiolulata*

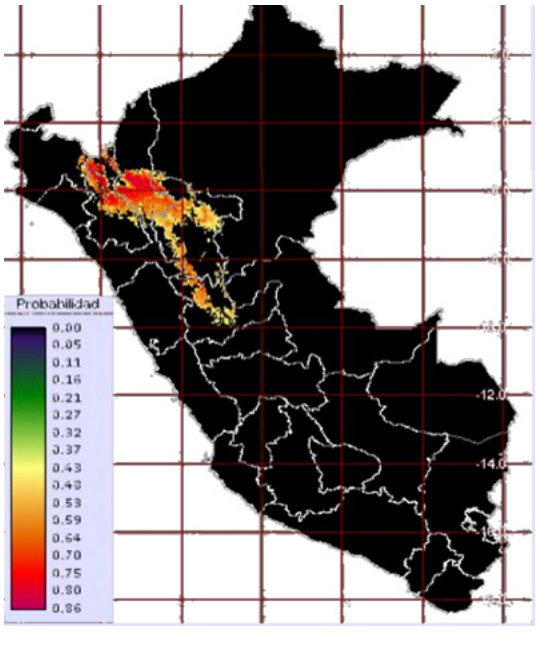
This species occurs on a potentially suitable area of 524,484.6 km^2, equivalent

4 Bio Modus Tropical (2016). Service specialized in dendrological and anatomical characterization of the genus ***Cedrela***. Final Report. Lima, 123 pp.

to 40.43% of the continental territory of Peru. This low jungle species can be found across the northeastern half of Madre de Dios, with Loreto (Morona-Pastaza, Napo-Nauta-J. Herrera) and Ucayali (San Alejandro-Aguaytia) being the areas of greatest potential.

Areas with predicted environmental suitability for *Cedrela montana*

The potentially suitable area covers 53,237.6 km^2 or 4.10% of Peru's continental territory. Of the five species analyzed it has the smallest potentially suitable area, on a strip of eastern slopes of the Andes mountains from Huanaco to San Martin that extends to Escalera Mountain-Eastern Mountain Range, and to the mid-south of the Amazonas department and jungle areas of Cajamarca. The greatest potential surrounds the Pedro-Ruiz Bagua axis, lower Utcubamba River.



Source: Bio Modus Tropical (2016)

Areas of predicted environmental suitability for *Cedrela montana*

The species has a potentially suitable area of 668,498.5 km^2 or 51.53% of Peru's continental territory, consisting of high and low jungle, except for the southern area of Loreto in the higher stretch of the Tigre, Napo and Putumayo rivers. Its most suitable areas extend from the protected areas of Madre de Dios in the South to the margins of the Ucayali river and its tributaries, going all the way to its confluence with the Marañon river.

Based on the information above about the natural distribution of the five species one can conclude that special care must be taken with *C. montana* and *C. angustifolia*, which have a smaller natural distribution area and populations that could be rapidly decimated. Both species should be permanently monitored to prevent pressure on their valuable timber stocks from making them vulnerable.

Conclusiones

Knowledge management, both public and private, at the national and regional levels, must be emphasized. Instead of focusing exclusively on planning future and necessary research, all information obtained should be automatically systematized and efficiently and effectively disseminated to inform decision-making.

Those responsible for field activities associated to logging permits must be trained to conduct botanical collections whenever clear felling an area of forest species. Not just *Cedrela* but all species, or at least those of economic and environmental importance.

Data gathering for databases of the various public and private organizations should be standardized and improved

to ensure that information for decision-making is reliable.

Special care must be taken with the approval of the annual operating plans required to obtain extraction permits for species of *Cedrela* with small natural distribution areas.

Despite the many advances, knowledge gaps continue to hamper the effective and sustainable management of *Cedrela* populations, particularly concerning forestry and management of natural regeneration, reproduction and plantations, among others.

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Amazon Rescue Center rescues and frees a Brown-throated Sloth

Meet "Schumacher", a sloth rescued while trying to cross a road in Iquitos (Peru).

Bradypus variegatus is a kind of Brown-throated sloth (three toed), typically found in Central America, Mexico and South America (Brazil, Peru, Colombia, Ecuador and Venezuela).

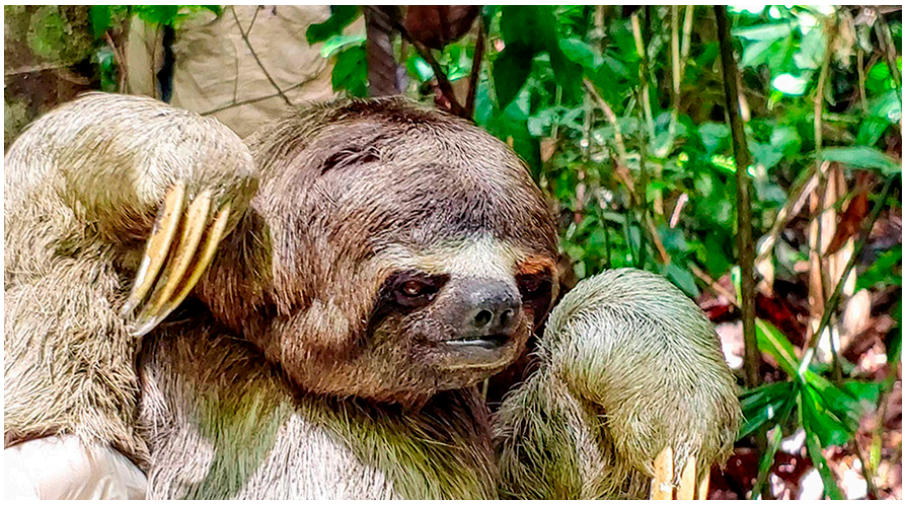
As a threatened species it has been part of CITES Appendix II since 2011.

By Ing. Cristian Vélez, Environmental Education Coordinator of the Amazon Rescue Center (CREA)

With its characteristic slowness when moving, a Brown-throated Sloth (*Bradypus variegatus*) was trying to cross the road that connects the cities of Iquitos and Nauta, in the Peruvian Amazon, when a group of populated center "Quistococha" inhabitants decided to put it safely in a tree, and it was greatly surprising to everyone when after 30 minutes, the Brown-throated Sloth returned to the road. Due to the fear that it may be run over by a vehicle, they decided to contact the Amazon Rescue Center (CREA) to come to help.

Bradypus variegatus is a kind of Brown-throated sloth (three toed), typically found in Central America, Mexico and South America (Brazil, Peru, Colombia, Ecuador and Venezuela). It is the most widespread and common species of the group, so it can be found in many different environments, including evergreen jungles and dry forests and as a threatened species it has been part of CITES Appendix II since 2011.

Photo 1. *Bradypus variegatus,* nicknamed Schumacher, Iquitos, Peru.



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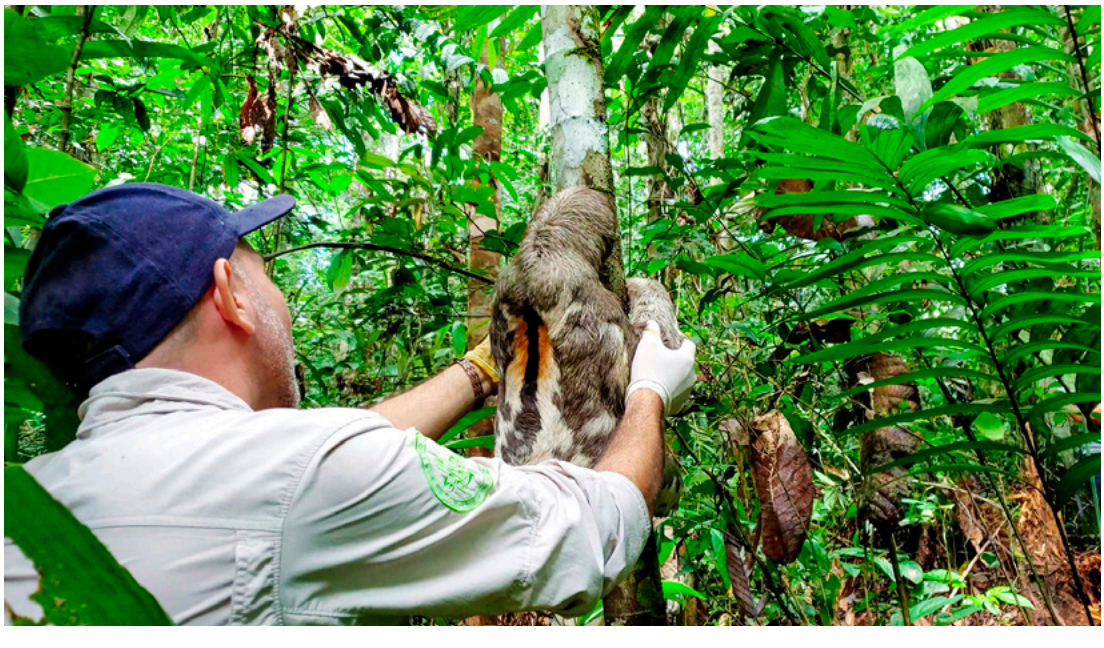
The process of urban expansion of the city of Iquitos (Peru) bring the loss of many areas of natural forest as the consequence. In the specific case of this Brown-throated Sloth, it was escaping from the clearing area of a nearby forest, which used to be their habitat. Unfortunately, it is not the first case, because we constantly rescue animal species that are increasingly living closer to populated centers due to the destruction of their environment. It is a really worrying problem, because, according to a study published by Global Forest Watch, Peru appears in fifth place worldwide of the most deforested countries in the world with 162 thousand hectares of primary forests lost in 2019.

CREA veterinarians made a medical evaluation of the animal, which was perfectly healthy and, as it had not used to be in captivity, it was coordinated to immediately release him in the National Reserve Allpahuayo–Mishana. The action carried out with the support of the Reserve Headquarters and the Regional Fauna Authority.

Los veterinarios del CREA hicieron una evaluación médica del animal, el cual se encontraba perfectamente saludable y, como no había permanecido en cautiverio, se coordinó su inmediata liberación en la Reserva Nacional Allpahuayo–Mishana, acción llevada a cabo con el apoyo de la Jefatura de la Reserva y la Autoridad de Regional de Fauna.

Photo 2: Luis Javier Velásquez Varela, Director of the Amazon Rescue Center (CREA) releasing Schumacher, a Brown-throated Sloth in the National Reserve Allpahuayo–Mishana, in Iquitos, Peru.



Due to his preference for being close to the road, the rescued Brown-throated Sloth was baptized with the name of Schumacher, in allusion to the Formula 1 racer Michael Schumacher. Now this Brown- throated Sloth can safely deploy his adventurous spirit within the reserve.

The rescue centers play a very important role in providing support to the Peruvian society and government by being the entities that receive the wildlife species that are confiscated. We rehabilitate and liberate them in protected areas and do constant environmental education work to prevent and reduce trafficking of the animal

species. Our work continues despite the quarantine situation due to Covid-19, since wildlife trafficking is a problem that we face on a daily basis.

The CREA is a joint effort between the Dallas World Aquarium Zoo, Research Institute of the Peruvian Amazon (IIAP). The Amazon Cooperation Treaty Organization (ACTO), through its Amazon Project and by proposition of the Ministry of Production of Peru (PRODUCE), who has joined this year. Thanks to the improved facilities of the rescue center, until today, we have rescued 50 manatees, 25 of which were released in protected natural areas, as well as 4 pink dolphins and about 10,000 terrestrial and aquatic turtles. Likewise, about 80 thousand boys and girls have participated in our environmental educational workshops, promoting sustainable development for our Amazon.

To learn more about the Amazon Rescue Center, visit:

https://www.centroderescateamazonico.com/es/inicio/

https://www.facebook.com/CentroRescateAmazonicoCREA

https://www.instagram.com/centroderescateamazonico/

https://www.youtube.com/channel/UCH7NT1Hts-hsMGUVspfY81w

Iquitos (Peru), maio-junio de 2020.

Audio and Video

Wildlife Trade

UN News published an interview with Ivonne Higuero, Secretary-General of CITES - the Convention on International Trade in Endangered Species of Wild Fauna and Flora – about wildlife trade.

Listen to the interview in English here

https://news.un.org/en/audio/2020/05/1063692

About the Bioamazon Project

Bioamazon is a **regional project in the ACTO´s framework** that contributes to the conservation of **Amazon Biodiversity**, especially the species included in the CITES Convention.

To this end, **it seeks to increase the efficiency and effectiveness of the management, monitoring and control of species of wild fauna and flora threatened by trade** in ACTO member countries: Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela.

It is part of a Cooperation Agreement between the Federal Government of Germany and ACTO with implementation through the KfW.

Bioamazon Project: Coordinator, Mauro Luis Ruffino. Communication Advisor, Denise Oliveira. Administrative, Financial and Procurement Manager, Sergio Paz Soldán Martinic. Administrative Assistant, Janet Herrera Maldonado.

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BIOAMAZON PROJECT
Conservation of species threatened by unsustainable trade

ACTO
Amazon Cooperation Treaty Organization

german cooperation
DEUTSCHE ZUSAMMENARBEIT

Implemented by: KFW

Bolivia Brasil Colombia Ecuador Guyana Perú Surinam Venezuela