

TReeS News No.84

March 2020

The **TReeS** newsletter provides an update to its members and for those interested in rainforest related issues in Amazonia, specifically in Madre de Dios, in south-east Peru, and the small-scale projects TReeS supports there.

This edition focuses on the projects supported by TReeS members: the reforestation project; Casa Miraflores, including a small associated reforestation project; the small grants programme, including feedback from past recipients; and recent indigenous activities which TReeS funded. There is also an update on deforestation rates across Amazonia.

Coronavirus and indigenous peoples

Covid-19 presents an unparalleled threat to indigenous peoples both contacted and uncontacted, who have almost no natural resistance to the common cold let alone a respiratory virus such as Covid-19.

Peru has reacted quickly - see page 6 – and most indigenous peoples have returned to their communities to self-isolate but the risks remain great.

In Puerto Maldonado there is currently one case.

Appeal: should Covid-19 reach the indigenous communities of Madre de Dios then TReeS may appeal directly to members to enable us to offer FENAMAD some emergency funding to help support the affected communities.

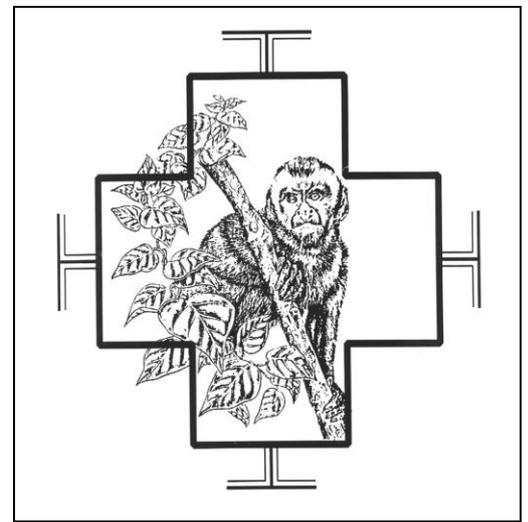
Reforestation project update

Thanks to the generosity of TReeS members and supporters, a further two hectares (Phase 3) has been planted with mango, avocado, *poma rosa*, *sapote*, *castaña* and *casharana* amongst others at Bello Horizonte. The initial plans to plant in December had to be postponed due to heavier than usual rainfall, even for the rainy season. However, January was unusually dry and provided a window of opportunity to prepare the land and plant the seedlings.

The two hectares of the abandoned ranch replanted only just over a year ago at the start of 2019 (Phase 2) are doing well. The area lies between the initially replanted plot and a small stand of existing forest. The vast majority of the seedlings planted survived and are now 2-3 metres tall, with a few already producing fruit. Only some of the *copasu* seedlings succumbed, mainly to fungal infection and/or insect attack and these have now been replaced with other species. The locations of each tree have been digitally mapped, measured (height and diameter) and photographed for future reference and monitoring.

Every 2-3 months a significant amount of ground vegetation cover and climbing plants appear which have to be cleared. This is necessary until the trees are 3+ metres tall when they cast enough shade to reduce the ground cover. Consequently, the phase 2 and 3 areas will need on-going maintenance while the Phase 1 plot will be enhanced with the planting of more timber seedlings.

The replanted area of the ex-ranch has now reached the maximum area (6 hectares) that can be maintained and managed by the Bello Horizonte lodge staff which has enabled seedlings to be planted at cost price. Now the full costs of clearing and preparing the land, planting the seedlings and maintaining them for up to 3 years need to be covered. This is calculated to be £5 per seedling, on average, depending on the type of seedling planted.



Phase 2: recently maintained trees – nearly 2 metres tall after just one year © TReeS



Phase 2: foreground; Phase 3: centre right; Background: Ex-ranch & the forest beyond © TReeS



Phase 3: planting of seedlings © TReeS

Casa Miraflores

The popularity of Casa Miraflores amongst indigenous students studying at Universities and Institutes in Puerto Maldonado, has created a problem for FENAMAD. They are considering establishing a selection process given that the number of potential residents for the new academic year exceeds its capacity (24 students). The process would try to ensure that some places are reserved for female students, and that there would be a mix of students from different ethnic groups and communities from across Madre de Dios.

Further improvements have been made to the 'house' with a donation from a German NGO of a couple of solar panels. A small workshop has also been constructed so that students can pursue some artistic endeavours which might allow them to generate some funds. TReeS has made a small contribution to the general maintenance of the house this year.

It has been confirmed that Katya Mallea will remain as co-ordinator for another year. TReeS will again fund an english teacher for several weeks to try to boost the functioning english of most of the students but especially those studying tourism. And, TReeS will again fund an ICT teacher for some intensive teaching, 2-3 classes per week to boost their knowledge of basic computing skills.

TReeS has donated a second-hand laptop and hopes to donate at least one more later in the year, and will also replace the existing printer. Access to computer facilities is essential for all the courses studied.

Appeal – old hard drives or laptops

If you have an old laptop or hard drive (lighter models) that is still in good working order but is no longer needed, we may be able to arrange for it to be donated to Casa Miraflores and would like to hear from you. Please send an email with details to: treesuk1@gmail.com

Karla Bontemps

Karla has been undertaking her practical at Casa Miraflores over the last year to gain her title at the end of her Psychology degree course (6 years). She has held nearly a dozen small group workshops during the year employing a range of methods to cover topics such as 'self-esteem' issues, 'understanding your emotions', 'traditional lifestyles v modernity', drugs awareness as well as more individual and informal sessions to help them to adapt to living in a city and successfully pursue their studies. This is despite the fact that in August/September last year 20 of the 24 students living at the house succumbed to dengue fever and had to spend two weeks recovering, leading to the loss of a month of activities.

Some of the students, especially the Harakbut, have revealed traditional knowledge and stories especially through artwork. However, the influences of non-native culture are strong, for example, many of them are now choosing to have western style tattoos rather than traditional indigenous ones.

In feedback sessions, the students have been extremely positive about the support they have received from Karla. As far as Karla can establish there is no-one else undertaking a similar study with indigenous students elsewhere in the Peruvian Amazon.

El Pilar project

TReeS has funded two small-scale initiatives by Casa Miraflores in conjunction with FENAMAD and the native community of El Pilar, half an hour up the Madre de Dios river from P.Maldonado. El Pilar have donated two hectares of *purma* (ex-chacra, now overgrown) to Casa Miraflores.

With the support of a local forestry engineer - Luis Farfan of the Association of Ecological Farmers - the students have adopted an integrated forestry approach: crops will, initially, be grown in with tree seedlings to shade and protect them until the trees are taller.

Firstly, to enhance the diet of the students at Casa Miraflores funding was provided to plant some staple crops: maize, rice and cassava. The selective clearing of the *purma* and planting of the crops was undertaken by the students and members of the community. By January, the wild rice crop was ready for harvesting and a group of students, community members, members of FENAMAD and friends of TReeS visited the plot. A long morning was spent harvesting the golden panicles containing the rice grains. The panicles were packed in to sacks and carried 1km back to the village. There, the sacks were emptied out on to a large plastic sheet laid out on the floor of a *maloca* so the process of threshing could begin. To the sound of salsa music, the assembled walked, trod and danced on the panicles to separate out the grains before they were bagged up. Over 400kgs of rice was harvested. In total the plot is expected to provide over 2,000kgs – enough to last the students at Casa Miraflores for the year: they eat a lot of rice!

Secondly, a variety of fruit and timber species have been planted in between the maize and rice crops. Most have now reached 1+ metres in height, having been shaded by the crops. More fruit and timber seedlings will be planted in the plot later in the year.



Group meeting in the Casa Miraflores maloca © K.Bontemps



Yine students preparing traditional artwork © K.Bontemps



Daniel Peña (FENAMAD) standing amongst the golden panicles © TReeS



Harvested rice panicles © TReeS



Tree seedlings planted amongst the crops © TReeS



Rice panicles ready for threshing © TReeS

Coharyima - internet connection project

TReeS has agreed to offer some additional funding to Coharyima (Council of the Harakbut, Yine and Matsiguenga) to enable them to finalise a NORAD/ Rainforest Foundation (Norway) project to install satellite internet connections powered by solar panels in all native communities in the upper Madre de Dios. The TReeS funding will enable them to complete the installations in four communities: Bocashiriwe, Puerto Azul, Diamante and Isla de los valles. The funding will cover the purchase of the solar panels, batteries, control units, stabilisers and amplifiers.

This will enable the communities to report issues such as logging on their land, incursions by miners, etc; allow students to access a wealth of resources via the internet; encourage tourism; allow family links to be maintained more easily; seek medical advice; etc.

FENAMAD can also keep the native communities much better informed; other agencies can also communicate with them more easily; etc.

In the long-run it is hoped that this may encourage a greater number of younger community members to remain or return to live in their communities.

COP25 support

TReeS provided some small-scale funding to COHARYIMA to produce a short film about the potential impact of climate change on some of its communities such as Santa Rosa de Huacaria, on the Cusco/Manu road; Tayakome, in Manu National Park; and Isla de los valles, at the confluence of the rivers Manu & Alto Madre de Dios. The film was shown at a special event during COP25 - the latest UN Climate Change Conference, which was switched at the last minute to Madrid from Santiago de Chile due to social unrest in Chile.

The video can be viewed at -

<https://www.youtube.com/watch?v=L2aolz19bhk>

COP26 Glasgow

FENAMAD plan to send four members of the FENAMAD directorate plus two *tecnicos* to participate in COP26 to be held in Glasgow, 9th-19th November – coronavirus and funding permitting.

La Pampa - illegal gold-mining update

Operation Mercurio, in February 2019, had a major impact on illegal gold-mining in La Pampa. The latest MAAP (Monitoring of the Andean Amazon) report indicates deforestation declined by 92% in La Pampa over the last year. There are now several projects looking at how the barren, pot marked surface might be recuperated.

However, the displacement of miners led to new activity in other areas such as Pariamanu and the Alto Malinowski which has led to increased deforestation there. This may lead to Operation Mercurio being extended to cover these two areas.

TReeS small grants programme 2020

In 2020 sixteen applications were received - equalling our record number - and we are planning to offer a grant to a record eight applicants - as follows:

***Gorki FLORES (UNAMAD):** *‘Determinacion de las características genéticas, funciones ecológicas actividades antioxidante ganoderma applanatum en un bosque natural, Tambopata’* – Gorki plans to determine the genetic characteristics, ecological functions and antioxidant *ganoderma applanatum* activities in the natural forest.

***Jerica OMMIA (UNAMAD):** *‘Efecto de la actividad minera en la calidad de agua en cuatro quebradas de San Jose de Karene’* – is the first indigenous student to receive a grant from TReeS. She will investigate the impact of illegal gold-mining activities in four *quebradas* in the native community of San Jose de Karene, in the Amarakaeri Communal Reserve.

***Junior CARRASCO (UNAMAD):** *‘Aislamiento e identificación de hongos microrízicos arbusculares en bosques de la cuenca del rio de Madre de Dios’* – Junior intends to study *arbuscular mycorrhiza*, a type of *mycorrhiza* in which the symbiont fungus penetrates the cortical cells of the roots of vascular plants creating arbuscules.

***Michela OLAYA (UNMSM):** *‘Diversidad funcional de la comunidad de insectos acuáticos de la Reserva Nacional Tambopata: una aplicación de los rasgos funcionales’* – Michela’s study is a straight forward look at aquatic invertebrates and the abiotic conditions that might affect their abundance and diversity.

***William Tito (UNSAAC):** *‘Herpetofauna por los alrededores del río Ponal y los impactos de las actividades extractivas, en el distrito de Iñambari’* – William will study the herpetofauna populations found along the río Ponal, a tributary of the río Iñambari. He aims to establish a checklist of reptiles and amphibians for the area and assess the impact of extractive activities, especially gold-mining, on them.

***Luis YARI (UNAMAD):** *‘Secuestro de carbón y caracterización lignocelulosica de plantaciones comerciales de tectona grandis L.F. en la Provincia de Tahuamanu’* – Luis will study a recently planted teak plantation in northern Madre de Dios, to assess the characteristics of the dry plant matter produced and the ability of the species to store carbón.

***Valeria ORSI (UNAMAD):** *‘Enriquecimiento de bosques secundarios con plantas de especies nativas de alto valor económico, ecológico, medicinal y cultural en la CN de Boca Pariamanu’* – Valeria plans to work in the native community of Pariamanu to see if an area of secondary forest can be enhanced with tree species of high economic, medicinal and cultural value.

***Jessica PISCONTE (UNAMAD):** *‘Incidencia y ambito de afectación del mercurio en aves expuestas a minería ilegal en la Tambopata National Reserve (TNR)’* – a small additional grant has been awarded to enable her to complete her study. (See Field report below)

Appeal: £25+ donations towards the **2021 grants programme** so that a similar number of grants can be awarded.

TReeS small grants recipient feedback

The following are brief descriptions of the findings of Peruvian students who received a small grant from TReeS to support their fieldwork in Madre de Dios to obtain the data for the projects they need to complete for their bachiller, or title.

***Pedro Castillo (UNALM):** *‘Recuperación de la fertilidad y filoextracción del mercurio con cultivos de cobertura en suelos degradados por la minería aurífera aluvial en Madre de Dios’* – has submitted his final report covering his study of areas affected by illegal gold-mining and how leguminous plants may help degraded soils to recuperate. The study was located in the native community of San Jacinto, near La Pampa – the area most affected by gold-mining. It was undertaken with the support of IIAP (Instituto de investigaciones de la Amazon Peruana). Pedro planted samples of five species of ground vegetation plants and analysed the soil after six months and the plants after eight months. The soil samples showed a slight increase in nitrogen levels suggesting that they didn’t have a major impact on improving soil quality. Only one plant species - *Crotalaria juncea* – showed small amounts of mercury stored within its foliage suggesting that it might be useful to plant in such locations to decontaminate the soil and assists its recuperation.

***Jessica Pisconte (UNAMAD):** *‘Incidencia y ambito de afectación del mercurio en aves expuestas a minería ilegal en la Tambopata National Reserve (TNR)’* – has submitted the first part of her report about her study of mercury levels in birds living in areas of illegal mining within the TNR and, potentially, exposed to mercury contamination.

Jessica has established three study sites: a high impact site within the ‘blue zone’ – the area of La Pampa most affected by mining; a control site at La Torre, within the TNR, on the Tambopata river; and at the Los Amigos research station, outside the protected area but affected by mining many years ago. At each site 10 survey points have been set up.

She has collected 170 specimens, from 77 species, 11 orders and 24 families. Feather clipping samples were taken from 155 of them of which 68% weren’t moulting so the analysis should reflect the environmental conditions over the last year. Aside from the biometric data, mercury levels were also measured in the air, water and soil. Jessica will now analyse the data she has collected to assess the impact that mercury is having on these species.



Jessica with a Lettered Aracari (Pteroglossus inscriptus) © J.Pisconte

TReeS small grants recipient feedback continued

***Gorki Flores (UNAMAD):** *‘Efectos de calidad de sitio en la producción de pulpa de Huasaí en dos tipos de habitats en el sector Loboyoc, distrito de Las Piedras, Madre de Dios’* – has submitted the field report for his investigation looking at two different habitats to determine the factors that affect the quality and quantity of pulp that can be obtained from the *huasaí* palm fruit.

Gorki’s field work was based at two plots in Loboyoc, just north of P.Maldonado. In each plot he collected fruit from 30 palms where the fruit had just started to fall. The fruit was collected by climbing 25-30 metres up each tree using a traditional double rope technique.

In Madre de Dios, 12-20 tonnes of huasai fruit per hectares can be harvested from non-flooded forest while about 25 tonnes per hectares can be obtained from flooded forests. Each tree produces on average 50 bunches of fruits, weighing up to 9kgs, while each fruit weighs around 1.5 grams.

There are two species – *Euterpe oleracea*, which is grown commercially for export, and *Euterpe precatoria*, which is consumed locally. The fruit contains high levels of carbohydrates and ten times more phenolic antioxidants than grapes. Gorki is now analysing his results from the harvest as well as the climate, soil, terrain, etc data recorded at each plot to determine the factors that may explain the variations in production.



Preparing to climb a Huasai palm © G.Flores



Freshly harvested Huasai fruit © G.Flores

Peru News

New Congressional elections were held in late January to elect a temporary Congress that will sit until the traditional electoral calendar resumes in the Spring of 2021. The elections resulted from President Vizcarra’s unprecedented decision to dissolve Congress when it failed to pass a vote of confidence in his new cabinet.

Only Acción Popular of the established parties did reasonably well, coming top but with only 10% of the vote. The other seats in Congress were shared between eight other parties, including several new ones such as FREPAP, an evangelical Christian fundamentalist party, and Union por el Peru, an Andean indigenous rights based party. APRA and the long-established Christian party failed to secure any seats while Fuerza Popular - Fujimori’s party - was reduced to a handful of seats. The results represented a shift to the right and were widely seen as reflecting widespread dissatisfaction with political corruption. At the time of writing, it looks as if four of the larger parties will form a governing group.

Keiko Fujimori is back in prison on remand after being released for a couple of months. Her position was further weakened by revelations that the Romero Group – industrialists and owners of Banco de Credito – had channelled \$3.6m to her election campaigns.

Meanwhile, Odebrecht have confirmed that over 700 payments were made to Alan Garcia’s regime during its second term, despite his pleas of innocence in his suicide note last year. This included funding relating to the awarding of the contract to build the Transoceanic highway through Madre de Dios.

Economic growth in 2019 fell to 2.1%, its worst for 20 years. The US-China trade war played a significant part in reducing Chinese demand for raw materials and the impact of coronavirus this year is unlikely to improve matters. UK mining companies are now the largest investors in the sector (21%), followed by Chinese companies (17.5%).

To boost the economy President Vizcarra announced studies for 52 priority infra-structure projects. One of the largest and most controversial is the \$100m, Chinese backed, Hidrovia project which would involve dredging four main tributaries of the upper Amazon upstream of Iquitos. This would greatly improve commercial access in the northern Peruvian Amazon and, potentially, ‘open up’ the region to greater development.

Peru has tightened its border controls to restrict the flow of Venezuelan refugees. There are thought to be almost a million Venezuelans in Peru, half of whom have arrived in the last 2 years as refugees – the most that any Latin American country has taken in.

The current rainy season has seen over 8,000 cases of dengue in the Peruvian Amazon with the Province of Tambopata recording 2,000+ with five deaths. New research suggests that deforestation and illegal gold-mining contribute by providing more locations for the mosquito to breed and increasing the population living in conditions with poor water storage.

We are grateful to the Peru Support Group (PSG): www.perusupportgroup.org for the sourcing of some details in TReeS News.

Perez de Cuellar (1920-2020)

In early March, the death was announced of Perez de Cuellar twice UN Secretary General (1982-1991). His life spanned that of the UN – he was present at the first General Assembly, in 1946. Amongst his many achievements, he established the UN peace-keeping force in its current form and, in 1988, negotiated the ceasefire in the Iran-Iraq war.

Prior to this, in 1968, he opened the first Peruvian embassy in Moscow. In 1995 he unsuccessfully challenged the incumbent President – Fujimori, but was briefly Prime Minister, in 2000, before becoming Ambassador to France.



Coronavirus in Peru

At the time of going to press, Peru has recorded 1,323 cases - mainly in Lima, and 47 deaths (2.4.2020).

On 16th March, President Vizcarra enacted a range of measures to try to prevent the spread of the virus across Peru. All international flights were suspended for two weeks - all initial cases resulted from Peruvians returning from holidays in Europe - all border posts were closed, cruise ships banned from entering ports and all internal flights and bus routes suspended. A nationwide ban on all social activities was also imposed – people can only leave home with individual permission to go to work, shop for food, or for medical reasons. Police and military are patrolling the streets to enforce the restrictions. There is a 20.00-05.00 curfew. The restrictions have now been extended to 12th April.

The UK government has arranged special internal flights from Cusco and Arequipa to Lima, and chartered four planes to bring home the 400+ UK tourists and some of the up to 1,000 UK nationals who live in Peru.

MAAP update

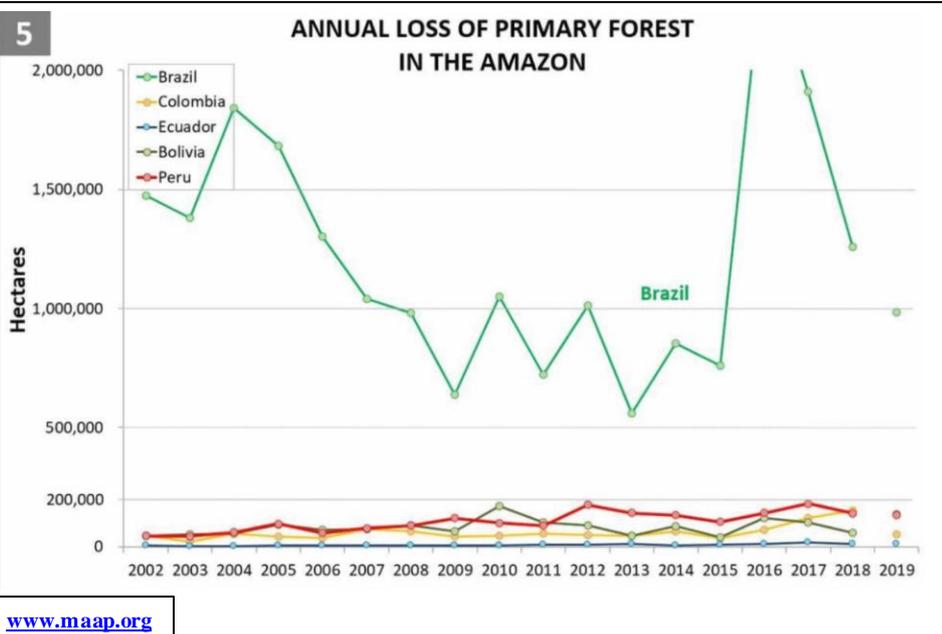
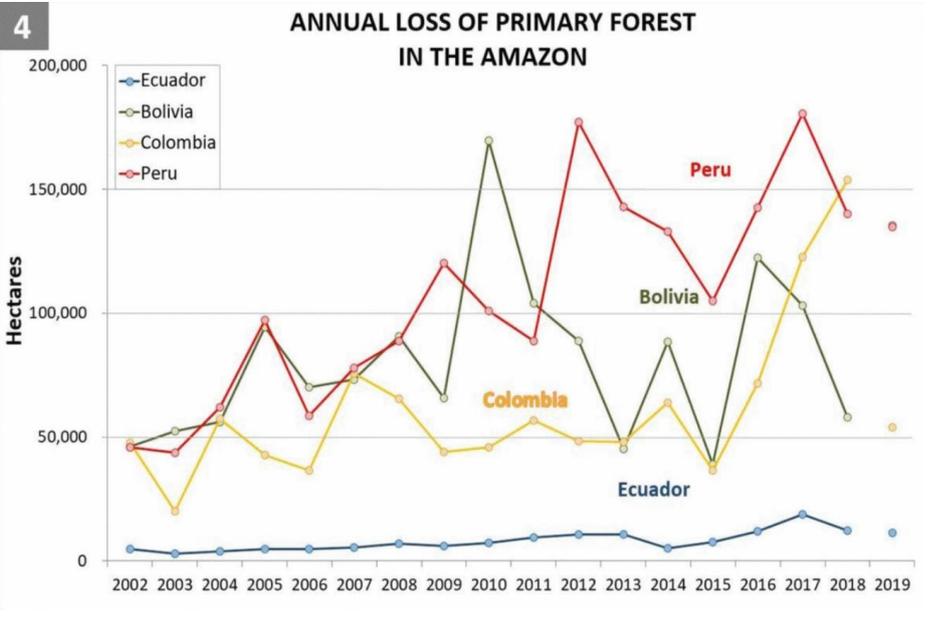
Primary forest deforestation in Peru peaked in 2017 and has declined slightly over the last 2 years (Figure 4). The stated intention of the government is to reduce deforestation to 125,000 hectares per year but this is still a lot of forest lost! Recent data for Madre de Dios shows that 20-25,000 hectares of forest are being lost each year.

Over the last 35 years, it is estimated that approximately 8 million hectares of forest have been lost in Peru, with 2.5 million hectares disappearing in the last 17 years. Over 90% of the loss is attributed to small-scale agriculture such as that seen around P.Maldonado, with illegal gold-mining accounting for much of the rest.

At any one time, in Peru, it is estimated that 125,000 families are living off 1.5m hectares of cleared land. Serfor (National Forestry Service) is trying to introduce new farming methods which enables already cleared land to be used for longer reducing the need to deforest.

Deforestation in Colombia has overtaken that in Peru now that the civil war there has ended.

However, the deforestation rates in the Andean nations with Amazon territories pale in to insignificance compared to the rates in Brazil (Figure 5).



www.maap.org

The Tambopata Library: the following articles, documents and reports about Tambopata and Madre de Dios have been viewed/sighted over the last few months. Many of them can be traced via the internet while some directly linked to TReeS will be placed on the TReeS website.

The following reports have been received from those who were awarded a **TReeS small grant** -

- '*Efectos de calidad de sitio en la producción de pulpa de Huasai en dos tipos de hábitat en sector Loboyoc, Las Piedras*', Gorki Flores (Beca 2019);
- '*Incidencia y ámbito de afectación del mercurio en aves expuestas a minería ilegal en la Reserva Nacional Tambopata - Part 1*', Jessica Pisconte (Beca 2019);
- '*Recuperación de la fertilidad y fitoextracción del mercurio con cultivos de cobertura en suelos degradados por la minería aurífera aluvial cerca de Puerto Maldonado*', Pedro Castillo (2019);

The following publications can be accessed through the 'MAAP' website: www.maap.org

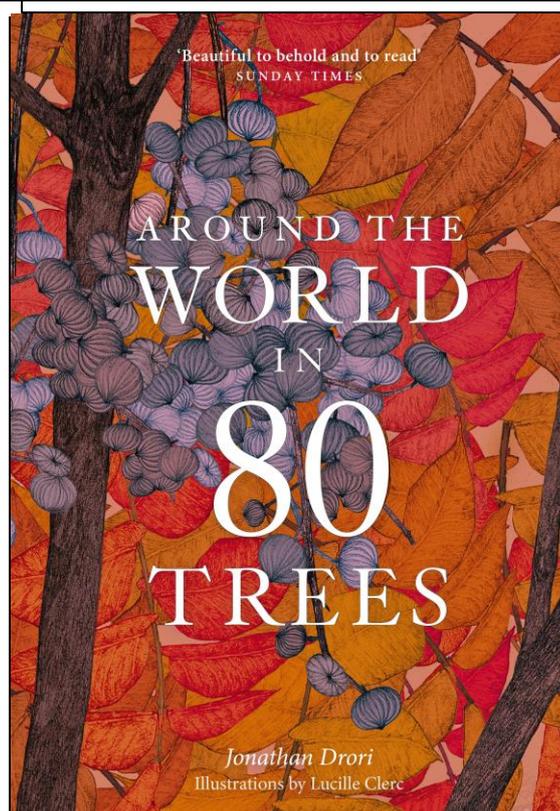
- '*Amazon Deforestation Trends, 2001-2019*', December 2019;
- '*Illegal gold-mining in the Amazon, Part 1: Peru*', MAAP 115, January 2020;
- '*Synthesis: 2019 Amazon deforestation trends and hotspots*', February 2020;

The following publications can be accessed through the 'RAINFOR' website: www.rainfor.org

- '*Evolutionary diversity is associated with wood productivity in Amazonian forest*', F.Coelho de Souza, Nature Ecology & Evolution, November 2019;
- '*Variations in soil chemical and physical properties explain basin-wide Amazon forest soil carbon concentration*', C.Quesada et al, SOIL, 6, 53–88, 2020;

The following publications were also sighted by TReeS –

- '*Descubren nueva especie serpiente en el Parque Nacional Bahauja-Sonene*', El Comercio, March 2019;
- '*The Forest Observation System, building a global reference dataset for remote sensing of forest biomass*', D.Schepaschenko et al, Scientific Data, October 2019;
- '*Estimating aboveground net biomass change for tropical and subtropical forests: Refinement of IPCC default rates using forest plot data*', D.Requena et al, Global Change Biology, June 2019;
- '*Experiencias aportes a la investigación en la recuperación de áreas devastadas por la minería en Madre de Dios*', ACCA, 2019;
- '*Plan de vida institucional del consejo Harakbut, Yine y Matsiguenka*', COHARYIMA, February 2019;
- '*Mercurio en peces de pozas mineras en Madre de Dios*', Resumen No.2, CINCIA, August 2018;
- '*Biodiversidad acuática en pozas abandonadas por minería de oro en Madre de Dios*', Resumen No.3, CINCIA, October 2019;
- '*Evaluación del mantenimiento de una plantación de teca (Tectona grandis) en Iñapari*', C.Zeballos, 2017.



This edition of the TReeS Newsletter is sponsored by – Laurence King Publishing Ltd, publishers of –

'Around the world in 80 trees'

written by Jonathan Drori with illustrations by Lucille Clerc

"In *Around the World in 80 Trees*, expert Jonathan Drori uses plant science to illuminate how trees play a role in every part of human life, from the romantic to the regrettable. Stops on the trip include the lime trees of Berlin's *Unter den Linden* boulevard, which intoxicate amorous Germans and hungry bees alike; the swankiest streets in nineteenth-century London, which were paved with Australian eucalyptus wood; and the redwood forests of California, where the secret to the trees' soaring heights can be found in the properties of the tiniest drops of water.

Each of these strange and true tales – populated by self-mummifying monks, tree-climbing goats and ever-so-slightly radioactive nuts – is illustrated by Lucille Clerc, taking the reader on a journey that is as informative as it is beautiful."

Available from all good bookshops, RRP - £12.99

'Lost city of Z' available on BBC iplayer

The film 'Lost city of Z' is currently available on BBC iplayer, for a month. Based on the author David Grann's non-fiction bestseller, it tells the story of Lt.Col.Percy Fawcett who journeyed in to the Amazon, including the Tambopata region, at the turn of the 20th century in search of 'lost' civilisations. Fawcett's obsession drove him to return to the Amazon several times culminating in his mysterious disappearance there, in Brazil, in 1925.

TReeS small grant reviewers

If you would like to join the team reviewing the small grant applications we receive each year, please could you contact us accordingly, stating your specific area of expertise/interest. We are especially interested to hear from any Spanish speaking members with an interest in fish related studies. Reviewers assess applications against a set of criteria and have at least a month in which to do so. The next round of reviewing of applications is planned to take place in October-December 2020.



TReeS T-shirts: Summer is coming!

NEW – 'Tarantula', based on a black & white line drawing by Laurel Hanna.

TReeS member price: £9.00 (M)/£10.00 (L)

Our stocks still contain a few – 'Tambopata satellite image' – featuring a Carnegie Scientific Institute (© G.Asner) brightly coloured image of the confluence of the La Torre and Tambopata rivers.

TReeS members price: £10.00 (M & L)

'Earth warrior' – design based on a Nazca lines drawing, in dark red. High quality, unbleached cotton T-shirt.

TReeS members price: £10.00 (XL only)

All prices include P&P.

TReeS Membership Renewal

Members are reminded that your annual membership fee is due in **January** each year.

Banking apps. now allow on-line banking to take place anywhere, anytime.

TReeS annual membership (£15) and merchandise details can be found on the TReeS website.

Payments can be made to the TReeS bank account –

Bank: Lloyds Bank PLC

Sort code: 30 99 83

Account no. 00574637

TReeS Membership

TReeS Membership:
£15 per annum.

TReeS contact details –
P.O.Box 33153,
London NW3 4DR
treesuk1@gmail.com

TReeS USA

A decline in membership and donations in North America in recent years has occurred to the extent that TReeS USA is no more.

We would like to thank Bud & Margaret for all their support over the years in running TReeS USA.

TReeS website

Details of **TReeS merchandise** can be found at the website:

www.tambopata.org.uk

If you would like to receive the TReeS Newsletter by email, please send a request to – treesuk1@gmail.com

TReeS News

Please extend this edition of TReeS News to friends, family and work colleagues, etc who despite the difficulties faced by many of us as a result of the coronavirus, might be interested in supporting the on-going work of TReeS.

TReeS committee 2019-20

John Forrest
Dr Helen Newing
Cecilia Montalban
Huma Pearce
Elizabeth Raine



Band-tailed Manakin (*Pipra fasciata*) © J.Pisconte