



# NEWSLETTER

Vol. 2 - August 2014

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## News - Forthcoming

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- [The 3<sup>rd</sup> Asia Regional Conference of the Society for Conservation Biology](#)

**August 19. - 22., 2014, Melaka, Malaysia**

Oral presentation by SP6 accepted: "Human-elephant conflicts in rubber-dominated landscapes surrounding protected areas in Southern Thailand"

- [2014 International Conference on Rubber \(2014 ICR\)](#)

**August 28. - 30., 2014, Thaksin University, Thailand**

Oral presentation by SP6 accepted: "Can Rubber Cultivations Serve as Wildlife Habitat? A Case Study from Tai Rom Yen National Park, Thailand"

- [Tropentag 2014](#)

**September 17. - 19., 2014, Prague, Czech Republic**

[Contributions](#)

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## Conference contributions and meetings

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SP6

- [Local stakeholder workshop](#) by the "Department of National Parks"

**May 14. - 15., 2014, Surat Thani, Thailand**

Contribution: "Conflict with elephants around Tai Rom Yen National Park"

SP8

- [IFSA 2014,](#)

**April 1 - 4, 2014, Berlin, Germany**

Contribution: "From information giving to mutual scenario definition: Stakeholder participation towards Sustainable Rubber Cultivation in Xishuangbanna, Southwest China"

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## Scientific Topics

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SURUMER - GIZ Laos Learning visit to Jinghong successfully conducted

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Model- Workshop conducted by SURUMER PhD students

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Water Turbidity Investigations continue

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Soil Erosion data show first differences

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Data collection on insect diversity and bee keeping according to plan

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Farmer Workshop conducted in NRWNR

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Camera traps and towels reveal animal diversity in Nature reserve

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## SURUMER - GIZ Laos Learning Visit to Jinghong

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The SURUMER- GIZ Learning visit to Jinghong, from 3<sup>rd</sup> to 7<sup>th</sup> of June 2014 was successfully conducted. A delegation of representatives from the GIZ Laos and the “Agriculture and Forestry Department of Luang Namtha Province” were introduced to rubber cultivation in Xishuangbanna, the SURUMER and the Green Rubber projects as well as the approaches and work of Naban River Watershed National Nature Reserve (NRWNNR) and the Yunnan Institute of Tropical Crops (YITC).

Several excursions, amongst others to the SURUMER experimental sites, a rubber factory of the Hainan State Farm Group, and a tea factory in Menghai, were organized and ways to improve the cooperation between the different institutions were discussed.

The contributions and effort of all participants and organizing institutions are highly appreciated! (PMC/SP5)



Pic. 1 - Group picture in front of Hainan Rubber factory

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Pic. 2 - Dr. LIU Xiuwei from the Institute of Zoology (IOZ) Beijing and SURUMER SP4 explaining her activities to trap bees

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## PhD Model Workshop conducted in Jinghong

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At 17<sup>th</sup> of May 2014 PhD students of SURUMER met for a workshop in Jinghong to discuss about the interconnectedness of the different modules and models within the project. The aim of workshop was to get an overview and to discuss the different models which are used by the different Subprojects. Finally we also talked about possible linkages of work outputs within the wider SURUMER team and where data can be correlated and compared. (SP3)

### Agenda:

1. Welcome and Introduction
2. Presentations of all participants about their work outputs and the models they are using
3. Short explanation of modeling framework in SURUMER
4. Discussion about interconnectedness of models
5. Summary and Workshop picture



Pic. 3 - Group photo of the workshop participants

## Water turbidity Investigations continue

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The water monitoring stations installed at the outlets of two small subwatersheds are revealing interesting data. During sunny days the station which monitors forest runoff presented higher turbidity than the one on Nanhuicang River which monitors rubber plantation runoff. This disagrees with last year's observations. However, a further investigation revealed that the higher turbidity in Mansong River (running along forest) mainly resulted from new rice and corn growing along the river; and although the crop area was not large, disturbed sediments from rice fields were discharged into the river by the irrigation water. When the rain finally arrived, turbidity was higher from the rubber dominated watershed compared to Mansong River, as expected and consistent with the plot level measurements. At the end of July, luckily the first storm came to nature reserve during day time. This rainfall only lasted for less than 2 hours but with high intensity and it induced high turbidity changes which allowed sampling of different turbidity water samples, varying from 48 NTU to 798 NTU to be sent to XTBG for further analysis. (SP1)



Pic. 4 - High turbidity and water level after the rainfall

## Soil Erosion data show first differences

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The soil erosion USLE experiment is going well. Besides, splash cups have been installed in mid age rubber since May revealing significant splash erosion events. Based on preliminary results, rubber terraces showed more splash erosion than forest protection areas which can be attributed to less ground cover and higher soil bulk density on the man build terraces. More insights should be revealed by leaf area index (LAI) measurements since a well developed tree canopy may play an important role in reducing runoff erosion but may increase splash erosion due to large water drop sizes. (SP1)



Pic. 5 - Erosion presented by splash cup

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## Farmer Workshop conducted in NRWNR

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During a farmer workshop conducted by SP8 and SP4 on 21<sup>st</sup> April 2014 in NRWNR (Pic. 5), Pia explained the goals and problems of the SP4 activities concerning bee ecology and rubber cultivation. During the discussion, farmers showed high interest in practical approaches to improve bee keeping and expressed concern on possible negative impacts of pesticide use. Based on the experience of the workshop, SP4 is planning to develop practical guidelines to be discussed with farmers in another workshop with SP8. (SP4)



Pic. 6 - Farmer workshop conducted by SP8 and SP4 on April 21., 2014 in NRWNR

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## Data collection on insect diversity and bee keeping according to plan

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The activities of subproject 4 in the summer season were conducted according to plan. Xiu-Wei Liu, post doc from the Institute of Zoology, CAS, Beijing, successfully works on the recording of solitary bees in NRWNR and will continue her activities until the end of the rainy season to cover as much species as possible in relation to the offer of flowering resources available at different times.

The second main activity included detailed data collection on bee keeping and honey production of local farmers. With help of Pu Wen Cai from the Nabanhe Nature Reserve, honey samples of different honey bee and stingless bee species were collected. Interviews with farmers showed that bee keeping is very common among farmers. *Apis cerana*, the Asian honey bee, is attracted by artificial hives which are usually colonized in February and abandoned in July to October. Honey is harvested between March and May and can yield up to 5 kg honey per hive (Pic. 7). In addition, nests of stingless bees (*Trigona* species) are collected in the wild and then become established at the farm. There, the stingless bees usually remain and can provide 1-5 kg of honey per year. In addition, many farmers collect honey from wild nests of *Apis florea*, *Apis andreniformis* (Pic. 8) and *Apis dorsata*. Most farmers sell honey to traders and gain additional household income with this activity.



Pic. 7 - *Apis cerana* honey harvest with PU Wen Cai

Finally, we collected 21 honey samples from bee hives of farmers of the different bee species and from different locations. From these samples, and additional 21 samples collected in 2009, pollen will be analyzed in order to identify the most important flowering plants visited by the respective species at different locations with help of a pollen reference collection, covering around 100 plant species from NRWNR. (SP4)



Pic. 8 - Collecting a nest of *Apis andreniformis* from the wild

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## Local stakeholder workshop in Surat Thani

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SP6 participated in a stakeholder workshop on human-elephant conflicts in Surat Thani, organized by the Thai Department of National Parks, Wildlife and Plant Conservation in May this year. Participants were representatives of local farming communities, politicians, National Park staff and researchers. We gave a talk on our work and provided some preliminary results. We also discussed with the participants about their experiences and expectations concerning conflicts with elephants. It was a fruitful exchange and the participants agreed that a second workshop would be desirable. (SP6)



Pic. 9 - Workshop on human-elephant conflicts in Surat Thani organized by the Thai Department of National Parks, Wildlife and Plant Conservation in May

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## SP6 Work Progress

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Our field work is going very well and currently we are re-sampling our 50 transects and our 30 camera trap locations. The cameras shot nice pictures of elephants, carnivores, monkeys, smaller ungulates and many rodents. Our new MSc student, Alvaro Mañas, has arrived in the field and although we encountered a group of macaques, in contrast to the last MSc experience, this time they remained peaceful – as did the scorpion that made a new home in Alvaro’s towel. We even got a small welcome ceremony by an elephant family upon his arrival at our base camp in the study site. Alvaro’s task will be to identify attractive elephant foraging spots and assess the potential of wildlife corridors as mitigation measures for human-elephant conflicts in rubber-dominated landscapes during his stay in Thailand. (SP6)



Pic. 10 (left) - Even our 1.94m tall student Alvaro looks somehow small next to an elephant’s footprint

Pic. 11 (right) - Setting camera traps is not always an easy task – luckily we have very committed (and sportive) team members



Pic. 12 - This Baby elephant was travelling alone, we hope by now it found its mother again

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## Tropentag 2014 - Accepted presentations

No.	Authors	Title	Poster	Oral	Institutions involved	Subproject
1	Häuser, I., Cotter, M., Sauerborn, J.	Trade-Off Analysis between Singel Ecosystem Services - State of the Art		x	Institute for Plant Production and Agroecology in the Tropics and Subtropics (380b), University of Hohenheim, Germany	PMC
2	Liu, H., Blagodatskiy, S., Cadisch, G.	Effect of Water Erosion and Land Management on the Soil Carbon Stock of Intensive Rubber Plantation in Xishuangbanna, South-west China	x		Institute for Plant Production and Agroecology in the Tropics and Subtropics (380a), University of Hohenheim, Germany	SP1
3	Yang, X., Blagodatskiy, S., Cadisch, G., Xu, J.	Carbon Storage Potential of Rubber Plantations of Different Age and Elevation in Xishuangbanna	x		Institute for Plant Production and Agroecology in the Tropics and Subtropics (380a), University of Hohenheim, Germany; Key Laboratory of Economic Plants and Biotechnology, Kunming Institute of Botany, CAS; World Agroforestry Centre, China & East Asia Office c.o. Kunming Institute of Botany, CAS, China	SP1
4	Lang, R., Blagodatskiy, S., Cadisch, G., Xu, J. C.	Soil Respiration in Rubber Plantation and Rainforest Indicate Different Processes During the Rainy Season	x		University of Hohenheim, Institute for Plant Production and Agroecology in the Tropics and Subtropics (380a), Germany Kunming Institute of Botany, The Chinese Academy of Sciences, Center for Mountain Ecosystem Studies, China	SP1
5	Rajaona, A. Schappert, A., Stürz, S., Cao, K., Asch, F.	Comparison of Leaf Area Index Measurements in Rubber Plantations and Secondary Forest in Xishuangbanna, China	x		Institute for Plant Production and Agroecology in the Tropics and Subtropics (380c), University of Hohenheim, Germany Chinese Academy of Sciences, Xishuangbanna Tropical Botanical Garden, China	SP2
6	Wang, J., Aenis, T.	The Role of Stakeholder Analysis for Sustainable Development: Experiences from Rubber Cultivation in Southwest China	x		Humboldt-Universität zu Berlin, Agricultural Extension and Communication Group, Germany	SP8
7	Aenis, T., Langenberger, G., Wang, J., Cadisch, G.	Adaptive Management of Inter- and Transdisciplinary R&d Projects: Case Study in Southwest China	x		Humboldt-Universität zu Berlin, Agricultural Extension and Communication Group, Germany	SP8
8	Shi, M., Hermann, W., Jikun H.	Rubber Intercropping Adoption of Smallholders in Xishuangbanna, China	x		Institute of Development and Agricultural Economics, Leibniz Universität Hannover, Germany; Center for Chinese Agricultural policy, CAS, China	SP9

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