TReeS News No.76 December 2015

The TReeS newsletter provides an update 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 of the TReeS Newsletter focuses on what is happening now at Centro Nape which TReeS supported in the 1980-90s; a proposed crosscontinental railway that would traverse Madre de Dios as well as updating on gold-mining and gas exploration activities.

It also details some funding for a new Rainforest Foundation UK initiative to improve forest monitoring across Madre de Dios.

There is news of the TReeS small grants awards 2016 and an update on the reforestation project.

Centro Nape Update

In the late 1980s TReeS received a funding request from the native community of Infierno to construct an ethno-botanical centre to help conserve an area of adjoining forest. TReeS funded Centro Nape for nearly 15 years. The medicinal plant garden was established; patients were treated from Infierno, other native communities and, occasionally, elsewhere in Peru; training courses were held for healers from other native communities; and a plant manual published.

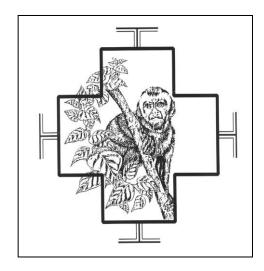
Since the turn of the century, Centro Nape has continued to function with a resident shamen treating patients from CN Infierno who would rather seek a traditional cure, or for whom western medicine is not working, or is unafford-able. He also prepares remedies such as *sangre de grado*, *una de gato*, *para para* and *chuchuhuasi* for the community – bottled with their own 'Centro Nape' labels.

To generate some income to maintain the Centre, the Posadas Amazonas lodge brings tourists to visit most days. They receive a tour of the medicinal plant garden guided by the shamen, or one of the Centre guides, and then try some of the remedies. They are received at a *Centro de Interpretaciones* and pay s/15 per tourist.

An increased number of flights, including flights direct from Lima plus improved reliability, means that the number of tourists visiting the area is increasing. The Interoceanic Highway also brings more tourists from within Peru by road.

In response to the growing opportunities, the community of Infierno has now formed their own tourist operation called 'Bawaja Expeditions' (www.tambopatatourism.com). They have built an eight cabin lodge at Centro Nape - with wood from Brazil - which opened in May 2015.

They have received several groups this year plus individuals, in total about 400 tourists. This year they are charging \$285pp for a 3D/2N stay - one





Centro Nape © TReeS

of the cheapest lodge deals on the Tambopata. The community have designed the lodge with the help of an architect and plan to run it based on their collective experiences of working at/with Posadas. The bungalows mainly have corrugated iron roofs – much cheaper than thatch, open balconies, and attractive polished wood interiors with handicrafts decorating the walls. The dining-room/kitchen is open plan and guests are shown the ingredients before meals are prepared. A large round reception, lounge, bar building is being completed which will be thatched at a cost of \$5,000. Posada tourists visiting the medicinal plant garden will not visit the main lodge.

The Centro Nape tourist experience includes a visit to Tres Chimbadas, a night walk, a night caiman search, a visit to the medicinal plant garden, walks on the forest trails, etc. The tourist price includes a fee paid to the community for staying at Centro Nape and for each visit to Tres Chimbadas lake. They are negotiating with the Tambopata National Reserve (TNR) to secure permission to visit Lake Cocacocha - the fee for visiting the TNR is \$4pp.

The lodge guide (Hilmer Mishaja) and the manager (Ruli) both speak fairly fluent english (learnt while working at Posadas). The lodge manager referred clearly to the origin of Centro Nape in the late 1980s as an ethno-botanical centre. A second medicinal plant garden has been created which will only be accessible to lodge guests.

Bawaja Expeditions are promoting a different experience to Posadas which has more luxury rooms, internet access, etc.

These developments demonstrate that the forest surrounding Centro Nape (old CN Infierno / TRZ overlap) running back to Lake Cocacocha survives intact. The medicinal plant garden still exists and the tourist operation still has a medicinal plant / ethnobotanical theme to it as a selling point.

Furthermore, this is a community development – involving both indigenous and non-indigenous members of the community – which appears to be working. There has been significant capacitation / initiative development within CN Infierno both in terms of running a lodge due to their involvement with Posadas and in a wider sense.

TReeS made a small donation to set up a visitors library at the lodge - a plastic container with about a dozen publications from the TReeS Peru library that were no longer needed in P.Maldonado. A donation of 20 Bird checklists was also made for them to sell.

Footnote – in mid-August, a special travel section in *El Comercio*, included Posadas and a visit to Centro Nape medicinal plant garden as one of seven holiday destinations in Peru that should not be missed!



Centro Nape © TReeS



China proposes Amazonian railway

China is proposing to finance a railway across South America that would link the Pacific and Atlantic coasts mirroring similar major investments in recent years, in southern Africa.

Further impetus to the proposal was given in May when Premier Li visited Peru. This followed on from the visit in 2014 of President Xi Jinping in which a memorandum of understanding to build a railway was signed with his counterparts in the Brazilian and Peruvian governments. The Chinese plan to invest \$250bn in Latin America over the next 10 years. The six year plan to build the railway has commenced with a feasibility study looking at the proposed route.

The line would run for 5,300kms connecting Mollendo, on the Pacific coast of Peru, to Açu port, on the Atlantic coast of Brazil. The line would follow the existing railway from Mollendo to Arequipa, up to Juliaca and then on to Cusco. The preferred route would cut across Madre de Dios and is likely to cross extensive areas of 'untouched' rainforest and come close to areas where 'uncontacted' indigenous peoples live.

The main justification for the line is to enable China to obtain easier access to Brazilian resources such as timber, soya beans and a range of other commodities. The China Development Bank is likely to cover the cost of the project, estimated at \$10 billion, with construction carried out by both local and Chinese companies. Most recent major development projects in Peru such as the InterOceanic highway, have been constructed by the Brazilian firm Odebrecht. However, this company is now embroiled in a major corruption scandal which includes suggestions that the InterOceanic highway was only constructed as a result of big bribes being paid. China's involvement is partly explained by a desire to reduce freight costs and speed up exports from central Amazonia to China. China is increasingly involved in Latin America, having tripled its exports to the continent in the last 10 years and become Brazil's largest ex[port market. It may also hope to create new work for its construction firms that have been hit by the slowdown in the Chinese economy.

The size of the project means that it is likely to be controversial in both environmental and social terms. Christian Poirier of Amazon Watch has already stated that - "Past mega-projects suggest that far from consulting the indigenous communities that lay in their path, the government is more likely to steamroll their rights while paying mere lip service to environmental protection. As with road projects, railways open access to previously remote regions, bring a flow of migrant workers inevitably followed by deforestation mafias and cattle ranchers, creating a perfect storm of pressures upon the forest and forest peoples."

Rainforest Foundation UK real time community based forest monitoring project

Rainforest Foundation UK has developed a new forest monitoring technique using the latest satellite link technology which has been field tested by the Rainforest Foundation in Cameroun. It is planned to operate it in three native communities in Madre de Dios, including Palma Real.

The project will enhance the capacities of the "Veedurias Forestales" - community based forest oversights created by AIDESEP (Interethnic Association for the Development of the Peruvian Rainforest) which are already operating in Ucayali, Madre de Dios and the Alto Marañon, in Peru.

This RF UK project is the first phase of a larger planned project. The initial phase will run for 8 months in 2016 and, if successful, the plan is to run it over a 4 year period in many more native communities across Madre de Dios.

FENAMAD suggested that illegal logging in the vicinity of Palma Real, Shiringayoc and Boca Ishiriwe warranted the introduction of the project in these native communities. The idea is for community members to report any illegal logging within their 'territory' and not just within the official native community lands. Initially, the project is only concerned with illegal logging but other activities could also be recorded at a later date. If illegal logging is discovered the person responsible in the community will use the monitoring device, a tablet or smartphone, to send a message via satellite. The device will primarily operate through a series of icons, rather than a written report, to allow details to be transmitted. The information that will be transmitted is likely to include – the number of trees, tree type, number of loggers, method, impact level, etc – sufficient information will need to be generated to persuade the authorities to act.

The details will go directly to FENAMAD/AIDESEP who, in turn, will advise the relevant authorities. Initially, any report will need to be verified on the ground which will require FENAMAD to send a team to the location though it may be possible to do this by radio in some circumstances. If the report is true, details will be passed to OSINFOR (Organización de supervisión de los Recursos Forestales), in Lima, and the local regional Forestry dept., in P.Maldonado.

Peru has been chosen by Rainforest Foundation UK to fully implement this project because the central institutional framework is reasonably stable and has improved a lot in recent years, though doubts remain about the effectiveness of more local institutions. It is hoped that pressure centrally, from other institutions and the media, will encourage local institutions to act.

If illegal loggers are discovered there is a risk that they will just move elsewhere to an unmonitored location. The project hopes that the expansion of the coverage following a successful initial phase will help to reduce this. The equipment is not expensive nor the training difficult so there are no major limitations in this sense to limit coverage. The publicity, implying that there is wide surveillance may also help to dissuade illegal loggers from entering an area.

*TReeS has agreed to contribute - £2,000 towards the initial start-up costs.

Gold-mining

In the light of a huge amount of evidence of environmental destruction and serious social issues (child slavery, prostitution, etc) the government undertook a series of major raids to close down up to 40 mining encampments, in August. These were mainly located along the Interoceanic highway in the La Pampa area.

The largest raid involved 1,200 police, army helicopters and 30 government officials. A significant amount of equipment was confiscated and destroyed (estimated value \$5m) while several hundred miners and their families were forced to return by bus to their homes, usually within the department of Puno.

There were major reports on both Peruvian TV and Al-Jezeera – this is an issue that the Peruvian government can no longer downplay as it once did with the BBC Wales film about Huaypetue, in the late-1990s, by the late Dilwyn Jenkins.

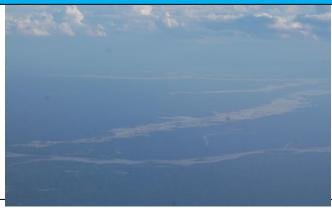
A major problem remains the limitations of the state legal system which makes obtaining legal title to mining concessions very difficult. Consequently, many long-term small miners have been unable to obtain title to their concessions and now find them-selves faced with invasion by illegal miners.

In March 2012 the then Prime Minister, Oscar Valdes, stated that all miners in MDD would be legal within 12 months but there has been almost no progress since then and most operate illegally.

The recently elected President of MDD is a miner!

Stop Press - illegal loggers and miners have brought almost all economic activity to a halt in Pucallpa and P.Maldonado in protest at government actions. The Environment Minister stated 'they are asking for complete freedom to pursue their illegal activities and that is something we cannot allow.'

Aerial view of gold-mining destruction © TReeS



Expo Amazon

Puerto Maldonado hosted, for the first time, the bi-annual show for products from all over the Peruvian Amazon. The event has previously been held in cities such as Iquitos and Pucallpa.

The Madre de Dios section was by far the largest with a wide range of products made from - coffee, cacao, fruits, as well as many handicraft stalls, including two Ese'eja (Infierno & Palma Real) and one from Monte Salvado. Some of these were private enterprises but many were supported by one or more NGOs such as Rainforest Alliance, WWF, US Aid, etc. US Aid had a major presence at the event and appears to be involved with projects right across Madre de Dios, possibly, as a means of countering narco-trafficking activities.

Two other interesting initiatives were -

-Ecomusa: ecomusamaptahuamanu@gmail.com which is based in Iberia but collects rubber from small forest tappers from across Madre de Dios, Acre (Brazil) & Pando (Bolivia). They can produce 7.5ts. of natural rubber per year and have recently sold 1.5 ts. to a French shoe company – Piola.

-Maquiwood: www.maquiwood.pe This private Peruvian company which is FSC and Rainforest Alliance certified is reforesting a degraded area near Iberia with two timber species - Teca and Bolaina. These high quality timbers are very suited to flooring and decking, and are being exported to N.America & Europe. They have larger, longer established operations in the central Peru.

There were also several smaller tourist companies present including Bawaja Expeditions, Tres Chimbadas lodge (\$325 for 3D/2N trips) and an agent promoting Tambopata Homestays.

Dilwyn Jenkins (1955-2014)

It is great sadness that we report the death of Dilwyn Jenkins a great promoter of Peru and author of the 'Rough Guide to Peru'. The guide to Peru, published in 1985, was one of the first in the series.

Dilwyn was also a great supporter of indigenous rights and had worked with the Ashaninka, in central Peru, since 1978. He was also a great supporter of TReeS, hosting a TReeS talk, in Machynlleth, many years ago where he worked for the Centre for Alternative Technology – he was a great promoter of sustainable energy and development. More recently he founded Ecotribal which works with indigenous Ashaninka communities to promote sustainable livelihoods and rainforest conservation through participatory development. He was also project manager for the charity Cool Earth, in Peru.

Peru News

The latest Presidential election polls suggest that Keiko Fujimori (33%) has taken an early lead (rumours remain that her campaign is heavily influenced by her dad - ex-President Alberto Fujimori from prison, if elected) over ex-Minister Pablo Kuczynski (16%), ex-President Alan Garcia (8%), ex-President Alejandro Toledo (5%) and Daniel Urresti representing the current governing party (3%). All the main candidates are offering a neo-liberal, authoritarian, right-wing approach.

Ex-President Bermudez (1975-80) is facing legal proceedings for his role in Operation Cóndor in the late 1970s. Operation Cóndor was a joint plan involving the military leaders of Chile, Argentina, Uruguay and Brazil, in which left-wing activists were kidnapped. All living ex-Presidents and almost all the Presidential candidates for the 2016 elections are currently embroiled in law suits.

Peter Cardenas Schulte, once a senior member of the MRTA, has been released after serving 25 years in prison. He is one of the first of several MRTA and Sendero Luminoso leaders who are now approaching their release dates.

In August, a 30 day state of emergency was declared in six Provinces across Cusco and Apurimac in response to anti-mining protests. In the worse incident 4 died when 7,000 protestors converged on the high altitude, Chinese owned, Las Bambas mine, to protest about environmental concerns and working conditions.

The IMF & World Bank held their latest joint-global summit in Lima, in early October.

It is estimated that the current global economic downturn will cost Peru 2-3% of GDP.

Machu Picchu has recently been surveyed by Google Street View and a detailed tour of the site will soon be made available on-line.

We are grateful to the Peru Support Group (PSG): www.perusupportgroup.org

and David Hill: @DavidHillTweets & www.hilldavid.com) for the sourcing of some of the details in this section of the Newsletter.



Dilwyn with an Ashaninka woman © Alicia Fox

TReeS Small Grants (Becas) program

The announcement of the 2016 small grants programme was made recently, however, less funding is available for the 2016 grants. Seven small grants were awarded in 2015, the joint most awarded in any single year.

The small grants programme is an important contribution to the career development of young Peruvian scientists who will, potentially, be researching, working in and promoting Amazonia for decades to come. TReeS funding assists them in gaining all important field work skills that may allow them, subsequently, to join other more significant field research projects and conservation organisations.

Appeal: £25+ donations towards the cost of the 2016 grants programme. Your support is essential in maintaining this programme and especially so this year as some significant funding for this programme is no longer available to us.

Expedition grants

TReeS offers small-scale support to UK under graduate University expeditions sometimes in conjunction with the Anglo-Peruvian Society. This year TReeS offered small-scale funding and a selection of relevant TReeS merchandise to two expeditions visiting the Manu Learning Centre operated by CREES, in the Alto Madre de Dios.

*Exeter University – to study the efficiency of rapid herptile surveying methods as well as looking at the biodiversity of herptiles in the area with a focus on some specific species.

*Glasgow University – to establish the degree of biodiversity at increasing distances from a forest community along a series of transects, whilst analysing the soil quality along the transects.



La Estancia – Camu camu sapling in centre © TReeS

Reforestation project update

A visit was made to La Estancia Bello Horizonte (estancia@estanciabellohorizonte.com) to review the progress of the project with APRONIA (*Asociación para la protección del niño y del adolescente*). The project aims to reforest land much of it a recently vacated ex-ranch that now belongs to the lodge.

The lower, wetter land has been planted with *camu-camu* (*Myrciaria dubia HBK McVaugh*) and the higher, drier land with a variety of mainly fruit trees.

*Camu-camu -

The saplings for this part of the project had to be brought in by IIAP (*Instituto de Investigaciones de la Amazonía Peruana*) Puerto Maldonado from IIAP Iquitos. IIAP then prepared the saplings for planting in their nursery. The saplings have to be planted out in the wet season November-April. In February 700 of the 1,100 saplings were in a suitable condition for planting out.

A visit in August revealed that almost plants had successfully taken and were showing signs of new growth though this appeared to be slower than that predicted after five months by the Forestry engineer working with the project.

The remaining 400 saplings have been cared for by IIAP and will be ready for planting in the forthcoming wet season. IIAP have more *camu-camu* saplings available and may be able to supply up to 1,000 more. They would like to try a slightly different site at the lodge for the second planting.

*Other plantings –

APRONIA was also in a position to begin the wider reforestation of the ex-ranch lands. A two hectare area has been planted with various species of banana, cacao - which is being planted widely across Madre de Dios in response to a global cacao shortage - and some avocado and brazil-nut saplings. These trees will provide fruit for the lodge and the surplus can be used by the Café and ice-cream parlour run by APRONIA in Puerto Maldonado: 'Gustitos de la cura'.

The next phase is for a further eight hectares to be reforested. A small area of pasture will be left to demonstrate how the land was before as a ranch.



La Estancia - recently reforested area © TReeS

<u>Wildlife Conservation Society - Bahauja-</u> <u>Sonene National Park Expeditions</u>

WCS has recently published reports of the findings of two 10 day inventory expeditions in the PNBS (Bahuaja-Sonene National Park).

In 2011 one expedition was made up the river Tambopata to just beyond its confluence with the Tavara. Transects were then cut north across Cerro Cuchilla (300-900m).

In 2013 a second expedition went up towards the headwaters of the Malinowski river and transects were cut running south up Quebrada Chocolatillo (320-1200m).

In Cerro Cuchilla 424 vascular plant species were recorded and in Quebrada Chocolatillo 646 species with *Fabaceae* and *Rubiaceae* the most common. In Quebrada Chocolatillo 266 tree species with a diameter of 10cm+ were identified in 0.8 hectares.

In Cerro Cuchilla 54 mammal species were identified and in Quebrada Chocolatillo 62 species. In the former 3 species new to the PNBS were found – two bat species (*Trinycteris nicefori & Glyphonycteris sylvestris*) and the Andean bear (*Tremarctos ornatus*).

In total 569 bird species were identified from 61 families, 31% of the 1,836 bird species known within Peru. At Cerro Cuchilla 460 species were identified and 439 at Quebrada Chocolatillo, 73 of them new for the PNBS.

In total 54 amphibian species were identified, of which 24 were new for the PNBS; and 44 reptile species, 13 of which were new for the PNBS. Furthermore, a small frog (*Cochranella nola*) is a new recording for Peru and two species (*Oscaecilia* sp. & *Allobates* sp.) may be new to science

In total 335 butterfly species were recorded, 274 species in Cerro Cuchilla and 122 species in Quebrada Chocolatillo. In addition, 327 moth species were identified, 279 species in Cerro Cuchilla and 154 species in Chocolatillo; plus 78 beetle species were registered, just over 50 species in each location.

In terms of fish species, 64 were identified – two of which were new to Peru and five of which may be new to science.

The trips involved many biologists with TReeS connections, including Peruvian biologists – past recipients of a TReeS *beca*, and Chris Kirkby of Fauna Forever, while the photos were taken by Andre Baertschi – an internationally renowned photographer with longstanding connections with the Tambopata area.

In conjunction with the scientific expeditions, WCS also took non-scientists from very different backgrounds up the Tambopata river to undertake

an artistic inventory. The group included artists, musicians, fashion designers, and chefs – Virgilio Martinez of the upmarket Lima restaurant chain, in London. This trip inspired a Lima fashion show, music concerts in Puno, art shows in Lima, and new restaurant dishes, including in at least one London restaurant.

Reports on both trips can be found at www.wcsperu.org/en-us/wcsperu/publications.aspx

Casa Miraflores update

Only minimal repair work with TReeS support has taken place over the last 2 years so the conditions have further deteriorated though not significantly.

There were fifteen students living in the house at the start of the academic year, double the number living there two years ago but only five now remain. They are training to become medics, teachers, forestry engineers, etc at the Universities in Puerto Maldonado. It is more appropriate for them to go to University in Puerto Maldonado than elsewhere due to their Secondary education level, the living and climatic conditions — to succeed at University in Cusco or Lima, is very challenging. These students are the only indigenous people who are attempting to secure a professional qualification in Madre de Dios apart from about 20 others who have a home or relatives, in P.Maldonado.

The crucial repairs remain the roof, external and internal holes still allowing birds to enter; the windows, anti-insect and security needed; toilets and water system, there is only one working tap in the whole building; walls, external & internal holes. The meeting 'house' in the centre of the Casa has now also been converted in to a room by attaching plastic and cardboard sheeting around the outside.

TReeS is planning a Crowdfunding appeal to cover basic repair costs – up to \$5,000. A short video was made in conjunction with FENAMAD which consists of a tour of the house highlighting the conditions and what needs to be done. We hope to be able to advise TReeS members about this very soon.



Casa Miraflores © TReeS

Lot 76 (Hunt Oil)

Early in 2015, Hunt Oil suspended their operations in Lot 76 and decided not to drill seven more wells, after the first well drilled came up dry. Hunt has invested nearly \$150m in the operation and it is assumed that they were not expecting such an outcome, especially not from the first well. Hunt informed FENAMAD that operations were suspended for six months but during this period they have extended their Lot 76 contract for three years with MINEM.

This suggests that they -

- still expect to find exploitable reserves of gas (and oil?) in Lot 76;
- are awaiting further technological developments that will make drilling easier in a geologically challenging area;
- are awaiting the outcome of the Peruvian Presidential election next year which could lead to the election of a candidate even more in favour of exploiting the Amazon;
- are awaiting the outcome of the on-going discussions with Iran because if the trade sanctions imposed on Iran are lifted, then significantly more gas/oil may enter world markets and make exploiting Lot 76 unviable;

Or, a combination of the above factors.

<u>AIDER</u>

In 2008 AIDER (*Asociación para la investigación y desarrollo integral*) (www.aider.com.pe), a Peruvian NGO founded in 1986, has been appointed to administer all investigations and monitoring within the TNR and PNBS. The agreement is for 20 years.

AIDER's objectives include -

- -formulating and implementing UN REDD (reduction of 'greenhouse gas' emissions from deforestation) objectives within the area;
- -promoting and facilitating the sustainable use of resources within the area;
- -expanding the data base of biological investigations, preparing strategies for undertaking further investigations, and carrying out further investigations within the area; improving the infra-structure and services available to investigators; and implementing a system to co-ordinate the publication of research undertaken.

This newsletter is supported by:

Uncontacted Tribes Don't Need the "Protection" of western Anthropologists -

Stephen Corry, Director of Survival International, has attacked the argument in a recent Science editorial that uncontacted tribes should be forcibly contacted.

U.S. anthropologists Robert Walker and Kim Hill argued that governments are violating their responsibility to protect isolated tribes if they "refuse authorized, well-planned contacts." But Corry evokes Brazil's experience of forced contact missions, which was official policy for decades but led to the decimation of countless tribes.

Sydney Possuelo, former head of Brazil's indigenous affairs department FUNAI, recounts, "I believed it'd be possible to make contact with no pain or deaths. I organized one of the best equipped fronts that FUNAI ever had. I set up a system with doctors and nurses. I stocked up with medicines to combat the epidemics which always follow. I had vehicles, a helicopter, radios and experienced personnel. 'I won't let a single Indian die,' I thought. And the contact came, the diseases arrived, the Indians died."

Stephen Corry further refutes Walker and Hill's claims that uncontacted tribes are unlikely to be "viable"; that "soon after peaceful contact... surviving indigenous populations rebound quickly from population crashes"; and that they are unlikely to "choose isolation if they had full information."

Corry asks, "What tribe would abandon isolation if it could first study Pine Ridge or the Guarani, and if it knew that many of its children would die as a result? There are plenty of contacted tribes who do know what happens and respond by striving to protect isolated relatives from contact."

An Awá man from Brazil's northeastern Amazon said, "When I lived in the forest, I had a good life. Now, if I meet one of the uncontacted... I'll say, 'Don't leave... there's nothing in the outside for you." Two out of three recently contacted Awá fell critically ill after being forced out of the forest in December 2014.

Corry argues that the key to stopping the annihilation of tribal peoples in South America is protecting their land rights — which are enshrined in national and international law. All uncontacted tribal peoples face catastrophe unless their lands are protected.

"It's time to stand in resistance against those who just can't abide that there are some who choose a different path to ours, who don't subscribe to our values, and who don't make us richer unless we steal their land," Corry writes in U.S. journal Truthout.



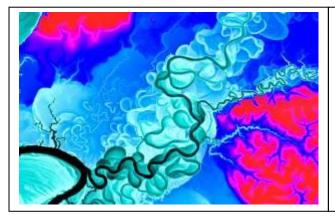
TReeS Newsletter by email

Due to ever increasing postal charges, TReeS plans to distribute the vast majority of newsletters by email in future - we hope that this will be the last newsletter sent out to most members. On this basis, if you have received this Newsletter by post and don't think we have your email address in our database, please email us at: treesuk1@gmail.com
Receiving the newsletter by post can still be requested.

TReeS Library: the number of people consulting the two UK libraries in person has greatly declined over the last 5 years. Consequently, since June 2015, we are no longer placing hard copies of documents/reports relating to Tambopata & Madre de Dios in the libraries. We will still list details of all new documents and reports received in the newsletter (see below) and endeavour to place them or links to them, on the TReeS website. Hard copies can be requested from TReeS for a suitable payment to cover p/copying and P&P.

Recently received documents and reports -

- 'Global demand for gold in another threat for tropical forests', N.Alvarez-Berrios & T.M.Aide (2015);
- 'Parque Nacional Bahuaja-Sonene: Inventários Biológicos Rápidos' Wildlife Conservation Society (2015);
- 'Parque Nacional Bahuaja-Sonene: Inventário Artistico' Wildlife Conservation Society (2015);
- 'Dynamics, aboveground biomass and composition on permanent plots, Tambopata National Reserve. Madre de Dios, Peru', N.C. Pallqui, Revista Peruana de biología 21(3): 235 242 (2014);
- 'Markedly divergent estimates of Amazon forest carbon density from ground plots and satellites', E.Mitchard, Global Ecology and Biogeography (2014);
- 'Parque Nacional Bahuaja-Sonene Inventario Biologicos rapidos', Wildlife Conservation Society (2015);
- 'Drought sensitivity of Amazonian carbon balance revealed by atmospheric measurements', L.Gatti, doi:10.1038/nature12957;
- -'Size and frequency of natural forest disturbances and the Amazon forest carbon balance', F.Espirito-Santo, Nature Communications 5:3434 (2014);
- 'Drought impact on forest carbon dynamics and fluxes in Amazonia', C.Doughty, doi:10.1038/nature14213;
- 'Long-term decline of the Amazon carbon sink', R.Brienen et al, doi:10.1038/nature14283.



New TReeS T-shirt

TReeS has a limited numbers available of a new T-shirt featuring the Carnegie Scientific Institute (Carnegie Airborne Observatory / Greg Asner ©) satellite image of the confluence of the La Torre and Tambopata rivers - see last Newsletter.

The T-shirt is available in Medium & Large sizes on a good quality white cotton T-shirt.

Price: £12.00 each, including postage, or £10 each for any 2, or more.

TReeS Membership

Members are reminded that the basic TReeS membership rate is now £15 / annum.

Membership is due on the 1st of **January** each year.

We would be most grateful if members could amend their standing orders, if necessary.

All cheques are payable to – 'TReeS'.

TReeS Membership: £15 per annum.

TReeS contact details – P.O.Box 33153, London NW3 4DR

TReeS USA -

P.O.Box 842, Shasta Lake, CA96019-0842, USA.

TReeS USA is run by Bud and Margaret Widdowson.

All members in Canada / the USA are requested to pay their annual membership via TReeS USA.

TReeS committee 2014-2015

Sally Edwards
John Forrest
Dr Helen Newing
Huma Pearce
Elizabeth Raine
Daniel Turner
Rebecca Warren

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 in future by email, please send a request to –

treesuk1@gmail.com

TReeS Merchandise

Other TReeS T-shirts (See previous Newsletters for images) -

*'Earth Warrior', XL only, Andean red image on an unbleached T-shirt.

Price: £9.00, including P&P.

*'Rainforest to Desert', M & L, full colour design on a white T-shirt.

Price: £10.00, including P&P.