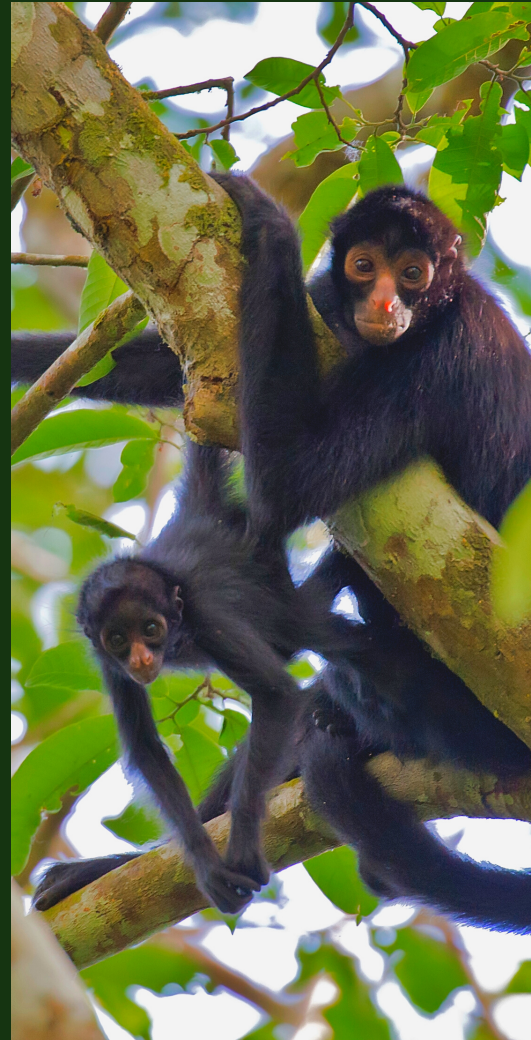


PROGRAM



58TH ANNUAL MEETING OF THE ASSOCIATION FOR TROPICAL BIOLOGY AND CONSERVATION

Conserving Tropical Biodiversity and Achieving
Socio-Ecological Resilience in the Anthropocene:
Opportunities and Challenges

JULY 10-14, 2022

CARTAGENA DE INDIAS, COLOMBIA

58th Annual Meeting of the
Association for Tropical Biology and Conservation

Conserving Tropical Biodiversity and Achieving
Socio-Ecological Resilience in the Anthropocene: Opportunities
and Challenges

July 10-14, 2022

PROGRAM

(Plenary Sessions, Symposia, Oral Sessions & Social Events)





Program of the 58th Annual Meeting of the Association for Tropical Biology and Conservation

Conserving Tropical Biodiversity and Achieving Socio-Ecological Resilience in the Anthropocene:
Opportunities and Challenges
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Printed in Colombia

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Presentation

Welcome to Cartagena! ¡Bienvenidos a Cartagena!

We are very pleased to host the 58th Annual Meeting of the Association for Tropical Biology and Conservation (ATBC). Nearly three years have passed since our last in-person meeting in Madagascar and the role of ATBC as a catalyst for the scientific understanding and conservation of tropical ecosystems has only become more important. During the last decades, we have witnessed a continuous degradation of tropical ecosystems worldwide, largely driven by a growing human population, an unsustainable appetite for consumerism, and the increasing impacts of climate change. The COVID-19 pandemic has exacerbated poverty worldwide, further aggravating environmental tensions. Not only is there enormous pressure on biodiversity and the ecosystem services it provides, but there is also a significant increase in risk for the safety of local communities and environmental activists. In many parts of the world, socio-ecological degradation is the result of poor governance that drives an increase in diverse illegal activities such as drug and animal trafficking, mining, timber extraction and large-scale deforestation. Despite these serious concerns, there remain innumerable ways to act, to construct a sustainable future for all. Basic and applied research are fundamental to our understanding of the highly complex functioning and the evolutionary processes taking place in tropical ecosystems. Conservation research and action are required to protect existing ecosystems, and restoration is central to recover what has been lost. However, we must also acknowledge the importance of the socio-economic contexts and work with local communities, social scientists, the private sector, and state institutions, among others, to make sure that our initiatives persist in the long run. The annual ATBC2022 meeting represents an outstanding opportunity to do just that - a forum to exchange knowledge, strengthen our collaborative networks, and construct a sustainable future for tropical ecosystems in the Anthropocene.

ATBC2022 has over 840 confirmed abstracts, and we expect to host about 875 attendees from 61 countries. This year we are offering, for the first time, a hybrid meeting with 83.2% of delegates attending in-person and 16.2% participating virtually. The program includes six keynote presentations, one debate, three poster sessions, 42 symposia, 89 oral sessions and three field trips. We also have 14 workshops and three field courses led by members of the ATBC community that have contributed their time to these important capacity building opportunities.

We are very thankful for the hard work and dedication of our logistics team, the scientific committee (23 people from all over the world), our volunteers (28 people, mainly students from Colombia), the University of el Rosario and the Conferences Committee of the ATBC.

We hope that you will enjoy the meeting!

The Local Organizing Committee

Credits

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Crepes & Waffles



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Fundación para la Conservación de los Andes Tropicales (FCAT)

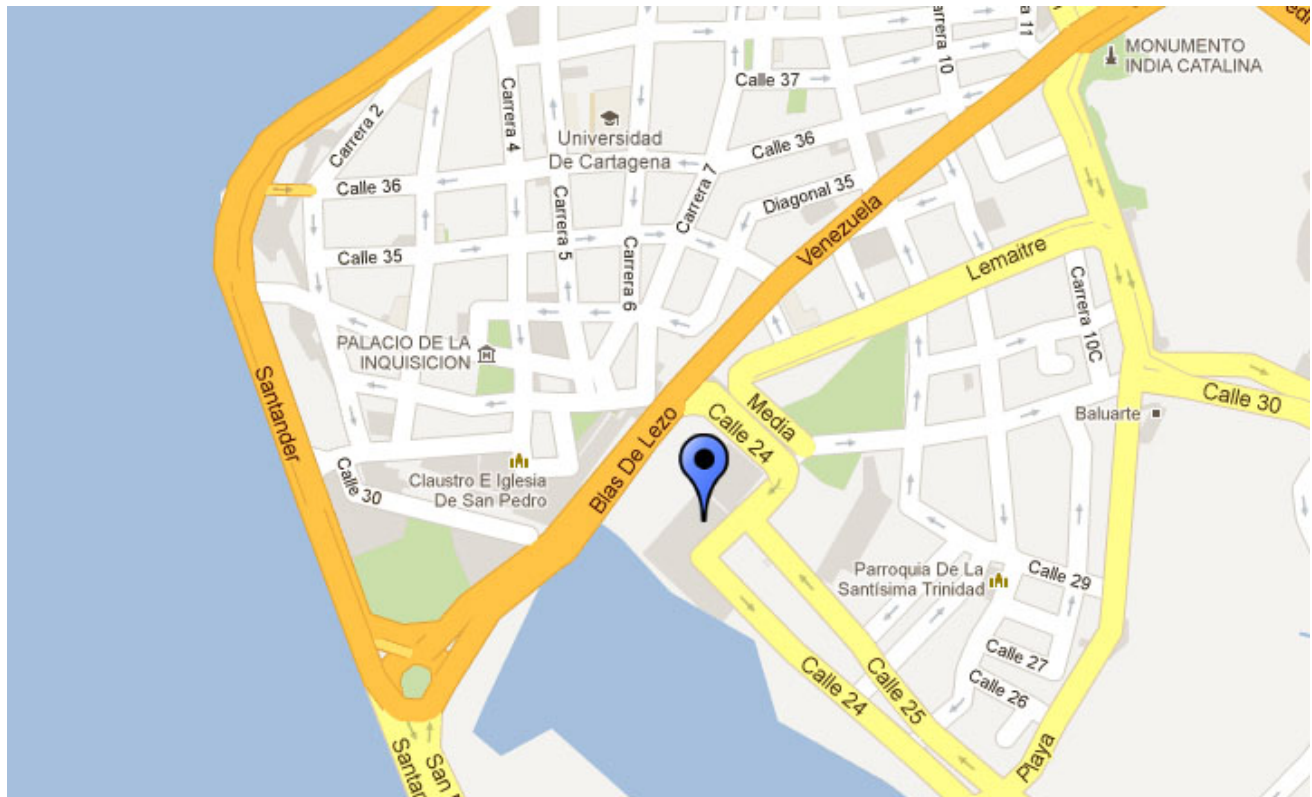


Tiputini, Universidad San Francisco de Quito

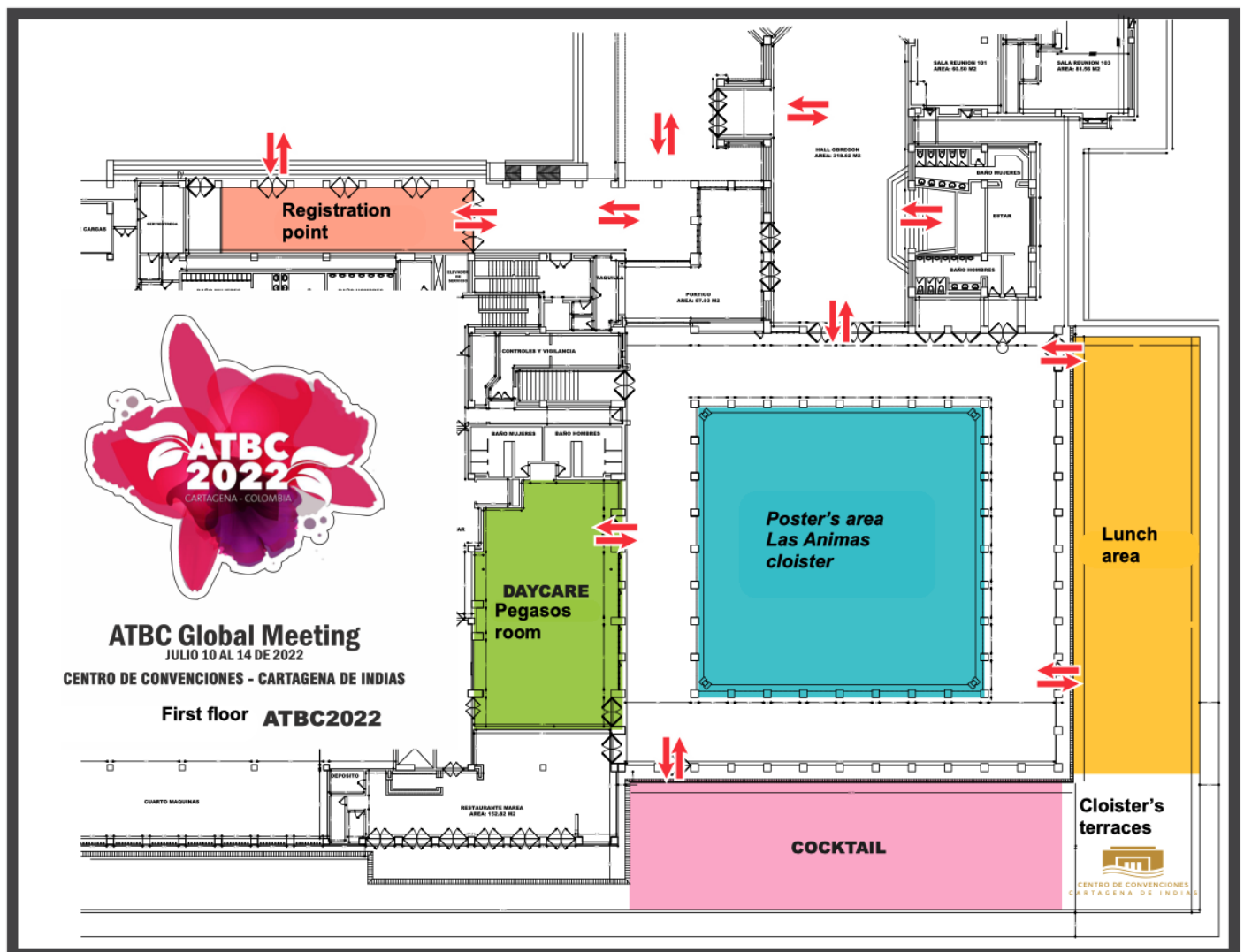


Biologika

Location of the Venue in Cartagena



Cartagena Convention Center (CCC)



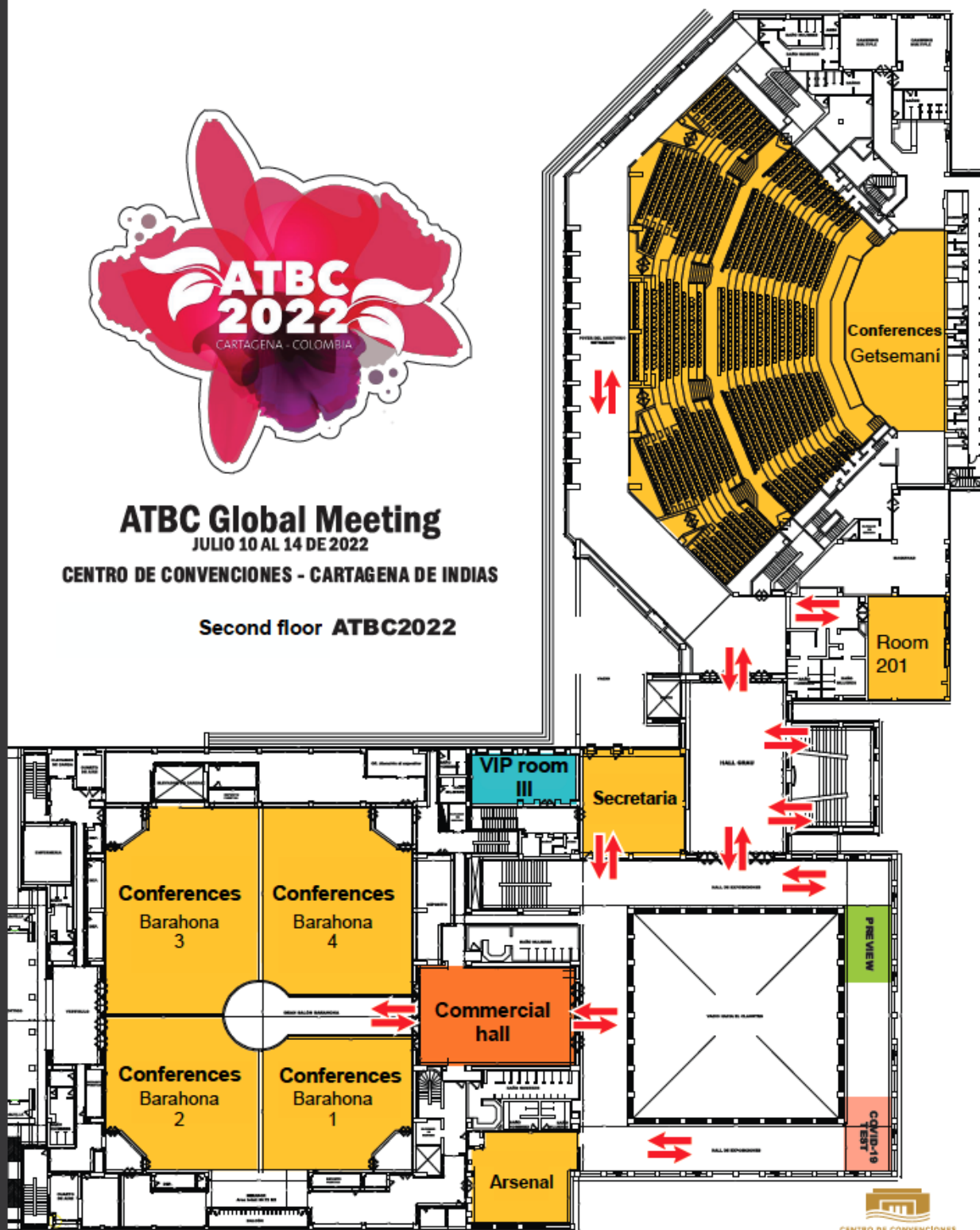


ATBC Global Meeting

JULIO 10 AL 14 DE 2022

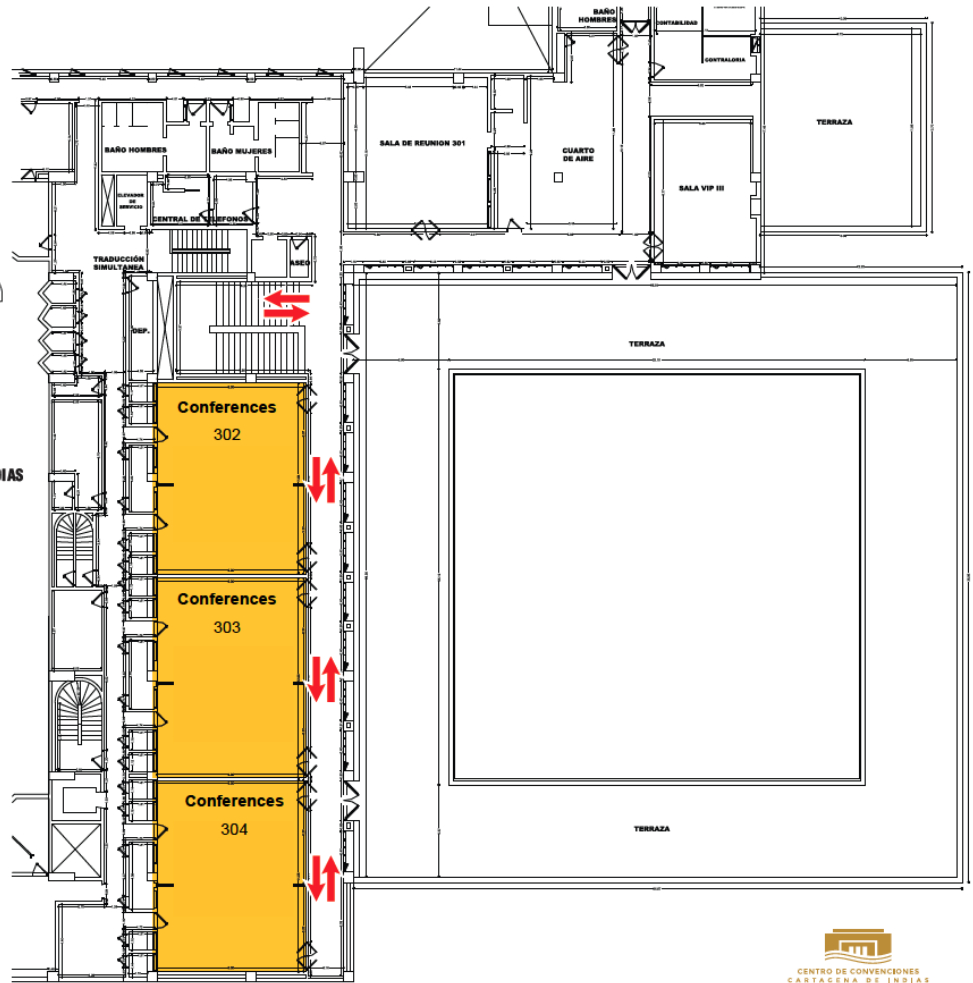
CENTRO DE CONVENCIONES - CARTAGENA DE INDIAS

Second floor ATBC2022





ATBC Global Meeting
 JULIO 10 AL 14 DE 2022
 CENTRO DE CONVENCIONES - CARTAGENA DE INDIAS
 Third floor **ATBC2022**



CENTRO DE CONVENCIONES
 CARTAGENA DE INDIAS

General Information

Onsite Registration Counter

Pórtico de Registro. Located on the right of the main entrance of the Cartagena Convention Center.

Meeting Venue Opening Hours

Sunday, July 10th 13:00 – 22:00

Monday, July 11th 7:30 – 20:00

Tuesday, July 12th 7:30 – 20:00

Wednesday, July 13th 7:30 – 20:00

Thursday, July 14th 7:30 – 20:00

Welcome Cocktail

Sunday, July 10th, Terrazas del Claustro 20:00 – 22:00

Banquet

Thursday, July 14th 19:30 – 21:30. Explanada de San Francisco. Paying event.

Closing Party

Thursday, July 14th – Friday, July 15th 21:30 – 3:00. Explanada de San Francisco. Free and open to all registered attendees.

Coffee Breaks and Lunches

Coffee breaks are from 10:00 to 10:30 and from 16:00 to 16:30, from the 11th to the 14th

Brownbag lunches are from 12:30 to 14:00. Lunch is offered by ATBC2022 to all attendees. Lunches will be served in the Claustro de las Ánimas, on the first floor.

Speaker Preview Desk

All speakers must upload their presentation a day before their presentation at the Speaker Preview Desk located in the “Hall de Exposiciones”, on the second floor.

Posters

Posters sessions are from Monday the 11th to Wednesday the 13th. Poster boards are located in the Claustro de las Ánimas.

Mounting is at 7:30 AM and dismantling is at 18:30 on the same day. You are expected to be at your poster between 17:30 and 18:30. Posters are exhibited for one day.

COVID testing

COVID testing will be located on the Hall the Exposiciones on the second floor of the meeting venue. Fees apply.

Emergency Numbers

An ambulance service will be always available at the meeting venue. Other emergency numbers are:

Police 112

Risk Management 125

Fire Department 119

Red Cross 132/605-662-5388

Liability

The Organizing Committee will not assume any responsibility for accidents, losses, or damages, as well as delays or modifications of the conference program.

Opening Keynote

Natural and Cultural History of the Colombian Caribbean Region

Keynote

Sunday, July 10th (after the welcoming ceremony) Getsemaní

Speaker: Santiago Madriñán

Speaker bio

B.Sc.-Biology, Universidad de los Andes 1987; Ph.D. Systematic Botany, Harvard University 1996
Full Professor, Universidad de los Andes 1997–present; Director Jardín Botánico de Cartagena 2015–present
Corresponding Member, Academia de Ciencias Exactas, Físicas y Naturales de Colombia 2014–present
Research Associate Royal Botanic Gardens Kew 2002; New York Botanical Garden 2007; International Tropical Biology Center, Florida International University, 2015
Fields of interest: Neotropical plant evolution, Páramos and Seasonally Dry Tropical Forests

Publications:

- 5 books, including “Nikolaus Joseph Jacquin's American Plants: Botanical Expedition to the Caribbean (1754–1759) and the Publication of the Selectarum Stirpium Americanarum Historia” Brill, Leiden 2013” and “Flora Neotropica Monograph-Rhodostemonodaphne (Lauraceae)” New York Botanical Garden 2004
 - 7 book chapters
 - 56 scientific papers in: floristics, anatomy, morphology, systematics and evolution of neotropical plants; evolution on the biota of the Páramos; Seasonally Dry Tropical Forest conservation; systematics of the Lauraceae; DNA barcoding; ethnobotany and economic botany; history of botany.
- Microchilus madrinanii* Ormerod, named after a specimen collected in Sierra Nevada de Santa Marta, July 13, 1989.

Professional links:

- <http://botanica.uniandes.edu.co> <http://jbgp.org.co>
 - <https://uniandes.academia.edu/SantiagoMadriñán>
 - <https://www.researchgate.net/profile/SantiagoMadrinan>
 - <http://scholar.google.com/citations?hl=en&user=K9Wwx68AAAAJ>
 - <http://www.researcherid.com/rid/A-1149-2010>
 - <https://orcid.org/0000-0002-0807-6523>
 - <https://scienti.minciencias.gov.co/cvlac/visualizador/generarCurriculoCv.do?codrh=0000099651>
 - <https://scienti.minciencias.gov.co/gruplac/jsp/visualiza/visualizagr.jsp?nro=00000000001099>
-

Program at a Glance

TIME	ROOM	MONDAY July 11th		TUESDAY July 12th	
		Session	Page	Session	Page
8:00 -9:00	Getsemani	[PS] Keynote: The ecology, evolution and conservation potential of anti-herbivore defenses in rainforest trees (Phyllis Coley)	3	[PS] Keynote: Climate and Environmental Crisis: How to Get Out of the Crossroad? (Germán Poveda)	33
9:00-10:00	Arsenal	[OS] Seed dispersal, seed banks & recruitment I	17	[OS] Seed dispersal, seed banks & recruitment III	47
	Barahona 1	[OS] Ecosystem structure and function I	17	[OS] Ecosystem structure and function III	47
	Barahona 2	[OS] Agriculture, Forestry and sustainable alternatives I	18	[OS] Agriculture, Forestry and sustainable alternatives III	47
	Barahona 3	[OS] Conservation Planning, Management, Practice: Plants & Ecosystems I	18	[OS] Conservation Planning, Management, Practice: Plants & Ecosystems III	48
	Barahona 4	[OS] Restoration Ecology: Plants, Animals & Ecosystems I	18	[OS] Climate change: impacts and solutions II	48
	Getsemani	[OS] Socio-ecological Systems, Resilience, Sustainable Development I	19	-	-
	Room 201	[OS] Animal functional ecology	19	[OS] Soil ecology I	48
	Room 302	-	-	[OS] Eco-physiology I	49
	Room 303	[OS] Host - Parasites/Pathogens interactions I	19	[OS] Community assembly III	49
	Room 304	[OS] Community assembly I	20	[OS] Invasive species	49
Secretaría	-	-	[OS] Restoration Ecology: Plants, Animals & Ecosystems III	50	
10:00-10:30	--	Coffee Break		Coffee Break	
10:30- 12:30	Arsenal	[SYMP] Plant ecophysiology in a changing world: refining ecological theory (Part 1/2)	5	[SYMP] Insular habitat fragmentation induced by hydroelectric dams: an emerging threat to biodiversity (Part 1/2)	35
	Barahona 1	[SYMP] Tropical forest responses to large-scale experiment nutrient additions across scales	6	[SYMP] Status of biodiversity in the Amazon	36
	Barahona 2	[SYMP] Seeing Through the Smoke – fire as a catalyst of Amazonian tipping points (Part 1/2)	6	[SYMP] Overcoming implicit bias in the tropical science community for better conservation research and practice (Part 1/2)	36
	Barahona 3	[SYMP] Secondary forest succession; theory, synthesis and application (Part 1/2)	7	[SYMP] Linking field-oriented ecology and ecologists with land surface models and modelers (Part 1/2)	37
	Barahona 4	[SYMP] Biological diversification in the Andean-Amazon region (Part 1/2)	7	[SYMP] Tropical forest response to temperature: a pantropical synthesis of elevation gradients, and leaf thermoregulation studies (Part 1/2)	37
	Getsemani	[SYMP] Analysing the effects of armed conflict on forest cover, land-use and biodiversity conservation in Colombia (Part 1/2)	8	[SYMP] The socio-ecological dynamics of tropical silvopastoral systems (Part 1/2)	38
	Room 201	[SYMP] Empowerment of IPLCs and Biocultural approaches to wildlife management and conservation: examples from Guyana	8	[SYMP] The High Frontier revealed: Arboreal camera trapping's potential to unlock the canopy's mysteries	38
	Room 302	[SYMP] Forest restoration in Colombia to benefit biodiversity and people: who, how and where?	9	[SYMP] The other side of drought: Why shallow water-table forests may be resilient to climate change-linked-droughts	39
	Room 303	[SYMP] Learning together: opportunities and challenges of local communities, scientists and decision makers in conservation education	9	[SYMP] Communal territory management and its implications in the conservation of biodiversity in the Andes	39
	Room 304	[SYMP] The Wildmeat and Health nexus: use and trade in times of COVID 19	10	[SYMP] Tropical forest restoration: Role of soil biota-root symbioses (mycorrhizae and N-fixing bacteria)	40
Secretaría	[SYMP] From traits to ecosystems: remote sensing of tropical forest structure and function under environmental change (Part 1/2)	10	[SYMP] Plant ecophysiology in a changing world: applications for forest management and restoration ecology	40	
12:30 - 14:00		Lunch		Lunch	
	Barahona 1	Mentoring Circle	29	-	-
	Secretaría	-	---	Early Career Scientists Mixer ATBC	59
	Room 302	-	---	Making science in tropical biology and conservation more inclusive and accessible	59
14:00-16:00	Arsenal	[SYMP] Plant ecophysiology in a changing world: refining ecological theory (Part 2/2)	11	[SYMP] Insular habitat fragmentation induced by hydroelectric dams: an emerging threat to biodiversity (Part 2/2)	41
	Barahona 1	[SYMP] Plant-Insect interactions in the Anthropocene: patterns, mechanisms and challenges in the Neotropics	11	[SYMP] Large-scale tropical biodiversity change: measurement, implications, and spatial scaling	41
	Barahona 2	[SYMP] Seeing Through the Smoke – fire as a catalyst of Amazonian tipping points (Part 2/2)	12	[SYMP] Overcoming implicit bias in the tropical science community for better conservation research and practice (Part 2/2)	42
	Barahona 3	[SYMP] Secondary forest succession; theory, synthesis and application (Part 2/2)	12	[SYMP] Linking field-oriented ecology and ecologists with land surface models and modelers (Part 2/2)	42
	Barahona 4	[SYMP] Biological diversification in the Andean-Amazon region (Part 2/2)	13	[SYMP] Tropical forest response to temperature: a pantropical synthesis of elevation gradients, and leaf thermoregulation studies (Part 2/2)	42
	Getsemani	[SYMP] Analysing the effects of armed conflict on forest cover, land-use and biodiversity conservation in Colombia (Part 2/2)	13	[SYMP] The socio-ecological dynamics of tropical silvopastoral systems (Part 2/2)	43
	Room 201	[SYMP] Tropical South American Peatlands: distribution, impacts of disturbance and knowledge gaps	13	[SYMP] Conserving the world's macroflora - from tree Red List assessments to tree conservation in action	43
	Room 302	[SYMP] Lesser-known Avian Migration Systems in South America	14	[SYMP] Tropical montane ecosystems: biodiversity, carbon and climate change	44
	Room 303	[SYMP] Noah's Arcs of the Anthropocene: the role of Botanic Gardens in Caribbean plant conservation	14	[SYMP] Patterns and mechanisms of diversity and forest change in the Andes	44
	Room 304	[SYMP] Vascular epiphytes: current knowledge and future challenges	15	[SYMP] Addressing the drivers of resilience: Understanding functional biodiversity and underlying processes that determine ecosystem health	45
Secretaría	[SYMP] From traits to ecosystems: remote sensing of tropical forest structure and function under environmental change (Part 2/2)	15	[SYMP] Sustainable Land-Use Systems to foster simultaneously climate change mitigation, forest conservation, and Colombian peacebuilding goals	45	
16:00- 16:30	--	Coffee Break		Coffee Break	
16:30-17:30	Arsenal	[OS] Seed dispersal, seed banks & recruitment II	21		
	Barahona 1	[OS] Ecosystem structure and function II	21	[OS] Ecosystem structure and function IV	51
	Barahona 2	[OS] Agriculture, Forestry and sustainable alternatives II	21		
	Barahona 3	[OS] Conservation Planning, Management, Practice: Plants & Ecosystems II	22	[OS] Conservation Planning, Management, Practice: Plants & Ecosystems IV	51
	Barahona 4	[OS] Climate change: impacts and solutions I	22	[OS] Climate change: impacts and solutions III	51
	Getsemani	[OS] Socio-ecological Systems, Resilience, Sustainable Development II	22	[OS] Socio-ecological Systems, Resilience, Sustainable Development III	52
	Room 201	[OS] Urban ecosystems	23	[OS] Soil ecology II	52
	Room 302	[OS] Ecosystem services/disservices	23	[OS] Eco-physiology II	52
	Room 303	[OS] Host and Parasites/Pathogens interactions II	23	[OS] Community assembly IV	53
	Room 304	[OS] Community assembly II	23	[OS] Restoration Ecology: Plants, Animals & Ecosystems IV	53
Secretaría	[OS] Restoration Ecology: Plants, Animals & Ecosystems II	23	[OS] Restoration Ecology: Plants, Animals & Ecosystems V	53	
17:30 - 18:30	Claustro de la Ánimas	POSTERS	25-28	POSTERS	55-58
18:30-19:30	Arsenal	[SE] More than Biological Collections: The Importance of Botanic Gardens, Herbaria, Museums, and Zoos for the Conservation of Tropical Biodiversity	29	[SE] Come learn about the Cartagena Declaration and give us your feedback!	60
	Getsemani			[SE] Christian Ziegler: photographic exhibition	59
	Room 201	[SE] Neotropical Chapter Social Mixer	30	-	---
	Secretaría	[SE] Progressing towards the conservation of the great diversity of birds life in Colombia: Developing the National Bird Conservation Strategy 2021-2030	30		
	Other locations			[SE] XPRIZE Happy Hour (MIRADOR GASTROBAR)	59

[PS]= Plenary Session

[SYMP]= Symposium

[OS]=Oral Session

[SE]= Social Event

WEDNESDAY July 13th		THURSDAY July 14th		ROOM	TIME
Session	Page	Session	Page		
[PS] Keynote: Janzen-Connell beyond 50: Tropical plant-enemy interactions in a changing world (Liza Comita)	63	[PS] Keynote: Is there really such a thing as TROPICAL Biology? (Emilio Bruna)	89	Getsemani	8:00 -9:00
[OS] Defaunation/Refaunation I	69	[OS] Communities: Spatio-temporal Patterns and Environmental Gradients I	95	Arsenal	9:00-10:00
[OS] Agriculture, Forestry and sustainable alternatives IV	69	[OS] Restoration Ecology: Plants, Animals & Ecosystems VIII	95	Barahona 1	
[OS] Ecosystem structure and function V	70	—	—	Barahona 2	
[OS] Habitat structure, fragmentation, connectivity I	70	[OS] Habitat structure, fragmentation, connectivity III	96	Barahona 3	
[OS] Conservation Planning, Management, Practice: Plants & Ecosystems V	70	[OS] Conservation Planning, Management, Practice: Plants & Ecosystems VIII	96	Barahona 4	
[OS] Socio-ecological Systems, Resilience, Sustainable Development IV	71	—	—	Getsemani	
[OS] Soil ecology III	71	[OS] Urban ecology: animals	96	Room 201	
—	—	[OS] Species interactions II	97	Room 302	
[OS] Community assembly V	71	[OS] Population Dynamics and Regulation II	97	Room 303	
[OS] Restoration Ecology: Plants, Animals & Ecosystems VI	72	[OS] Threats on Biodiversity, Species Conservation Status I	97	Room 304	
[OS] Climate change: impacts and solutions IV	72	[OS] Monitoring biodiversity I	98	Secretaría	
Coffee Break		Coffee Break		—	10:00-10:30
[SYMP] Conservation of Oak-Dominated Ecosystems in the Tropics: Opportunities and Challenges	65	[OS] Communities: Spatio-temporal Patterns and Environmental Gradients II	99	Arsenal	10:30- 12:30
[OS] Agriculture, Forestry and sustainable alternatives V	73	[SYMP] Before and-after tropical forest restoration across different landscapes	91	Barahona 1	
[SYMP] Emerging approaches for biodiversity monitoring in tropical environments	66	[SYMP] The role of biotic interactions in shaping tropical forest diversity	92	Barahona 2	
[OS] Functional Ecology: From Trails to Ecosystems I	73	[OS] Conservation Planning, Management, Practice: animal I	99	Barahona 3	
[OS] Conservation Planning, Management, Practice: Plants & Ecosystems VI	74	[SYMP] The role of functional traits in shaping species coexistence at local and landscape scales.	92	Barahona 4	
[OS] Socio-ecological Systems, Resilience, Sustainable Development V	74	[OS] Socio-ecological Systems, Resilience, Sustainable Development VII	100	Getsemani	
—	—	—	—	Room 201	
[SYMP] Emerging uses of large-scale remote sensing in tropical forest monitoring	66	[OS] Species interactions III	100	Room 302	
[SYMP] Long-term climate effects on interannual variation in tropical forest reproduction: a global perspective.	67	[OS] Population Dynamics and Regulation: Fauna I	101	Room 303	
[SYMP] Integrating seed dispersal and forest restoration; from animal movement to species interactions	67	[OS] Threats on Biodiversity, Species Conservation Status II	101	Room 304	
[OS] Defaunation/Refaunation II	75	[SYMP] Reconnecting the forest canopy: Lessons from artificial canopy bridge studies in various geographies and habitats	93	Secretaría	
Lunch		Lunch		—	12:30 - 14:00
—	---	—	---	Barahona 1	
—	---	Happy birthday, BCI! Help STRI plan upcoming Centennial celebrations	107	Secretaría	
—	---	—	---	Room 302	
[OS] Communities: Disturbance and Recovery	76	[OS] Communities: Spatio-temporal Patterns and Environmental Gradients III	102	Arsenal	14:00-16:00
[OS] Agriculture, Forestry and sustainable alternatives VI	76	[OS] Restoration Ecology: Plants, Animals & Ecosystems IX	102	Barahona 1	
[OS] Monitoring biodiversity: molecular techniques	77	[OS] Functional Ecology: From Traits to Ecosystems III	103	Barahona 2	
[OS] Functional Ecology: From Trails to Ecosystems II	77	[OS] Conservation Planning, Management, Practice: animal II	103	Barahona 3	
[OS] Conservation Planning, Management, Practice: Plants & Ecosystems VII	78	[SYMP] XPRIZE Rainforest: Revolutionizing Tropical Ecology and Conservation with Technological Innovations	93	Barahona 4	
[OS] Socio-ecological Systems, Resilience, Sustainable Development VI	78	—	—	Getsemani	
[OS] Population Dynamics and Regulation I	79	[OS] Habitat structure, fragmentation, connectivity: fauna	104	Room 201	
[OS] Species interactions I	79	—	—	Room 302	
[OS] Habitat structure, fragmentation, connectivity II	80	[OS] Population Dynamics and Regulation: Fauna II (14:00-15:00*)	104	Room 303	
[OS] Restoration Ecology: Plants, Animals & Ecosystems VII	80	[OS] Threats on Biodiversity, Species Conservation Status III (14:00-15:00*)	104	Room 304	
[OS] Climate change: impacts and solutions V	81	[OS] Monitoring biodiversity II	105	Secretaría	
Coffee Break		Coffee Break		—	16:00- 16:30
—	—	—	---	Arsenal	16:30-17:30
—	—	—	---	Barahona 1	
—	—	—	---	Barahona 2	
—	—	—	---	Barahona 3	
—	—	—	---	Barahona 4	
GETSEMANI [PS] Debate	63	[PS] Presidential Address: Tropical Biology in the age of parachutes & helicopters: 30 years of observations from Rwanda and the Albertine Rift (Beth Kaplin)	90	Getsemani	
—	—	—	---	Room 201	
—	—	—	---	Room 302	
—	—	—	---	Room 303	17:30 - 18:30
—	—	—	---	Room 304	
—	—	—	---	Secretaría	
POSTERS	83-86	[PS] Closing Ceremony (17:30-19:00*)	---	Claustro de la Ánimas	
—	---	—	---	Arsenal	18:30-19:30
[PS] ATBC Townhall	64	—	---	Getsemani	
—	---	—	---	Room 201	
—	---	—	---	Secretaría	
—	---	—	---	Other locations	

[PS]= Plenary Session

[SYMP]= Symposium

[OS]=Oral Session

[SE]= Social Event

Special Sessions

Welcome Ceremony

Sunday, July 10th - 17:00 hrs
Room Getsemaní

Welcome Cocktail

Sunday, July 10th - 19:00 hrs
Terrazas del Claustro

Closing Ceremony

Thursday, July 14th - 16:30 hrs
Room Getsemaní

Banquet

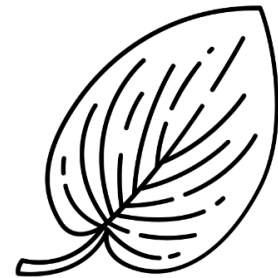
Thursday, July 14th - 19:30 hrs
Explanada de San Francisco

Closing Party

Thursday, July 14th - 21:30 hrs
Explanada de San Francisco

**Monday
July 11**

Plenary Sessions



The ecology, evolution and conservation potential of anti-herbivore defenses in rainforest trees

Keynote

8:00 hrs, Getsemaní

Speaker: Phyllis Coley

Speaker bio

I have worked in New and Old World tropical rainforests since 1976 and have been a professor at the University of Utah since 1982. My research has documented patterns of the benefits, constraints and costs of plant defenses, which led to the Resource Availability Theory. More recently, using untargeted metabolomics, we have demonstrated that the local diversity of trees depends on divergence in chemical defenses from neighbors (Janzen-Connell) at the scale of meters as well as kilometers. Selection by herbivores has also caused rapid divergence in defenses among close relatives. With my spouse, the late Dr. Thomas Kursar, we parlayed this basic science into a highly productive applied project in Panama linking discovery of new pharmaceuticals with education and conservation. I have received the Utah Governor's Medal of Science and am a Fellow of the Ecological Society of America and the American Academy of Arts and Sciences. Last year I received the wonderful honor of becoming an ATBC Honorary Fellow. And I have had the pleasure and responsibility of mentoring >200 students from North and South America who I know will continue to shape science and conservation in the tropics.

Symposia



-10:30 to 12:30 hrs-

Plant ecophysiology in a changing world: refining ecological theory (Part 1/2) (S-9)

Room: Arsenal

Time	Presentation	
10:30	Introduction	
10:45	Integrating ecophysiology and archeology to reconstruct diets of ancient civilizations during drought Louis Santiago* and Scott Fedick	609 ☺
11:00	Inter- and intra-specific variation among tree populations in their vulnerability to drought across a rainfall gradient in Puerto Rico Chris Smith-Martin*, Bob Muscarella and Maria Uriarte	116 ☺
11:15	Drought response traits in tropical deciduous woody species: Opposite relation of turgor loss point to rainfall than in evergreen species Bettina Engelbrecht*, Eun-Young Jung, Rainer Wirth, Marcelo Tabarelli and Inara Leal	455 ☺
11:30	Relationships between anatomy and physiology in tropical dry forest species: different traits to understand drought responses in trees Beatriz Salgado-Negret*, María Cuervo, Fabián Garzón Ramos, Roy Gonzalez-M., Camila Pizano, Jennifer Powers, Laura Salinas and German Vargas G.	217 ☺
11:45	Heat tolerance on two extreme life stages of the Zingiberales community of a tropical lowland wet forest Georgia Hernández*, Raquel Castro, Alejandra Perez-Enriquez and Carlos Garcia-Robledo	320 ☺
12:00	Divergence of hydraulic traits among tropical forest trees across topographic and vertical environment gradients in Borneo Paulo Bittencourt*, David Bartholomew, Lindsay Flynn-Banin, Mohd. Aminur Faiz Bin Suis, Reuben Nilus, David Burslem and Lucy Rowland	210 🖥
12:15	Warming and drought lead to shifts in the functional composition of tropical forests; a millennial-scale analysis Masha van der Sande*	746 🖥

Tropical forest responses to large-scale experiment nutrient additions across scales (S-6)

Room: Barahona 1

Time	Presentation	
10:30	Ecological responses to 12 years of fertilization in a lowland wet forest in Costa Rica Andrea Vincent*, David Matthey-Trigueros, Cristófer Coto-López, Ashley Wojciechowski, Meghan Midgley, Carlos Sandí Chinchilla, Gerardo Avalos, Richard Condit and Silvia Alvarez-Clare	707 ☺
10:45	Nitrogen and potassium regulate ecosystem net primary production in a Ugandan tropical forest Oliver van Straaten* and Raphael Manu	845 ☞
11:00	Changes in tree functional composition and diameter growth as a response to long-term nutrient addition in the Ecuadorian Andes (NUMEX) Juergen Homeier*, Laura Wuerzberg, Thilo Reng and Selene Báez	619 ☞
11:15	Differential nutrient limitation of early growth in N-fixing Legumes and non-Legumes in tropical dry forest Viviana Londoño-Lemos*, Bonnie Waring, Daniel Pérez-Aviles and Jennifer Powers	476 ☺
11:30	Phosphorus additions increase microbial phosphorus accumulation and carbon turnover in tropical soils in French Guiana Lucia Fuchslueger*, Christian Ranits, Laynara Lugli, Pere Roc Fernandez, Helena Vallicrosa, Leandro Van Langenhove, Lore Verryckt, Irene Ramirez-Rojas, Laëtitia Brechet, Elodie Courtois, Clément Stahl, Dolores Asensio, Joan Llusia, Alberto Canarini, Victoria Martin, Erik Verbruggen, Josep Peñuelas, Andreas Richter and Ivan Janssens	781 ☞
11:45	Experimental evidence for nutrient limitation on autotrophic and heterotrophic respiration in a Central Amazon Forest Hellen Fernanda Cunha*, Kelly Andersen, Flávia Santana, Laynara Lugli, Sabrina Garcia, Izabela Aleixo, Jéssica Schmeisk Rosa, Rafael Assis, Raffaello di Ponzio, Gyovanni Ribeiro, Anna Carolina Moraes, Lara Siebert, Bruno Portela, Lina Mercado, Iain Hartley and Carlos Quesada	883 ☞
12:00	Canopy treelets are more sensible to nutrient addition than understory specialists species in the understory of a tropical heath forest. Giacomo Sellan*, Rolando Robert, Noreen Majalap, Jill Thompson and Francis Brearley	785 ☞
12:15	Discussion/Conclusions	

Seeing Through the Smoke – fire as a catalyst of Amazonian tipping points (Part 1/2) (S-14)

Room: Barahona 2

Time	Presentation	
10:30	Introduction	
10:45	Why research needs to understand the complex causes of Amazonia's present-day fire crisis. Jos Barlow*	748 ☺
11:00	Ecological Insights from a 12-year Burn Experiment in a Transitional Amazonian Forest Paulo Brando*, Divino Vicente Silvério, Susan Trumbore, Leonardo Maracahipes-Santos, Leandro Maracahipes, Marcia Macedo, Maria del Rosario Uribe and Lucas Paolucci	491 ☺
11:15	Assessing functional shifts in human-modified Amazonian forests Erika Berenguer*, Jos Barlow, Yadvinder Malhi and Joice Ferreira	816 ☺
11:30	A novel approach for assessing the long-term CO₂ balance of burned Amazonian Forests Camila Silva*, Aline Lopes, Wallace Da Silva, Ane Alencar, Jos Barlow, Luiz Aragão, Erika Berenguer, Paulo Brando, Paulo Graça, Julia Shimbo, Edriano Souza and Bárbara Zimbres	647 ☺
11:45	The effects of fragmentation on fire in the Amazonia biome Thais Rosan*, Stephen Sitch, Lina Mercado, Viola Heinrich, Celso Henrique Leite Silva Junior, Pierre Friedlingstein and Luiz Aragão	731 ☺
12:00	Unravelling the complexity of Amazonian tipping points Bernardo Flores* and Marina Hirota	765 ☺
12:15	Amazon tipping points: an Earth System Modelling perspective Stephen Sitch*, Peter Cox, Dominic Fawcett, Lucy Rowland, Thais Rosan, Chantelle Burton, Paul Ritchie, Alexander Cheesman, Lina Mercado, Cleiton Eller, Flossie Brown and Isobel Parry	174 ☺

Secondary forest succession; theory, synthesis and application (Part 1/2) (S-25)

Room: Barahona 3

Time	Presentation	
10:30	Introduction	
10:45	A conceptual framework of ecological succession Michiel van Breugel*, Frans Bongers and Natalia Norden	195 ☺
11:00	Tropical forest recovery on abandoned lands; underlying drivers, and implications for restoration Lourens Poorter*, Dylan Craven, Catarina Jakovac, Masha van der Sande, Bruno Hérault and 2ndFOR Research Network	156 ☺
11:15	Successional patterns in tree size distribution along a rainfall gradient Hao Ran Lai*, Wirong Chanthorn and Michiel van Breugel	351 ☹
11:30	Both local and regional environmental conditions contribute to the natural restoration trajectories of West African forests Bienvenu Amani* and Anny N'guessan	61 ☹
11:45	Does one model fit all? Shifts in tree demographic strategies across succession in wet and dry Neotropical forests Nadja Rüger*, Markus Schorn, Stephan Kambach, Robin Chazdon, Caroline Farrior, Jorge Meave, Rodrigo Muñoz, Michiel van Breugel, Lucy Amissah, Frans Bongers, Bruno Hérault, Catarina Jakovac, Natalia Norden, Lourens Poorter, Masha van der Sande, Christian Wirth, Diego Delgado, Daisy Dent, Saara DeWalt, Juan Dupuy, Bryan Finegan, Jefferson Hall, Stephen Hubbell and Omar Lopez	14 ☺
12:00	Resprouting: The neglected recovery mechanism in tropical secondary forests Francisco Mora*, Horacio Paz, Luisa Pinzón, Radika Bhaskar, Jorge Meave and Edwin Lebrija-Trejos	445 ☺
12:15	Forest successional stage affects survival and growth of forest tree species differing in shade tolerance Marielos Peña-Claros*	614 ☺

Biological diversification in the Andean-Amazon region (Part 1/2) (S-37)

Room: Barahona 4

Time	Presentation	
10:30	Introduction	
10:45	Extinction at the end-Cretaceous and the origins of modern Neotropical rainforests. Monica Carvalho*	917 ☺
11:00	Topographic continuity and species dispersal across the Northern Andes Maria Sanin*, Agustin Cardona, Margot Paris, Michael Kessler, Ingrid Olivares, Sara Carvalho, and	44 ☺
11:15	Andean uplift, drainage basin connections through time, and the evolution of plants in rivers in northern South America Ana María Bedoya* and Richard Olmstead	155 ☺
11:30	Neotropical mountains and species diversification in Escallonia: when species limits matter Felipe Zapata*	551 ☺
11:45	Origins of amphibian diversity within and across the Eastern Cordillera of the Colombian Andes Andrew Crawford*, Angie Tovar-Ortiz, Aldemar Acevedo, Erika Rodriguez-Muñoz, Fernando Rojas-Runjaic and Camilo Montes	932 ☺
12:00	Revealing the origins of the most intensively studied tropical forest in the world: Barro Colorado Island, Panama Camila Martínez*, Diana Pérez Lara, David Avellaneda and Carlos Jaramillo	895 ☺
12:15	An integrative approach towards understanding the assembly and evolution of biotas: A case study from the Amazon Lucia Lohmann* and Joel Cracraft	866 ☺

Analysing the effects of armed conflict on forest cover, land-use and biodiversity conservation in Colombia (Part 1/2) (S-41)

Room: Getsemaní

Time	Presentation	
10:30	Introduction	
10:45	Forests, Coca, and Conflict: Grass Frontier Dynamics and Deforestation in the Amazon-Andes Liliana Davalos*, Eleonora Davalos, Jennifer Holmes, Clara Tucker and Dolors Armenteras	164 ☺
11:00	Mapping illicit land activities in the Colombian Andes Amazon region Paulo Murillo*	25 ☺
11:15	Conservation in an armed conflict setup. Finding paths to save Colombia's biodiversity Pablo Negret*	19 ☺
11:30	What Peace Means for Deforestation Augusto Castro-Nunez*	118 ☺
11:45	Beyond deforestation: refining the analysis of forest cover change processes after the peace agreements in Colombia David Katz Asprilla*, Amalia Nieto Mendez, Guido Briceño Castillo, Lilian Blanc and Marie-Gabrielle Piketty	134 ☺
12:00	Forest cover changes and public policy: A literature review for post-conflict Colombia Martha Vaengas Cubillos*, Augusto Castro-Nunez, Janelle Sylvester and Lisset Perez	452 ☺
12:15	Peace and the environment at the crossroads: elections in a conflict-troubled biodiversity hotspot Alejandro Salazar, Adriana Sanchez*, Jeffrey Dukes, Juan Salazar, Nicola Clerici, Eloisa Lasso, Santiago Sanchez-Pacheco, Angela Rendon, Juan Camilo Villegas, Carlos Sierra, German Poveda, Benjamin Quesada, Maria Uribe, Susana Rodriguez-Buritica, Paula Ungar, Paola Pulido-Santacruz, Natalia Morato and Paola Arias	28 ☺

Empowerment of IPLCs and Biocultural approaches to wildlife management and conservation: examples from Guyana (S-38)

Room: 201

Time	Presentation	
10:30	People not Poaching: Lesson learning from engaging communities in efforts to tackle illegal wildlife trade Olivia Wilson-Holt*	394 ☺
10:45	Community led turtle conservation along the Rupununi River, Guyana Rudolph Roberts*, Rudolph Roberts and Dereck David	507 ☺
11:00	North Rupununi District Development Board "Fisheries Management Implementation" Kevin Edwards*	693 ☺
11:15	Wapichan Wiizi wildlife management plan in South Rupununi, Guyana: community leadership in biocultural assessments and management planning Timothy Williams* and Kid James	186 ☺
11:30	Spatial tools for wildlife management in indigenous territories Andre Antunes*	648 ☹
11:45	A model building process for the participatory management of game in the Neotropics Nicole Ponta*, Hani El Bizri Rocha, Patrick Taillandier, Patrick O. Waeber, Julia Fa and Claude Garcia	567 ☹
12:00	Understanding mammal species response to hunting in Central Africa to develop sustainable hunting practices and indicators Davy Fonteyn*, Cédric Vermeulen, Hadrien Vanthomme, Adeline Fayolle, Philippe Vigneron, Rémi Malignat, Mexan Noel Yia Okanabene, Samuel Pereira Dias and Daniel Cornélis	255 ☺
12:15	Discussion/Conclusions	

Forest restoration in Colombia to benefit biodiversity and people: who, how and where? (S-35)

Room: 302

Time	Presentation	
10:30	Introduction	
10:45	Integrated economic and spatial modelling of scenarios of forest restoration in Colombia: Balancing biodiversity with production Eleanor Warren-Thomas*, Juliana Arbeleaz Gaviria, John Chavarro, Paola Isaacs, Julia Jones, David Leclère, Jose Ochoa-Quintero, Andres Peña, Natalia Peña, Isabel Rosa and Piero Vlsconti	94 ☺
11:00	Scenarios of forest restoration priorities in Colombia Marcelo Villa*, Paola Isaacs, Jose Ochoa-Quintero, Renato Crouzeilles, Marina Schmoeller, Sofia López-Cubillos and Brooke Williams	434 ☺
11:15	Monitoring forest restoration progress in Colombia: Creating a database of public and private projects Natalia Peña*, Mauricio Aguilar-Garavito, Paola Isaacs and Eleanor Warren-Thomas	645 ☺
11:30	An agenda for forest landscape restoration: a Colombian perspective Paola Isaacs*, Mauricio Aguilar-Garavito and Wilmer Marin	809 ☺
11:45	Planting 180 million trees in Colombia: meeting the challenge of a successful ecological restoration through regional involvement and strong networking Carolina Alcazar Caicedo*, Edwin Bello, Daniel García, Roy Gonzalez-M., Angelica Hernandez-Palma, Ronald Ayazo, Maria Torres, Carolina Castellanos-Castro, Laura Salinas, Leidy Celorio, Maria Teresa Becerra, Felipe García and Natalia Norden	992 ☺
12:00	Discussion/Conclusions	

Learning together: opportunities and challenges of local communities, scientists and decision makers in conservation education (S-26)

Room: 303

Time	Presentation	
10:30	Introduction	
10:45	Building knowledge together: towards an intercultural environmental education in the Cocha Cashu Biological Station, Manu National Park, Peru Yeissy Sarmiento Guevara*, Karla Ramirez Capetillo and Cesar Flores-Negrón	771 ☺
11:00	Engaging with indigenous Amazonian communities to promote coexistence with wildlife and sustainable harvest of natural resources Peter Gilson*	170 ☺
11:15	Environmental Action Civics: Connecting the Community to the Classroom Raizha Yurivilca Delgado*	111 ☹
11:30	The potential of citizen science to promote conservation in the Amazon: An analysis of the use of the ICTIO application Carolina Doria* and Danielle Pinto	323 ☺
11:45	Evaluating the impact of Environmental Education around Ranomafana National Park: opportunities and challenges Lovasoa Razafindravony*, Mariah Donohue, Ashley Maggy, Michael Docherty, Rehodo Lazasoa, Onjaniaina Rafanomezantsoa, Richard Ramarjaona, Nemese Randriarimanana, Odile Andrianirina Rafanambinantsoa, Hajanirina Randrianarivelo and Patricia Wright	203 ☺
12:00	Protected areas in Brazil: socioenvironmental and educational landscapes Yanina Micaela Sammarco Sammarco*	995 ☺
12:15	Discussion/Conclusions	

The Wildmeat and Health nexus: use and trade in times of COVID 19 (S-40)

Room: 304

Time	Presentation	
10:30	Introduction	
10:45	Impacts of COVID-19 on wildlife conservation Tacyana Oliveira* and Rômulo Alves	916
11:00	Effects of the COVID-19 pandemic on the use of wildlife as food in ethnic communities in South America Eric Cuesta Rios*, Nathalie van Vliet, Simon Quintero and Timothy Williams	468
11:15	Possible impacts of wildmeat trade bans on indigenous and local communities Robert Nasi and Julia Fa*	685
11:30	The vulnerability and resilience of wild meat value chains during the COVID-19 pandemic Francis Masse*	958
11:45	Human behavioural change and the wild meat trade after Ebola and COVID-19 in West Africa Stephan Funk*, Stephanie Ajong, Geoffrey Akani, Nio Amadi, Aida Cuni-Sanchez, Daniele Dendi, Massimiliano Di Vittorio, Edem Eniang, Fabio Petrozzi, Moses Sainge, Luca Luiselli and Julia Fa	517
12:00	Behaviours and Food Safety Practices that Shape Exposure to Zoonotic Diseases along the Wild Meat Trade Chain Nathalie van Vliet*	199
12:15	Discussion/Conclusions	

From traits to ecosystems: remote sensing of tropical forest structure and function under environmental change (Part 1/2) (S-42)

Room: Secretaría

Time	Presentation	
10:30	Introduction	
10:45	Architectural traits of a Costa Rican dry forest tree community derived from LiDAR scanning Adam Chmurzynski*	518
11:00	Pantropical plant functional traits dynamics mapping and predicting by integrating radar and field data on the Google Earth Engine platform Xiongjie Deng*	344
11:15	The variation of canopy functional traits across the tropical forest biome Jesus Aguirre Gutierrez*	57
11:30	Global mapping of the photosynthetic capacity of tropical forests using Sentinel-2A imagery Eleanor Thomson*	530
11:45	Integration of leaf spectral reflectance variability improves classification at different taxonomic levels. Natalia Quinteros*, Douglas Daly and Shawn Serbin	258
12:00	Assessing the link between spectral diversity and functional diversity Jesús Pinto-Ledezma*	495
12:15	Estimation of forest stand structure in Andean landscapes using 3D UAV remote sensing Sergio Bolívar-Santamaría* and Björn Reu	422

-14:00 to 16:00 hrs-

Plant ecophysiology in a changing world: refining ecological theory (Part 2/2) (S-9)

Room: Arsenal

Time	Presentation	
14:00	The importance of local habitat in shaping functional tropical tree species' strategies in the context of climate change. Marion Boisseaux*, Daniela Krebber, Sabrina Coste, Geraldine Derroire, Claire Fortuvel, Paul Mischler, Christine Scoffoni, Angela Casado garcia, Heidy Schimann and Clément Stahl	93 ☺
14:15	Ecosystem carbon fluxes are tree size-dependent in an Amazonian old-growth forest Norbert Kunert*	206 🖥
14:30	Resource acquisition strategy modulates seedling responses to experimentally-induced soil moisture manipulation in a tropical wet forest Jess Zimmerman*, David Matlaga, J. Aaron Hogan, Maria Uriarte and Bob Muscarella	294 ☺
14:45	Interspecific variability in physiological thresholds during dehydration reveals contrasting drought-response strategies and vulnerability to hydraulic failure in rainforest tree saplings Camille Ziegler*, Hervé Cochard, Sébastien Levionnois, Clément Stahl, Louis Foltzer, Bastien Gérard, Jean-Yves Goret, Patrick Heuret, Pascale Maillard, Damien Bonal and Sabrina Coste	254 🖥
15:00	Ecophysiological controls on water use dynamics in response to reducing throughfall and fog inputs in a tropical cloud forest Heidi Asbjornsen, Matthew Vadeboncoeur, Mauro Monteiro Juior*, Beisit Vilca, Darcy Galiano, Aline Horwath and Daniel Metcalfe	364 ☺
15:15	The flow below: What we can learn from seasonally variable root sap flow of three Panamanian tree species Mario Bretfeld*, Brent Ewers and Jefferson Hall	355 ☺
15:30	Discussion/Conclusions	

Plant-Insect interactions in the Anthropocene: patterns, mechanisms and challenges in the Neotropics (S-2)

Room: Barahona 1

Time	Presentation	
14:00	Introduction	
14:15	Above and belowground mutualistic interactions in <i>Inga edulis</i> are coordinated by carbon and nutrient demand Flávia Santana*, Rebeca Oliveira, Maria Alessandra Peixoto, Anselmo Nogueira, Laynara Lugli, Fabricio Baccaro, Luciana Bachega, Gabriela Neves, Sabrina Garcia, Izabela Aleixo, Nathielly Martins, Amanda Rayane Damasceno, Maria Pires, Anna Carolina Moraes, Pamella Leite, Vanessa Ferrer, Iokanam Sales Pereira, Alacimar Guedes, Bruno Portela, Iain Hartley, Lucia Fuchslueger, Oscar Valverde-Barrantes, David Lapola and Carlos Quesada	379 ☺
14:30	Synergistic effects of mutualistic ants on a Neotropical ant-plant: a long-term manipulative experiment revisiting the iconic <i>Cecropia-Azteca</i> system Ricardo Campos*, Inácio Gomes, Ricardo Solar, Nico Bluthgen, Heraldo Vasconcelos, Luíza Silva, Karla Oliveira and Marcelo Moreira	420 ☺
14:45	Ants control herbivory at the community level: large-scale ant suppression reveals a higher effect in forest than in grassland Tiago Fernandes*, Kate Parr, Ricardo Campos and Ricardo Solar	69 ☺
15:00	Not everything is what it seems to be: interactions among mistletoes, host plants and insects in a changing world Frederico Neves*	295 ☺
15:15	Revisiting herbivory and florivory in tropical plants: patterns and the importance of functional traits Tatiana Cornelissen*	241 ☺
15:30	Thermal mismatches between host plants and insect herbivores along elevational gradients: Implications for global warming Carlos Garcia-Robledo*, Georgia Hernández and Erin Kuprewicz	465 ☺
15:45	Discussion/Conclusions	

Seeing Through the Smoke – fire as a catalyst of Amazonian tipping points (Part 2/2) (S-14)

Room: Barahona 2

Time	Presentation	
14:00	Estimating fire emissions in the Amazon and Cerrado biomes of South America using remote sensing Dominic Fawcett*, Leo Ng, Amos Tai, Xiaoyu Yan, Thais Rosan, Celso Henrique Leite Silva Junior, Luiz Aragão and Stephen Sitch	750 ☺
14:15	Fire in the larder: understanding the impacts of invasive fires on biodiversity and forest food for traditional communities Rachel Carmenta* and Filipe Franca	696 ☺
14:30	Projections of Future Forest Degradation and CO₂ Emissions for the Brazilian Amazon ANA DE AGUIAR* and Talita Assis	870 🖨
14:45	The fate of Amazonian Forests in an increasingly fragmented fire-prone landscape Luiz Aragão*, Liana Anderson, Camila Silva, Thais Rosan, Laura Vedovato, Aline Lopes, Viola Heinrich, Celso Henrique Leite Silva Junior, Fabien Wagner, Erika Berenguer, Jos Barlow, Stephen Sitch and TREES Laboratory	882 ☺
15:00	Effect of drought, wildfire and cropland on soil moisture in southeastern Amazon Antônio Carlos Silva*, Divino Vicente Silvério, Leonardo Maracahipes-Santos, Leandro Maracahipes, Maria Uribe and Paulo Brando	853 ☺
15:15	Discussion/Conclusions	

Secondary forest succession; theory, synthesis and application (Part 2/2) (S-25)

Room: Barahona 3

Time	Presentation	
14:00	Before tree planting: integrating the nursery sector into restoration strategies Natalia Norden*, Carolina Alcazar Caicedo, Daniel Garcia-Villalobos and Laura Salinas	341 ☺
14:15	Restoring dry landscapes of Ghana: Key lessons for up scaling Shalom Addo-Danso*	192 ☺
14:30	Indicators to assess and monitor secondary forest recovery Catarina Jakovac*, André Giles, Milena Rosenfield, Juliana Schietti, Marciel Ferreira, Ima Vieira, Danilo Almeida, Pedro Brancalion, Lourens Poorter, Daniel Vieira, Luis Augusto Oliveira and Rita Mesquita	694 ☺
14:45	Estimating restoration benefits across regenerating tropical forest landscapes Pedro Brancalion*, Frans Bongers, Ricardo Rodrigues, Lourens Poorter, Paulo Molin and Marielos Peña-Claros	515 ☺
15:00	Discussion/Conclusions	

Biological diversification in the Andean-Amazon region (Part 2/2) (S-37)

Room: Barahona 4

Time	Presentation	
14:00	Relative importance of abiotic and biotic factors in driving local adaptation in the hyperdiverse rain-forest tree genus <i>Inga</i> Phyllis Coley and María-José Endara*	313 ☺
14:15	The Brazil nut family, Lecythidaceae, as a window into historical assembly, ecological dominance and conservation of Amazon tree communities. Christopher Dick*, Oscar Vargas, Tamara Milton, Drew Larson and Alberto Vicentini	812 ☺
14:30	Continuous colonisation of the Atlantic Coastal Rain Forests of South America from Amazonia James Nicholls, Oriane Loiseau, Kyle Dexter, Graham Stone, Phyllis Coley, Thomas Kursar, Flávia Garcia, Maristerra Lemes, Danilo Neves, María-José Endara, Haroldo Lima, Catherine Kidner and Toby Pennington*	487 🖥
14:45	Diversification in the Tropical Andes Biodiversity Hotspot: a Bird's Eye View, with Glimpses from Frogs and Fishes Daniel Cadena*	970 ☺
15:00	Discussion/Conclusions	

Analysing the effects of armed conflict on forest cover, land-use and biodiversity conservation in Colombia (Part 2/2) (S-41)

Room: Getsemaní

Time	Presentation	
14:00	What is resilient in a country chronically at war? An application of the adaptive cycle to understand the Socio-Ecological System Maria Pereira*, MARIE-GABRIELLE PIKETTY, François Bousquet and Daniel Castillo	139 ☺
14:15	Two decades of land change dynamics within and around the National Natural Park System of Colombia. A remote sensing approach Kristian Rubiano*, Nicola Clerici, Marius Bottin and Luigi Boschetti	760 🖥
14:30	Discussion/Conclusions	

Tropical South American Peatlands: distribution, impacts of disturbance and knowledge gaps (S-50)

Room: 201

Time	Presentation	
14:00	Introduction	
14:15	What do we know about Peruvian peatlands? Ecosystem services, threats, and regulatory framework Mariela Lopez*, Kristell Hergoualc'h, Timothy Baker, Rodney Chimner, Eurídice Honorio Coronado, Erik Lilleskov, Ana Maria Planas-Clarke, Oscar Angulo Nuñez, John del Aguila Pasquel, Dennis del Castillo Torres, Luis Freitas Alvarado, Beatriz Fuentealba Durand, Erick García Gonzalez, Eurídice Honorio Coronado, Hirose Kazuyo, Natalia Málaga, Mónica Maldonado Fonkén, Manuel Martín Brañas, Tony Mori Vargas, Katherine Roucoux and Faustino Vacalla Ochoa	988 ☺
14:30	Elevation and temperature are strong predictors of long-term carbon accumulation across tropical Andean mountain peatlands John Hribljan, Moira Hough*, Erik Lilleskov, Esteban Suarez, Katherine Heckman, Ana Maria Planas-Clarke and Rodney Chimner	484 ☺
14:45	Methane and carbon dioxide fluxes in drained and undrained tropical mountain peatlands in Colombia Luisa Merchán*, Angela Lafuente, Juan Benavides, Erik Lilleskov, Rodney Chimner and Daniek Roman	545 ☺

15:00	Using remote sensing to map degraded mountain peatlands with high climate mitigation potential in the wet Tropical Andes Juan Benavides*, Erik Lilleskov, Angela Lafuente, Nicolás Patrick, Laura Bourgeau-Chavez, Michael Battaglia and Rodney Chimner	558 ☺
15:15	Differing depth-mediated shifts in methanogen and methanotroph communities among tropical Andean mountain peatlands Angela Lafuente*, Louis Lamit, Rodney Chimner and Erik Lilleskov	625 ☺
15:30	Major CO₂ losses from degradation of <i>Mauritia flexuosa</i> peat swamp forests in western Amazonia Kristell Hergoualc'h*, Jeffrey , Nelda Dezzee, Julio Grandez, Mariela Lopez and Louis Verchot	74 ☺
15:45	Discussion/Conclusions	

Lesser-known Avian Migration Systems in South America (S-48)

Room: 302

Time	Presentation	
14:00	Introduction	
14:15	Surprises from the South: what we've learned about migration in South America from satellite tracking Lisa Davenport*, Paulo de Tarso Antas, Joao Campos-Silva, Bruna Costa, Torbjørn Haugeaasen, Luciano Naka, Natalia Ocampo-Peñuela, Renato Pinheiro and Carlos Peres	415 ☺
14:30	Avian migration studies in Barba Azul Nature Reserve, Bolivia: The flight of the the Blue-Throated Macaw Tjalle Boorsma* and Lisa Davenport	64 ☺
14:45	Why the Amazonian turtles are important to protect migratory waterbirds? Joao Campos-Silva*, Carlos Peres, Joseph Hawes, Mark Abrahams, Paulo Andrade and Lisa Davenport	421 ☺
15:00	Novel movement patterns documented in two species of Amazonian aquatic birds in the Rio Branco, northern Amazon Bruna Costa*, Lisa Davenport, Pedro Simões and Luciano Naka	506 📖
15:15	Orinoco Geese and conservation of habitats in Araguaia's Amazonia/Cerrado Ecotone Renato Pinheiro*, Paulo de Tarso Zuquim Antas, John Terborgh and Lisa Davenport	872 📖
15:30	Bird migration in lowland tropical South America, an overview Paulo de Tarso Antas* and Lisa Davenport	891 ☺
15:45	Discussion/Conclusions	

Noah's Arcs of the Anthropocene: the role of Botanic Gardens in Caribbean plant conservation (S-46)

Room: 303

Time	Presentation	
14:00	Introduction	
14:15	The Jardín Botánico Nacional, La Habana, Cuba and its role in conservation of Cuban botanical heritage Rosalina Berazaín*	138 ☺
14:30	Contrasting efforts in plant conservation in Hispaniola Betsaida Cabrera García*	140 ☺
14:45	The importance of indigenous species in the restoration project in Haiti William Cineá*	666 ☺
15:00	Half a century of Caribbean orchid research and exploration at Marie Selby Botanical Gardens Tatiana Arias*	302 ☺
15:15	Conservation of forgotten and endangered Caribbean plants through domestication for tropical landscaping Maria Contreras*	83 ☺

15:30	Decolonizing botanical sciences in the West Indies: Hispaniola case Yuley Encarnacion Pineyro*
15:45	Discussion/Conclusions

Vascular epiphytes: current knowledge and future challenges (S-13)

Room: 304

Time	Presentation	
14:00	Introduction	
14:15	"Epiphytes <i>sensu lato</i>" : Biological variation vs. terminological chaos Gerhard Zotz*	10 ☺
14:30	Vascular epiphyte life history responses to anthropogenic change: An Experimental Approach Catherine Cardelus* and Carrie Woods	701 ☺
14:45	Putting Vascular Epiphytes on the Traits Map Peter Hietz*	119 ☺
15:00	Vascular epiphyte diversity at the local scale: state-of-the-art and outlook Glenda Mendieta Leiva*, Christopher Blum, André de Gasper, Margoth Acuña , Thorsten Krömer, Derio Jiménez-López, Alex F. Mendes, Luis Neto, Sara Mortara, Adriano Quaresma, Edier Soto Medina, Luis Pillaca, Michael Vega, Marcio Werneck and Charles Zartman	865 ☺
15:15	Identification of large-scale vascular epiphyte biodiversity patterns Amanda Taylor*, Flavio Ramos, Holger Kreft, Michael Kessler and Jan Wolf	172 ☺
15:30	Identification of responses to anthropogenic disturbances and climate change on vascular epiphytes Ana Benavides*, Sven Batke, Helena Einzmann, Joao Elias, Edilia de la Rosa-Manzano, Alejandro Flores-Palacios, Valeria Guzmán-Jacob, Florian Werner, Maria Judith Carmona, Flavio Ramos, Daniel Zuleta, Thorsten Krömer and Glenda Mendieta Leiva	961 ☺
15:45	Discussion/Conclusions	

From traits to ecosystems: remote sensing of tropical forest structure and function under environmental change (Part 2/2) (S-42)

Room: Secretaría

Time	Presentation	
14:00	Data fusion to hindcast forest structural trajectories during secondary succession in tropical forests T. Trevor Caughlin* and Cristina Barber	628 ☺
14:15	Hydrological environments, climate, and plant traits structure large-scale Amazon forest drought response Shuli Chen*, Scott Stark, Antonio Nobre, Adriana Cuartas, Diogo Amore, Natalia Restrepo-Coupe, Marielle Smith, Hongseok Ko, Bruce Walker Nelson and Scott Saleska	807 ☺
14:30	Using GEDI tree-height data to understand the large-scale dynamics of tropical mountains mediated by landsliding Carla Restrepo*, Laura Ospina, Francisco Álvarez-Vargas and Ana Kilgore	875 ☺
14:45	Discussion/Conclusions	

Oral Sessions



-9:00 to 10:00 hrs-

Seed Dispersal, Seed Banks & Recruitment I

Room: Arsenal

Time	Presentation	
9:00	Sowing forests: a synthesis of seed dispersal and predation by agoutis and their influence on plant communities Pedro Mittelman*, Caroline Dracxler, Pollyanna Santos Coutinho and Alexandra Pires	23 ☺
9:15	Complementarity in the seed dispersal function of three South American primates Ariek Norford*, Nathaly Echeverry, Juliana Obregón and Pablo Stevenson	24 ☺
9:30	Understanding the relationship between dispersal and range size Adriana Alzate* and Renske Onstein	7 ☺

Ecosystem Structure and Function I

Room: Barahona 1

Time	Presentation	
9:00	Seasonal shifts in isoprenoid emission compositions from three hyperdominant tree species in central Amazonia Eliane Gomes-Alves*, Ty Taylor, Michelle Robin, Debora Oliveira, Juliana Schietti, Sergio Duvoisin Junior, Nora Zannoni, Jonathan Williams, Christoph Hartmann, José Francisco Gonçalves, Jochen Schöngart, Florian Wittmann and Maria Teresa Piedade	68 ☺
9:15	It's getting hot: Termite temperature sensitivity drives global wood decay Amy Zanne*	159 ☺
9:30	Quantifying spatial and temporal variation in canopy tree mortality and branchfalls on Barro Colorado Island, Panama, using drone photogrammetry KC Cushman, Raquel Araujo, Milton Garcia, Matteo Detto, Samuel Grubinger, Carlos Celes, Robinson Negron-Juarez, Jonathan Dandois and Helene Muller-Landau*	247 ☺
9:45	Quantifying and valuing the contribution of megaherbivores to tropical forest carbon cycling Fabio Berzaghi*, Stephen Blake and Francois Bretagnolle	35 ☺

Agriculture, Forestry and Sustainable Alternatives I

Room: Barahona 2

Time	Presentation	
9:00	Harvest simulations on <i>Chamaedorea linearis</i> and <i>C. pinnatifrons</i> to promote its conservation through use Carolina Isaza*, Paula Cepeda-Mahecha and Pedro Jiménez	66 ☺
9:15	Birds as fungal dispersers between coffee plantations and forests Elena Prado-Ragan*	461 ☺
9:30	Continuous forest at higher altitudes plays a key role in maintaining biodiversity across a mid-elevation coffee landscape in the western Andes of Colombia Maria Juliana Bedoya*, Lyn Branch, Harrison Jones and Kristen Malone	922 ☺
9:45	Biodiversity and human well-being in productive landscapes: The case of coffee agroecosystems in the central Colombian Andes Camila Parra-Guevara*, Orlando Acevedo-Charry and Neidy Clavijo	546 ☺

Conservation Planning, Management, Practice: Plants & Ecosystems I

Room: Barahona 3

Time	Presentation	
9:00	Cats, cattle, and conflict: using agent-based modeling to understand how pastoral management affects jaguar-cattle predation Siria Gámez* and Nyeema Harris	324 ☺
9:15	Participatory mapping as a tool for land management around protected area of the Abdoulaye Faunal Reserve (North of Mono River) Aboudoumisamilou Issifou*, Kombate Bimare, Folega Fousseni, Gabriel Hoinsoudé Segniagbeto, Komlan Batawila, Guillaume Koffivi K. Ketoh and Wouyo Atakpama	81 🖨
9:30	Indigenous Land and Protected Areas are key to moderate climate in the Cerrado and the Amazon Hellen Almada*, Marcia Macedo, Eddie Lenza, Leandro Maracahipes, Paulo Brando and Divino Vicente Silvério	817 ☺

Restoration Ecology: Plants, Animals & Ecosystems I

Room: Barahona 4

Time	Presentation	
9:00	Intraspecific variation along an elevational gradient alters seed scarification responses in a polymorphic Hawaiian tree species Anna Sugiyama*, James B. Friday, Christian Giardina and Douglass F. Jacobs	18 ☺
9:15	Monitoring recovery of tree diversity during tropical forest restoration: Lessons from long-term trajectories of natural regeneration Robin Chazdon*, Natalia Norden, Robert Colwell and Anne Chao	52 ☺
9:30	Ecological restoration in semi-arid Africa: comparing strategies and actions of the Great Green Wall initiative in Senegal and Burkina Faso Natalia Medina Serrano*, Doyle McKey, Martine Hossaert-McKey, Aliou Guissé and Priscilla Duboz	204 ☺
9:45	Natural regeneration in post-gold mining landscapes in the Madre de Dios river basin, Peru Varun Swamy*	453 ☺

Socio-ecological Systems, Resilience, Sustainable Development I

Room: Getsemaní

Time	Presentation	
9:00	Exploring the socioecological drivers of deforestation in Mexico: A Machine Learning approach Iván Ortiz-Rodríguez*	72 ☺
9:15	How do birds and people see an ancient agricultural landscape in the Peruvian high Andes? Liz Hurtado*	956 ☺
9:30	La gestión del riesgo de desastres como estrategia de conservación de ecosistemas. Caso de estudio Reserva La Romera. Daniela Márquez*, Juan Aguirre, Jenny Mancera Carmona and Edna Rodríguez	657 ☺
9:45	Reconciling policy instruments with drivers of deforestation and forest degradation: Empirical analysis of stakeholder perceptions in the tropics. Ruben Weber*, Richard Fischer, Melvin Lippe and Sven Günter	400 ☞

Animal Funcional Ecology

Room: 201

Time	Presentation	
9:00	Repeated evolution of unorthodox feeding styles drives a negative correlation between foot size and bill length in hummingbirds Robert Colwell*, Thiago Rangel, Karolina Fučíková, Diego Sustaita, Gregor Yanega and Alejandro Rico-Guevara	104 ☺
9:15	Deconstructing functional diversity to better conservation research and application using a case study of Colombian butterflies Emily Khazan*	761 ☺
9:30	Animal and plant functional diversity play a key role in the biogeochemical carbon cycle in the Amazon María Losada*, Antonio Martínez Cortizas, Jose Manuel V. Fragoso, Kirsten Silvius and Mar Sobral	720 ☞

Host - Parasites/Pathogens interactions I

Room: 303

Time	Presentation	
9:00	Disturbing trends: Does fragmentation influence pathogen prevalence and transmission in small mammal communities? Ansil B R*, Ashwin Viswanathan, Vivek Ramachandran, Avirup Sanyal and Uma Ramakrishnan	221 ☺
9:15	Distribution of Bats Reservoirs for Beta-Coronaviruses Norma Forero* and Timothée Poisot	361 ☺
9:30	Effects of landscape variation, population abundance, and host activity on the rate of Asian koel brood parasitism of Long-tailed shrike Dayna Levine*, George Gale, Rongrong Angkaew and Daphawan Khamcha	385 ☺
9:45	Rodent-ectoparasite interaction through anthropic disturbance gradients in a tropical forest region at Yucatan Peninsula in Mexico Daniela Rodríguez Avila*, Luis Avila Cabadilla, Mariana Alvarez Añorve, Gerardo Suzán, Julieta Benitez-Malvido, Enrique Reyes-Novelo, Daniel Sokani Sánchez Montes and Angel Herrera-Mares	695 ☺

Community Assembly I

Room: 304

Time	Presentation	
9:00	Species of Unusual Effect: The important things that run the world Kyle Harms*	65 ☺
9:15	Diversity and distance decay in terra-firme forests in the Chocó Biogeographic Region, one of the most unexplored areas in Colombia. Camilo Palacios Hurtado*	143 ☺
9:30	The contribution of environmental and dispersal filters on phylogenetic and taxonomic beta diversity patterns in Amazonian tree communities Juan Guevara-Andino*	151 ☺

-16:30 to 17:30 hrs-

Seed Dispersal, Seed Banks & Recruitment II

Room: Arsenal

Time	Presentation	
16:30	Effect of fruiting neighborhood on seed dispersal differs by frugivore functional group and spatial scale Kaushik Narasimhan*, Jordan Karubian and Lukew Browne	636 ☺
16:45	Investigate the effect of dispersal limitation and habitat association on intraspecific recruit-adult patterns in a mixed-dipterocarp tropical rainforest Shanika Jayasinghe*, Sisira Ediriweera, Thorsten Wiegand and Pushpakanthie wijekoon	198 ☞
17:00	Potential role of rodents in the secondary dispersal of an orphaned baobab species in Madagascar's tropical dry forests Tanjoniaina Rabarijaonina*, Sehen Andriantsaralaza, Nirintsoa Raharinomena, Onja Razanamamaro, Nasan-dratra Raoelinjanakolona, Finaritra Randimbiarison, Rindra Nantenaina, Stéphan Andriamiadana and Onja Razafindratsima	389 ☞

Ecosystem Structure and Function II

Room: Barahona 1

Time	Presentation	
16:30	Nutrient limitation of plant reproduction in a tropical moist forest Riley Fortier* and S Joseph Wright	100 ☺
16:45	The influence of basal area and wood density in carbon estimations from Lidar Edgar Cifuentes*	876 ☺
17:00	Biodiversity controls ecosystem functioning and associated services in a geomorphologic heterogeneous tropical forest in southwestern Costa Rica Florian Hofhansl*, Eduardo Chacón-Madrigal, Lucia Fuchslueger, Werner Huber, Anton Weissenhofer and Wolfgang Wanek	3 ☞
17:15	Amazon windthrows have regional characteristics associated with environmental and physical characteristics Robinson Negron-Juarez* and Daniel Marra	253 ☞

Agriculture, Forestry and Sustainable Alternatives II

Room: Barahona 2

Time	Presentation	
16:30	Improving pollination deficits of native cacao varieties from Peru for enhanced smallholder benefits Justine Vansynghel*, Evert Thomas, Carolina Ocampo-Ariza, Bea Maas, Carlos Ulloque-Samatelo, Teja Tschardt and Ingolf Steffan-Dewenter	411 ☞
16:45	Above-ground biomass storage potential in primary rain forests managed for production in Costa Rica Leslie Morrison*	714 ☞
17:00	Ecological and food importance of <i>Vitex doniana</i> Sweet (Verbenaceae) in southern Benin Barthelemy Aignon* and Serge ASSONGBA	712 ☺
17:15	Bees and wasps responses to soy cultivation in 43 agricultural landscapes across the Amazon-Cerrado transition Danielle Storck-Tonon, José Ferreira*, Dionei Silva and Monica Pereira	929 ☞

Conservation Planning, Management, Practice: Plants & Ecosystems II

Room: Barahona 3

Time	Presentation	
16:30	Community-sourced knowledge uses for improving biodiversity management in Madagascar's National Parks Lalatiana Randriamiharisoa*	46 ☺
16:45	Global Conservation Consortium for <i>Magnolia</i>: Establishment of a global network to conserve <i>Magnolia</i> biodiversity Jean Linsky*, Dan Crowley and Emily Coffey	112 ☺
17:00	Hyperdiversity in the Anthropocene. Tiputini: present and future of forests in remote Amazonia Gonzalo Rivas-Torres*, Bette Loiselle, John Blake, Diego Mosquera and Kelly Swing	115 ☺
17:15	Mapping biodiversity ignorance on the Great Escarpment of Angola and Namibia Fernanda Martins*, Javier Martinez Arribas, Thainá Lessa, Ricardo Correia, Ana Claudia Malhado, Ana Filipa Palmeirim, Fredrik Oxelfelt, Patrícia Guedes, Pedro Beja and Richard Ladle	117 ☺

Climate Change: Impacts and Solutions I

Room: Barahona 4

Time	Presentation	
16:30	Projecting climate change impacts on the butterflies of tropical Asia: overcoming data challenges for diverse insect communities Timothy Bonebrake*, Toby P. N. Tsang, Emily Jones, Catherine Hai, Xueying Wang, Shuang Xing, Richard Corlett and Patrick Roehrdanz	208 ☺
16:45	Glacier influence on bird assemblages in habitat islands of the high Bolivian Andes Tatiana Cardenas*, Naoki Kazuya, Quentin Struelens, Carlos Landivar, Maria Isabel Gomez, Rosa Isela Meneses, Sophie Cauvy-Fraunié, Fabien Anthelme and Olivier Dangles	284 ☺
17:00	Species Distribution Modelling for Limestone and Forest Langurs in Tropical Asia and Its Conservation Implications Truong Nguyen*, Minh Le, Ha Nguyen, Tilo Nadler, Dung Le, Hung Nguyen, Kien Luu, Pham Tam, Toan Nguyen, Duong Do, Ming Li, Christian Roos and Michael Hofreiter	181 ☺

Socio-ecological Systems, Resilience, Sustainable Development II

Room: Getsemaní

Time	Presentation	
16:30	Indigenous lands are better for biodiversity conservation than colonizer-managed agricultural lands: A case study from south-eastern Peru Shirley Serrano Rojas*, Andrew Whitworth, Ross Macleod, Ruthmery Pillco-Huarcaya, Lawrence Whittaker and Julio Paredes Garcia	608 ☺
16:45	Land organization and the effect of rural credit and land violence on deforestation in Brazil Patricia Ruggiero*, Paula Pereda and Alexander Pfaff	758 ☺
17:00	The burning Andes: fires in the Colombian paramos Laura Obando-Cabrera*, Stijn Hantson and Julian Díaz-Timoté	862 ☺
17:15	Storymaps: A virtual tour to promote biodiversity conservation in La Romera Reserve, Sabaneta – Antioquia, Colombia Kimberly Xiomara Góez Saucedo*, Anica Urrego, Laura Gaviria Dávila and Juan Aguirre Cardona	676 ☺

Urban Ecosystems

Room: 201

Time	Presentation	
16:30	The drivers of lightning enhancement over cities Juan Narvaez*	672 ☺
16:45	Variations in Human Perceptions, Attitudes, Biophilic Values and Interactions Towards Bats at three Urban-Rural Locations in a Neotropical city Pabla Lozano Ramírez*, Juan Amaya-Espinel, J. Nicolás Urbina-Cardona, Crystell Rosas-Cruz and Jairo Pérez-Torres	588 ☺
17:00	Contaminants play a key role in understanding ecosystem function in tropical urban estuaries Autumn Oczkowski*, Iveliss Capielo Cosme, Marirosa Molina, Alana Hanson, Morgan Schwartz, Evelyn Huertas and David Katz	95 ☺

Ecosystem Services/Disservices

Room: 302

Time	Presentation	
16:30	Quantifying ecosystem services and disservices derived from biodiversity in cacao agroforestry: Socio-ecological opportunities for smallholder farming Carolina Ocampo-Ariza*, Justine Vansynghel, Denise Bertleff, Bea Maas, Evert Thomas, Nils-Christian Schumacher, Ingolf Steffan-Dewenter and Carlos Ulloque-Samatelo	508 ☺
16:45	Water Related Ecosystem services modeling for Tropical Dry Forest in Colombia Gabriel-Alejandro Perilla*, Susana Rodríguez-Buritica and Yoanna Kraus	141 ☺

Host and Parasites/Pathogens interactions II

Room: 303

Time	Presentation	
16:30	Isolation and identification of fecal bacteria in <i>Aotus lemurinus</i> (Pijao, Quindío) Laura Becerra*, Sebastian Montilla and Andres Link	48 ☺
16:45	Functional and taxonomic relatedness of American palms drive host specificity patterns in parasitoid beetles Caroline Dracxler*	849 ☺
17:00	Ground beetle – fungus interaction networks in the tropics Gábor Pozsgai*	873 ☺

Community Assembly II

Room: 304

Time	Presentation	
16:30	Environmental filtering, not competition, drives forest specialist replacement by non-forest species in fragmented landscapes Marina Zanin*, Thomas Püttker, Mauricio Almeida-Gomes, Jayme Prevedello and Renata Pardini	220 ☺
16:45	Species differences in foliar secondary metabolites represent a fundamental niche dimension on Barro Colorado Island, Panama Brian Sedio*, Guillermo Peguero and S Joseph Wright	270 ☺
17:00	Edge effects on arboreal and terrestrial herpetofauna across vertical strata in a tropical dry forest Jesse Borden*	494 ☺

Restoration Ecology: Plants, Animals & Ecosystems II

Room: Secretaría

Time	Presentation	
16:30	Tree regeneration in active and passive cloud forest restoration: Functional groups and timber species Alma Trujillo*, Tarin Toledo Aceves and Fabiola Lopez	225 😊
16:45	Nucleation techniques to recovery a heavily impacted area in the Brazilian hotspot of Cerrado: what is the best technique? Yasmine Antonini*, Alessandra Kozovits, Caroline Ziade, Cristiano de Azevedo, Maria Rita Pires and Maria Cristina Messias	252 😊
17:00	Participatory ecological restoration: Guarumo's experience in Sarapiquí, Heredia, Costa Rica Alejandra Perez-Enriquez* and Fiorella R. Duran	370 😊
17:15	Effect: of landscape forest cover on early forest recovery on abandoned fields in dry and wet Mexican forests Iris Hordijk*, Lourens Poorter, Jorge Meave, Miguel Martinez-Ramos, Frans Bongers, Rodrigo Muñoz, Masha van der Sande and Jules Koppen	169 😊

Posters

All posters will be presented at the Claustro de la Ánimas of the CCC from 17:30 to 18:30 hrs.

[Section 1] Population, Community, or Landscape Ecology

Poster No.	Presentation	
1	The composition of mixed-species bird flocks in four habitats in the southern Ecuadorian Andes Nicole Lussier*	5 ☺
2	Indirect effects via ant sharing have a limited impact on herbivory levels in an ant-plant mutualistic network in Central Amazon Caroline Souza*, Pedro Bergamo, Laura Leal, Fabricio Baccaro and Anselmo Nogueira	125 ☺
3	Demographic analysis of two endangered populations of <i>Pristimantis bacchus</i> (Anura: Craugastoridae) from cloud forests fragments Silvia Porras Triana*, Martha Ramírez Pinilla and Víctor Serrano Cardozo	132 ☺
4	Tropical tree species differ in damage and mortality from lightning Jeannine Richards*, Evan Gora, Cesar Gutierrez, Jeffrey Burchfield, Phillip Bitzer and Stephen Yanoviak	148 ☺
5	Computer simulation of the demographic effects of sexual dispersal Fabiola Keesen*	175 ☺
6	Biological aspects and movements of neotropical fruit-feeding butterflies Giselle Lourenço*, Wesley Dáttilo, Servio Pontes Ribeiro and André Freitas	226 ☺
7	Trees size influences on anatomical and functional traits in two populations of tropical tree species Nelson Jaen Barrios*, José Roberto Aragão, Ellen Carvalho and Peter Groenendijk	227 ☺
8	What is the influence of seed-size based competitive hierarchy on the seedling community structure in a tropical forest? Larissa Oliveira* and Adriana Martini	340 ☺
9	Different axes of biodiversity reveal high heterogeneity in the rainforest of Amazonia at a local spatial scale Deliane Penha*, Marina Hirota, Caio Mattos, Mauro Monteiro Juior, Soliane Sousa, Mayda Rocha, Gleicy Rodrigues, Monique Bohora Schlickmann, Rafael Oliveira, Luciana Alves and Leandro Giacomini	346 ☺
10	Canopy tree mortality depends on the proportion of crown exposed to direct sunlight, tree growth, and species wood density Luisa Gomez Correa*, Daniel Zuleta, María Camila Jaramillo Hernández, Raquel Araujo, Nicolás Castaño and Alvaro Duque	365 ☺
11	Development of Methods for Quantifying Tropical Moist Forest Structure with the GeoSLAM Zeb Horizon Mobile Laser Scanner in Panama Crishtian Ramirez* and Helene Muller-Landau	368 ☺
12	"Paradox" of diversity in Asian dipterocarp forests: preliminary results from a pairwise plant-soil feedback experiment in Sri Lanka Akshay Surendra* and Liza Comita	369 ☺

13	Local-scale changes in topography influence tree growth and mortality in a terra firme forest in the Northwestern Amazon Paola Jaramillo Mejia*, Daniel Zuleta, Sabrina Russo, Nicolás Castaño and Alvaro Duque	378 ☺
14	Diversity of potential mycorrhizal fungi associated with the endangered orchid <i>Cattleya quadricolor</i> Lindl., endemic to tropical dry forest in Colombia. Erika Ramírez-Bejarano*, Ana Mosquera-Espinosa, Agustina Ventre and Nicola Flanagan	381 ☺
15	How ectomycorrhizal communities vary from natural to urban ecosystems: <i>Quercus humboldtii</i> as a study case in the tropical Andes Juan David Sanchez* and Adriana Corrales	376 ☺

[Section 2] Ecosystem Function, Ecosystem Services

Poster No.	Presentation	
16	Exploring the functional traits of frailejones (Espeletiinae, Asteraceae) Paula Vargas*, Adriana Corrales and Adriana Sanchez	256 ☺
17	Unrevealed plant food sources for stingless bees: The potential use of pollen and honey DNA metabarcoding Aline Martins, Alexander Keller, Thaís Vasconcelos, Antonio Aguiar, Carolyn Proença, Marcella Costa*, Hannah Farinasso, Krissy Dos Santos, Jair Eustáquio Faria, Matheus Carvalho, Rodrigo Dias, Sidonie Bellot, Mercedes Bustamante and Fernanda Carvalho	315 ☺
18	Bark water vapour conductance as an indicator of water stress conditions in tropical ecosystems Monique Bohora Schlickmann*, Caio Mattos, Larissa Verona, Rafael Oliveira, Carlota Kneip Puliti and Marina Hirota	343 ☺
19	Global problem, local impact: Could cultural uses of Amazon trees be under climate threat? Beatriz Tristão*, Raquel Machado, David Lapola and Maíra Padgurschi	350 ☺
20	Peatlands of the Amazon Basin: distribution, vegetation types & conservation status Charlotte Wheeler* and Kristell Hergoualc'h	248 ☺
21	Time series of analysis of Sentinel-1 and Sentinel-2 reveals phenological shifts in leafing dynamics in the Atlantic Forest of Brazil James Bell*	190 ☺
22	Fungal root endophytes of tropical pioneer plants from a premontane forest in Colombia Laura Rengifo* and Adriana Corrales	380 ☺
23	Functional traits of <i>Quercus humboldtii</i> across an environmental and disturbance gradient in the Tropical Andes Valentina Castañeda*, Adriana Corrales, Ana Aldana and Adriana Sanchez	463 ☺
24	Edaphic control of neotropical grassland community assembly Demétrius Lira Martins*, Rafael Xavier, Guilherme Mazzochini, Mariana Furtado, Larissa Verona, Fernanda Barros, Julliene Silva, Natashi Pilon, Carlota Kneip Puliti, Isabel Schmidt, Alexandre Sampaio, Lucy Rowland and Rafael Oliveira	531 ☺

[Section 3] Genetics, Evolution

Poster No.	Presentation	
25	Niche lability correlates with different life forms in a South American legume lineage Luana Prochazka*, Suzana Alcantara, Juliana Rando and Anselmo Nogueira	338 ☺
26	Tracing 250 years of taxonomic change in the largest clade of Neotropical lianas Fernanda Alves, Ana Gontijo, Juliana Stropp, Lucia Lohmann, Danilo Neves*, Joaquín Hortal and Leila Meyer	617 ☺
27	Adaptive genomics and ecological resilience: relevance for tropical biology and conservation Agostinho Antunes*	646 ☺
28	Crassulacean Acid Metabolism diversification in the Orchidaceae Katia Silvera*	723 ☺

29	Ferns of Colombia Sarah Morris*, Alejandra Vasco, Weston Testo, Susana Vega Betancur and Michael Sundue	796 ☺
30	Genetic diversity of Central American red brocket deer and brown brocket deer using novel informative microsatellite markers Brenda Muñoz* and Livia Leon-Paniagua	884 ☺
31	Genetic patterns of three Colombian <i>Magnolia</i> species (Magnoliaceae) using SSR markers Ana Rueda Urrego*, Marcela Serna, Marie-Stéphanie Samain and Emily Veltjen	913 ☺
32	Looking for the past to search for a future: first assessment of demographic changes in the hoary fox André da Silva, Carmen Barragan Ruiz, Karen Rodriguez-Castro*, Fernanda de Azevedo, Frederico Lemos and Pedro Galetti	250 ☺
33	Matrilineal structure of in-situ and ex-situ populations of the black lion tamarin (<i>Leontopithecus chrysopygus</i>) and insights for its conservation Patricia Freitas*, Rosane Santos, Pamela Modena, Yngrid Veltroni, Nathalia Javarotti, Paola Ayala-Burbano, Mara Marques, Alcides Pissinatti, Dominic Wormell, Gabriela Rezende, Laurence Culot and Pedro Galetti	759 ☺





[Section 4] Conservation, Restoration

Poster No.	Presentation	
34	Cattle pastures as carbon sinks: evaluating carbon storage of non-forest tree cover classes in dry tropical silvopastoral systems Bela Starinchak*, Christina Henriksen, Chantel Pence, Rachel Watts and Heather Griscom	154 ☺
35	Selection of species for ecological restoration in moorland ecosystems present in the Department of Quindío, Colombia Larri Álvarez Rodas, Marly Grajales Amorocho, Cristian Rativa Gómez*, Albert Ospina, JEAN PARRA, Carlos Agudelo Henao, Andres Felipe Orozco Cardona, Mara Piedrahita and Mayra Peláez Ávila	249 ☺
36	Species of Cyatheaceae kaulf., Polypodiopsida, present in the Herbarium University of Quindío -HUQ-, Colombia Cristian Rativa Gómez* and Carlos Agudelo Henao	251 ☺
37	Conservation status of a set of potential useful endemic plants from Colombia Paula Morales-Morales, Diana García-Ruenes* and Cristina Lopez-Gallego	321 ☺
38	Pregerminative tests of promising species for the restoration of the Iguaque flora and fauna sanctuary (Boyaca, Colombia). Analysis from literature Jeniffer Díaz Rodríguez*, Fagua Alvarez, Javier Quiroga, Diego Garcia and Maria Nuñez	375 ☺
39	Importance of degraded dry forest fragments for Javan mongoose (<i>Herpestes javanicus</i>): abundance and spatial ecology Sarah Sherburne*, Wyatt Petersen, Marnoch Yindee, Tommaso Savini and Dusit Ngoprasert	386 ☺
40	Ants: Bioindicators of ecological restoration processes at Zapatoca (Colombia) David Bulla* and Jaime Polanía	402 ☺

[Section 5] Bioinformatics, Modeling

Poster No.	Presentation	
41	Analysis of the propagation of Moko (<i>Ralstonia solanacearum</i> phylotype II race 2) in plantain crop (Musa AAB Simmonds) with mathematical Marly Grajales Amorocho*, Cesar Acosta-Minoli and Dalia Muñoz Pizza	556 ☺
42	Co-evolution between Heliconius and Passiflora: a search for evidence from its geographic distribution and species richness Catalina Sánchez-Melo*, Nicol Rueda-M and Camilo Salazar	755 ☺
43	Method development for paleoclimate estimation using anatomical characters of Neotropical woods Victor Vasquez* and Camila Martínez	861 ☺

Virtual Posters

Poster No.	Presentation	
44	Mismatch between functional and interaction spaces in response to extinctions in predator-prey networks Karoline Ceron*, Lilian P. Sales, Diego Santana and Mathias Mistretta Pires	43 
45	Revaluating species topological importance in the largest neotropical seed dispersal network André Martinez* and Mathias Mistretta Pires	167 
46	Floral size drives patterns of bee visitation to poricidal anthered flowers across case studies Tamiris Delgado*, Laura Leal, Juliana Ottra, Vinicius Brito and Anselmo Nogueira	500 
47	Using genomic tools to guide conservation of an overexploited Neotropical tree species Carolina Grando*, Rhewter Nunes, Malte Mader, Catarina Silva de Carvalho, Cintia Luíza da Silva Luz, José eduardo Mejía de loayza, David Roy Aldana Gomero, Carmen García Davila, Denis Torres, Eurídice Honorio Coronado and Alison Nazareno	572 

Social Events



Mentoring Circle

12:30 - 13:45 hrs (During the lunch break), Room: Barahona 1

The ATBC Mentoring Circle program for 2022-2023 is designed to bring together groups of 8-10 ATBC members to provide support, networking, and advice for career development in tropical biology and conservation. Specifically, we aim to support early career tropical biologists (i.e., graduate students and postdocs) by providing a network of individuals that can provide advice, best practices, and tools to achieve success. Two to four mentors will serve as facilitators for each Mentoring Circle.

More than Biological Collections: The Importance of Botanic Gardens, Herbaria, Museums, and Zoos for the Conservation of Tropical Biodiversity

18:30 - 19:30 hrs, Room: Arsenal

Scientific knowledge produced at academic institutions is critical to inform conservation action. However, information stemming from scientific studies is not always translated and incorporated into policies or practical guidelines nor is research by academic institutions reaching non-academic audiences. Botanic gardens, herbaria, museums, and zoos (biological collections) sit at the intersection of academia and the public, which enables them to serve as champions for biodiversity conservation and outreach. Although traditionally viewed as places focused on collecting and documenting biodiversity, most institutions with biological collections now host exhibits aimed at raising awareness for conservation issues, such as species loss or climate change. Because of the taxonomic expertise of staff in these institutions, many of them have taken the lead to assess the threats of different taxonomic groups through the IUCN Red List, and many have local outreach projects with direct conservation impact in the communities where they are located. Two examples are the Global Conservation Consortia for Magnolias and Oaks, which bring together scientific experts and conservation practitioners around two important tree taxonomic groups. There is still, however, much to be done: in the tropics, collection-based institutions are often understaffed and underfunded, limiting their ability to maximize their impact for conservation in biodiversity hotspots, where it is most needed. In this session, we will discuss how to increase participation of collection-based institutions within ATBC and how ATBC can support these institutions so they can capitalize on their strategic role as advocates for local biodiversity and bridges between academia and the public. We invite anyone to participate in this informal conversation!

Progressing towards the conservation of the great diversity of birds life in Colombia: Developing the National Bird Conservation Strategy 2021-2030

18:30 - 19:30 hrs, Room: Secretaría

Colombia is considered "the country of birds" with an estimated 1,954 species, at least 83 endemic and 193 near-endemic. We are presenting today the ENCA, the National Bird Conservation Strategy for Colombia. Through the development and implementation of the ENCA, we seek to develop a strong policy framework, supported by science, to help integrate birds into public policies and connect conservation actions with national and international initiatives in the long term. This is the second Strategy in Colombia, a revised and updated version done 20 years after the initial effort. The ENCA was developed as a collaborative effort, through a process led by the Colombian Birdwatchers' Network (RNOA), the Humboldt Institute and National Audubon Society. It was built through a participatory, inclusive, and comprehensive process in which more than 800 people from different sectors (public, private, NGOs, academia, local and indigenous communities) and regions of the country participated. The challenge for the ENCA moving forward will be to identify how to achieve the conservation goals, increase ecosystem resilience and human well-being. From this revised framework we seek to learn from the different experiences and criteria, which supported by science, can influence government actions at the national and regional levels.

Neotropical Chapter Social Mixer

18:30 - 19:30 hrs, Room: 201

The ATBC Neotropical Chapter was officially launched at the 2017 ATBC meeting in Mérida, Mexico. Since its launch the ATBC Neotropical Chapter has led a number of activities and events at different global ATBC meetings while also holding online activities such as webinars and workshops. The Neotropical Chapter is playing a central organizing role in the current global ATBC meeting in Cartagena. In this social mixer we will provide a brief overview of the accomplishments of the Neotropical Chapter since its inception, and announce upcoming plans and changes to its leadership. The event will also provide an opportunity for Neotropical scientists to convene and socialize at an informal session. We welcome all interested participants to come to the mixer and bring your ideas with you!

Tuesday
July 12

Plenary Sessions



Climate and Environmental Crisis: How to Get Out of the Crossroad?

Keynote

8:00 hrs, Getsemaní

Speaker: Germán Poveda

Speaker bio

Germán Poveda Jaramillo is a Civil Engineer and Master in Water Resources Development from the School of Mines of the Universidad Nacional de Colombia; Master in Engineering Sciences from the University of California, Davis, California, United States; Ph.D. in Water Resources from the School of Mines and Post-Doctorate, Hydro-Ecology, University of Colorado, Boulder, Colorado, United States. Since 1998 he has been a member of the Intergovernmental Panel on Climate Change (IPCC), being one of the Lead Authors of the Latin American chapter for the IPCC Reports.

Professor Poveda Jaramillo is a Full Member of the Colombian Academy of Exact, Physical and Natural Sciences, he also assumed as director of the Antioquia Chapter of ACCEFYN replacing Dr. Angela Restrepo Moreno, who participated in the first Mission of Wise Men. He has received 3 times the Alejandro Angel Escobar Foundation Award in the category of Exact, Physical and Natural Sciences and Environment and Sustainable Development, in addition to 3 Honorable Mentions in such awards.

His research areas are Hydrology, Climatology, Meteorology, Oceanography, Ecology, Influence and Effects of El Niño and La Niña in Colombia and the South American tropics. Links between climate variability and human health; Environmental Sciences; Climate Change in Colombia and tropical South America; Chaos, Fractals, Scaling, and Nonlinear Dynamical Systems in Geophysics and Turbulence; Stochastic Processes and Time Series Prediction; Applied Mathematics in Engineering.

Symposia



-10:20 to 12:20 hrs-

Insular habitat fragmentation induced by hydroelectric dams: an emerging threat to biodiversity (Part 1/2) (S-3)

Room: Arsenal

Time	Presentation	
10:30	Introduction	
10:45	Hydropower: An emerging driver of biodiversity loss, an established model for fragmentation science Luke Gibson* and Ana Filipa Palmeirim	212
11:00	The prevalence and diversity of avian haemosporidians in fragmented habitats of the Thousand Island Lake, China Qiang Wu* and Ping Ding	231
11:15	Effects of habitat insularization on Amazonian arthropods and their ecological processes in a 30-year-old forest archipelago Danielle Storck-Tonon*, Alexandre Somavilla, Thiago Izzo, José Ferreira, Dionei Silva, Carlos Peres and Ricardo Silva	827
11:30	Invasive rat drives complete collapse of native small mammal communities in insular forest fragments Jonathan Moore*, Ana Filipa Palmeirim, Carlos Peres, Dusit Ngoprasert and Luke Gibson	121
11:45	Partitioning extirpation and colonisation components of avian beta diversity on land-bridge islands Di Zeng*, Yuhao Zhao and Xingfeng Si	216
12:00	A tale of savanna lizards in artificial islands in central Brazil Reuber Brandão*	183
12:15	Microhabitat and island area affect the abundance and richness of ants on fragmented habitat islands Yuhao Zhao* and Xingfeng Si	180

Status of biodiversity in the Amazon (S-20)

Room: Barahona 1

Time	Presentation	
10:30	Introduction James Albert*	58
10:45	Red listing of Amazonian plant species Mônica Moraes R.*, Renato Lima, Hans ter Steege, Alexandre Antonelli, Lucia Lohmann, Freddy Ruiz and Julia Arieira	852
11:00	Conservation status of potentially threatened Amazonian fishes Victor Tagliacollo*, Fernando Dagosta and James Albert	825
11:15	Evaluating IUCN conservation status of Amazonian birds Marco Rego, Glaucia Del-Rio, Camila Ribas* and Robb Brumfield	641
11:30	Synergize project: Building ecological knowledge on Amazonian insects through collaboration Filipe França*, Nelson Pinto, Raquel Carvalho, Cássio Nunes, Rafaella Maciel, Juliana Silveira, Jos Barlow, Leandro Juen, Fabricio Baccaro, Fernando Schmidt, Fernando Vaz-de-Mello, Amanda Mortati, Jansen Zuanon, Jorge Luiz Nessimian, Ana Luiza Andrade, Bethânia Resende, Cecília Leal, Cristian Penagos, Erlane Cunha, Fernando Carvalho, Francisco Neto, Gabriela Jardim, Inês Gonçalves, Márcia Souza, Patricia Peruquetti, Rafael Braga, Rafael Bastos, Raúl Pérez, Rafael Boldrini, Silvia Dutra, Thiago Miguel, Victor Ferreira, Viviane Firmino, Leandro Brasil, Yulie Feitoza, Amanda Oliveira, Andressa Menezes, Chaim Lasmar, Carla Ribas, Cláudio Santos-Neto, Danielle Storck-Tonon, Emely Siqueira, Fabiana Oliveira, Jorge Souza, Guillaume Rousseau, Heraldo Vasconcelos, Hilton Aguiar, Itanna Fernandes, Thiago Izzo, Jean Carlos Santos, Lívia Prado, Luane Rocha, Lucas Paolucci, Marcos Oliveira, Marília da Costa, Francisco Sales, Otávio Silva, Patrícia Miranda, Ricardo Vicente, Joudellys Andrade-Silva, Rogério Silva, Rony Almeida, Ricardo Solar, Vanessa Ribeiro, Talitha Santos, Wesley Dáttilo, Alexander Lees, Anderson Puker, Bruna Melo, Charles Marsh, Erika Berenguer, Liz Nichols, Hannah Griffiths, Wallace Beiroz, Jorge Noriega, Jullio Louzada, Julius Cerqueira, Marcio Uehara-Prado, Maria Maldaner, Mateus Souza, Ricardo Silva, Matavelli Rodrigo, Victor Oliveira, Vanesca Korasaki, Sérgio Oliveira, Thaline Brito, Adem Geber-Filho, Elder Morato, Sérgio Milheiras, Fernando Silva, Rafael Andrade and Joice Ferreira	871
11:45	Discussion/Conclusions	

Overcoming implicit bias in the tropical science community for better conservation research and practice (Part 1/2) (S-7)

Room: Barahona 2

Time	Presentation	
10:30	Introduction	
10:45	Overcoming implicit bias in ecology and conservation publishing Bea Maas*, Robin Pakeman, Laurent Godet, Linnea Smith, Vincent Devictor and Richard Primack	737
11:00	Community-based monitoring and the inventory of birds in Colombia: Examples from the Andes to the Amazon Orlando Acevedo-Charry, Diego Rocha*, Flor Peña-Alzate, Jorge Muñoz-García, William Daza-Díaz, Brayan Coral Jaramillo and Edilson Rosero	305
11:15	Conservation in the tropics: From ecological theory to transdisciplinary practice Alejandro Ortega-Argueta*	360
11:30	Opportunities at the science-conservation interface Jean Paul Metzger* and Marisa Mamede	831
11:45	Transdisciplinary conservation requires long term collaboration with patience, listening and the pursuit of justice: reflections on jaguar conservation in Mexico Birgit Schmook*, Lou Lecuyer, Sophie Calmé and Rehema White	32
12:00	Implementing Transdisciplinary and Sustainability Science for Conservation Research and Practices in the Tropics Damayati Buchori*, David Ardhian, Larissa D. Salaki and Bonie Dewantara	776
12:15	Challenges to guaranteeing inclusion and equity to women in science: An intercultural approach with emphasis on Latin America Bibiana Rojas*	596

Linking field-oriented ecology and ecologists with land surface models and modelers (Part 1/2) (S-17)

Room: Barahona 3

Time	Presentation	
10:30	Introduction	
10:45	Global calibration of E3SM-FATES using ground data from a forest monitoring network Jessica Needham*	329 ☺
11:00	Linking field observations, lidar, and ecosystem models to understand the impact of Amazon forest degradation on water and carbon cycles Marcos Longo*, Michael Keller, Sassan Saatchi, Xiangtao Xu, Paul Moorcroft, Alexandra Konings, Jean Ometto, António Ferraz, Ovidiu Csillik, Elsa Ordway, Erik Larson and Lara Kueppers	89 ☺
11:15	Parameterizing tropical forest diversity: integrating a terrestrial biosphere model with remotely sensed trait measurements Elsa Ordway*, Gregory Asner, David Burslem, Stuart J. Davies, , Roberta Martin, Mohamad Mohizah, Reuben Nilus, Michael O'Brien, Oliver Phillips, Lan Qie, Sabrina Russo, Marcos Longo, Xiangtao Xu and Paul Moorcroft	521 ☺
11:30	The nature of Amazonian tree mortality Adriane Esquivel Muelbert*, Oliver Phillips, Thomas Pugh, David Galbraith and RAINFOR NETWORK	850 ☺
11:45	Insights into tropical tree mortality and damage from a multi-site monitoring program informing vegetation models Daniel Zuleta*, Gabriel Arellano, Helene Muller-Landau, Sean McMahon, Salomón Salomón Aguilar, Sarayudh Bunyavejchewin, Nicolás Castaño, Chia-Hao Chang-Yang, Alvaro Duque, David Mitre, Musalmah Nasardin, Rolando Pérez, I-Fang Sun, Tze Leong Yao, Renato Valencia and Stuart J. Davies	460 ☺
12:00	Model hypotheses for variation in tree hydraulic functional strategy across tropical forests Thomas Pugh*, Daijun Liu, Annemarie Eckes-Shephard, Phillip Papastefanou, Anja Rammig, Adriane Esquivel Muelbert, Thomas Matthews and Jonathan Sadler	635 ☺
12:15	Integrating hydrology, tree demography and traits data to advance land surface model predictions of tropical forest response to droughts Rutuja Chitra-Tarak*	911 ☞

Tropical forest response to temperature: a pantropical synthesis of elevation gradients, and leaf thermoregulation studies (Part 1/2) (S-19)

Room: Barahona 4

Time	Presentation	
10:30	Introduction	
10:45	Using transplant experiments to understand the effects of climate change on trees and crops in the tropical Andes Kenneth Feeley*, Heraldo Vasconcelos and Richard Tito Leon	223 ☺
11:00	Andean dominant tree species respond differently to global warming: Insights from field experiments Zorayda Restrepo*, Lina Mercado, Iain Hartley, Sebastian Gonzalez-Caro and Juan Camilo Villegas	665 ☺
11:15	Water-use strategies under heat stress and their impact on growth and mortality of Rwandan tropical trees Maria Wittemann*, Myriam Mujawamariya, Bonaventure Ntirugurirwa, Etienne Zibera, Donat Nsabimana, Göran Wallin and Johan Uddling	207 ☺
11:30	Photosynthetic thermal acclimation capacity of tropical montane rainforest trees in Rwanda and in the Colombian Andes Mirindi Eric Dusenge*, Maria Wittemann, Myriam Mujawamariya, Lasse Tarvainen, Etienne Zibera, Bonaventure Ntirugurirwa, Danielle Way, Donat Nsabimana, Johan Uddling, Göran Wallin, Lina Mercado, Zorayda Restrepo, Sebastian Gonzalez-Caro, Patrick Meir and Adriana Sanchez	513 ☞
11:45	Physiological acclimation and leaf temperature proximities to thermal thresholds across a Puerto Rican forest Kelsey Carter*, Tana Wood, Sasha Reed, Kaylie Butts and Molly Cavaleri	496 ☺
12:00	Diurnal variation of photosynthetic rate on tropical montane tree species Sebastian Gonzalez-Caro*, Lina Mercado, Eric M Dusenge, Andrew Cox and Mirindi Eric Dusenge	498 ☺

12:15	Leaf thermoregulation in the world's hottest tropical rainforest Sean Michaelitz*, Sandra Duran, Vanessa Buzzard, Steven Leavitt, Nate McDowell, Scott R. Saleska, Joost van Haren, Peter Troch and Brian Enquist	296 ☺
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The socio-ecological dynamics of tropical silvopastoral systems (Part 1/2) (S-21)

Room: Getsemaní

Time	Presentation	
10:30	Introduction	
10:45	Public Policies and Silvopastoral Systems in Colombia, Argentina, and Costa Rica: A Comparative Analysis Leonardo Moreno Lerma, Manuel Díaz Baca, Natalia Triana Angel* and Stefan Burkart	36 ☺
11:00	Mixed methodologies to understand livestock farmers' participation in agri-environmental projects: dialogues about the social in interdisciplinary research Maria Paula Escobar*	526 ☺
11:15	Sustainable Beef Labeling in Latin America: Initiatives based on Silvopastoral Systems Manuel Díaz Baca*, Leonardo Moreno Lerma, Natalia Triana Angel and Stefan Burkart	37 ☺
11:30	The use of <i>Arachis pinto</i> in cattle systems in Colombia's Orinoquía region as a first step towards silvopastoral systems Karen Enciso Valencia*, Álvaro Rincón Castillo, Alejandro Ruden and Stefan Burkart	84 ☺
11:45	Fast tracking silvopastoral systems by using local tree knowledge in the Amazon region of Colombia Juan Cardoso*, Mauricio Sotelo-Cabrera and Natalia Triana Angel	520 ☺
12:00	<i>Ficus thonningii</i> silvopastures for reducing drought related risks disasters in the drylands of northern Ethiopia Mulubrhan Balehegn Gebremikael*	50 ☺
12:15	The potential of silvopastoral systems in the Brazilian Amazon's 'arc of deforestation' Saulo Souza, Andreza Spexoto, Alexandre Olival, Kyle Dexter, William Milliken, Rosalía Piñeiro, Maristerra Lemes, Carolyn Petersen, Ana Carolina França Bogo, Catherine Kidner and Toby Pennington*	398 📖

The High Frontier revealed: Arboreal camera trapping's potential to unlock the canopy's mysteries (S-47)

Room: 201

Time	Presentation	
10:30	Introduction	
10:45	Climbing to new conclusions: Innovating remote camera technologies and approaches for the advanced study of nocturnal pollination in the canopy Peter Houlihan*	725 ☺
11:00	Arboreal camera trap reveals the frequent occurrence of a frugivore-carnivore in neotropical nutmeg trees Marie Séguigne*, Opale Coutant, Bouton Benoît, Picart Lionel, eric guilbert and Pierre-Michel Forget	213 📖
11:15	Experiences in the implementation of the Orion Camera System William Bonell*, Silvia Alvarez, Leonor Valenzuela, Carlos Saavedra and Juliette González	947 ☺
11:30	From the ground to the tree: how arboreal cameras can increase our understanding of primate distribution Jennifer Moore* and Emmanuel Akampurila	436 📖
11:45	The potential and practice of arboreal camera trapping: A 2022 update Farah Carrasco-Rueda*, Jennifer Moore, Kylie Soanes, Diego Balbuena, Erik Olson and Tremaine Gregory	587 ☺
12:00	Conservation in the canopy: using passive recording devices to investigate habitat associations of two threatened primates Jacquelyn Tleimat*, Sarah Fritts, David Rodriguez, Shawn McCracken and Ryan Lynch	994 ☺
12:15	Discussion/Conclusions	

The other side of drought: Why shallow water-table forests may be resilient to climate change-linked-droughts (S-5)

Room: 302

Time	Presentation	
10:30	Introduction	
10:45	Introduction to the water table: why does it matter for plants and how it varies across geomorphology and soils Flavia Costa*, Juliana Schietti, Marielle Smith and Scott Stark	458 ☺
11:00	The filtering effect of water table depth on plant functional traits Juliana Schietti*, Maquella Garcia, Edher Cordoba, Elisangela Rocha, Erick Jonathan Esteban, Leonardo Ziccardi and Flavia Costa	456 ☺
11:15	The spatial patterns of Amazonian Forest composition and structure as determined by water table depth Thaise Emilio*, Juliana Schietti, Thaiane de Sousa, Manuel Zevallos, Priscila Costa, Gabriel Moulatlet and Flavia Costa	236 ☞
11:30	A remote sensing perspective on the effects of water table depth on forest structure and functioning Marielle Smith*, Scott Stark, Juliana Schietti, Flavia Costa, Diogo Rosa, Dalton Freitas do Valle and Bruce Walker Nelson	426 ☞
11:45	Forest dynamics and responses to drought modulated by the water table depth Erick Jonathan Esteban*, Thaiane de Sousa, Juliana Schietti, Carolina Méndez and Flavia Costa	177 ☺
12:00	A synthesis and theoretical perspective linking hydrological regimes with functional responses to understand the potential resilience of waterlogged Amazon forests Scott Stark*, Flavia Costa, Juliana Schietti and Marielle Smith	668 ☺
12:15	Discussion/Conclusions	

Communal territory management and its implications in the conservation of biodiversity in the Andes (S-44)

Room: 303

Time	Presentation	
10:30	Introduction	
10:45	Resilience from whom: understanding social-ecological key processes in the Andean region. Sebastian Restrepo Calle*	656 ☺
11:00	Targeting socioecological resilience through integral communal territory management – A case study from the southeast of the Peruvian Andes Dina Farfán Flores*	963 ☞
11:15	Participatory mapping of the multiple values of Nature's Contributions to People in an agricultural area of the Colombian Andes Robert Kockelkoren*, Sebastian Restrepo Calle and Martin Bermudez-Urdaneta	145 ☺
11:30	Current status and potential of community-managed bofedales as integral part of adaptation strategies to the impacts of accelerated climate change Jan Baiker*	952 ☞
11:45	Underutilized and resilient to climate change food plants in high Andean communities of the Anta Province, Cusco, Perú Maria Holgado*, Alfredo Tupayachi Herrera, Justo Mantilla Holguin, Gloria Calatayud Hermoza, Maria Quispe Ricalde and Daniel Paucarmayta Holgado	964 ☺
12:00	Land ownership history, ethnicity, payment for ecosystem services and the challenges of the conservation in tropical mountains Edna Rincón* and Juan Benavides	285 ☺
12:15	Discussion/Conclusions	

Tropical forest restoration: Role of soil biota-root symbioses (mycorrhizae and N-fixing bacteria) (S-22)

Room: 304

Time	Presentation	
10:30	Introduction	
10:45	Afrotropical forest succession: from nitrogen to calcium limitation Marijn Bauters and Viktor Van de Velde*	960 ☺
11:00	Microbial plant-soil feedbacks affect secondary succession of tropical rainforests Anita Weissflog*, Bettina Engelbrecht, John R Healey and Lars Markesteijn	153 ☺
11:15	Integrating mycorrhizal associations with nutrient acquisition strategies in Southeast Asian dipterocarp forests Ming Yang Lee*, Qian Yi Ho and Kelly Andersen	171 ☺
11:30	Advantages of being a N-fixing plant when restoring tropical dry forests Laura Toro*, Jennifer Powers and Francisco Torres	406 ☺
11:45	The role of symbiotic nitrogen fixation and arbuscular mycorrhizae during secondary forest recovery in the Neotropics Michelle Wong*, Nina Wurzbürger, Christopher Neill, Divino Vicente Silvério, Paulo Brando, Kristin Saltonstall, Jefferson Hall, Roxanne Marino, Robert Howarth and Sarah Batterman	359 ☺
12:00	Discussion/Conclusions	

Plant ecophysiology in a changing world: applications for forest management and restoration ecology (S-32)

Room: Secretaría

Time	Presentation	
10:30	Introduction	
10:45	Drought effects on tree water use are mediated by management, but the effects of management can be temporary Katherine Sinacore*	259 ☺
11:00	Beyond forest ecosystems: Using the trait-based approach to understand restoration challenges in Brazilian savannas André Giles*, Mateus Silva, Patricia Costa, D'Angioli Andre, Fernanda Barros, Larissa Verona, Demétrius Lira Martins, Isabel Schmidt, Alexandre Samapao, Lucy Rowland and Rafael Oliveira	433 ☺
11:15	Belowground traits mediate tree survival in a tropical dry forest restoration Leland Werden*, Colin Averill, Tom Crowther, Erick Calderón-Morales, Laura Toro, Pedro Alvarado J., Milena Gutiérrez L., Danielle Mallory and Jennifer Powers	417 ☺
11:30	Using leaf functional traits as an approach to species screening in restoration projects in the Amazonia Zilza Guimarães*	615 🖥
11:45	Using hydraulic traits to predict species distribution and to inform restoration strategies in tropical ecosystems Rafael Oliveira*, Mateus Silva, Rafael Xavier, Fernanda Barros, Isabel Schmidt, André Giles, Patricia Costa, Alexandre Sampaio, Larissa Verona, Caio Mattos, Guilherme Mazzochini, Demétrius Lira Martins and Lucy Rowland	497 ☺
12:00	Discussion/Conclusions	



-14:00 to 16:00 hrs-

Insular habitat fragmentation induced by hydroelectric dams: an emerging threat to biodiversity (Part 2/2) (S-3)

Room: Arsenal

Time	Presentation	
14:00	Surviving Island Life: Island colonisation leads to rapid behavioural and morphological change Daniel Nicholson*, Robert Knell, Rachel McCrea, Lauren Neel, John David Curlis, Claire Williams, Albert Chung, W. Owen McMillan, Trenton Garner, Christian Cox and Michael Logan	55 🖥
14:15	Are habitat loss and fragmentation effects on small mammals mediated by higher trophic levels? — Insights from Amazonian forest islands Ana Filipa Palmeirim*, Maíra Benchimol, Marcus Vinicius Vieira and Carlos Peres	219 😊
14:30	Matrix-subsidized tropical forest remnants retain threefold more bird species than analogous islands Anderson Bueno* and Chase Mendenhall	504 😊
14:45	Extending species-area relationships to the realm of eco-acoustics: the island soundscape-area relationship Thomas Luybaert*, Anderson Bueno, Carlos Peres and Torbjørn Haugaasen	136 😊
15:00	Biodiversity-hydropower tradeoffs of existing and planned dam infrastructure in lowland Amazonia Carlos Peres*, Maíra Benchimol and Rodrigo Anzolin Begotti	309 😊
15:15	Discussion/Conclusions	

Large-scale tropical biodiversity change: measurement, implications, and spatial scaling (S-43)

Room: Barahona 1

Time	Presentation	
14:00	Introduction	
14:15	Resurveying Colombia's birds: 100 years after Chapman Natalia Ocampo-Peñuela*, Camila Gómez-Montes, Daniel Cadena, Andrés Cuervo, Glenn Seeholzer, Juliana Soto-Patiño and Nelsy Niño	753 😊
14:30	Unpacking the spatial scaling of biodiversity loss across Colombia Samuel Socolar*, Simon Mills, James Gilroy, Diego Martinez-Revelo, Claudia Medina, Edicson Parra-Sanchez, Marcela Ramirez-Gutierrez, Jørgen Saebo, Henry Meneses, Jose Ochoa-Quintero, Rob Freckleton, Torbjørn Haugaasen and David Edwards	835 😊
14:45	Indicators of intact vocalizing biodiversity across different scales in tropical forests Zuzana Burivalova*	594 😊
15:00	100-year resurvey shows differential impact of climate change and landcover alteration on populations of Mexican birds Ryan Terrill*	600 😊
15:15	Human-modified landscapes reduce mountainous biodiversity Edicson Parra-Sanchez*, David Edwards and M. Hethcoat	980 😊
15:30	Discussion/Conclusions	

Overcoming implicit bias in the tropical science community for better conservation research and practice (Part 2/2) (S-7)

Room: Barahona 2

Time	Presentation	
14:00	Tropical Biology on Boots: Challenges and Strategies to promote inclusion and equity in fieldwork Ximena Bernal*	99
14:15	Consequences of language barriers in ecology and conservation Tatsuya Amano*	90
14:30	Discussion/Conclusions	

Linking field-oriented ecology and ecologists with land surface models and modelers (Part 2/2) (S-17)

Room: Barahona 3

Time	Presentation	
14:00	The Distribution of EcM Trees in Lowland Tropical Forests Jose Medina-Vega*, Salomón Salomón Aguilar, Alfonso Alonso, Pulchérie Bissiengou, Warren Brockelman, Sarayudh Bunyavejchewin, David Burslem, Richard Condit, Alvaro Duque, Sisira Ediriweera, Corneille Ewango, Robin Foster, Stephen Hubbell, Akira Itoh, Somboon Kiratiprayoon, Yao Leong, Shawn Lum, Jean-Remy Makana, Hervé Memiaghe, Mohamad Mohizah, Anuttara Nathalang, Vojtech Novotny, Michael O'Brien, Alexandre Oliveira, Rolando Pérez, Nantachai Pongpattananurak, Glen Reynolds, Sylvester Tan, Jill Thompson, Maria Uriarte, Renato Valencia, Alberto Vicentini, George Weiblen, Jess Zimmerman and Stuart J. Davies	303 ☺
14:15	Leveraging multi-source forest data to predict cyclone responses in tropical forest Barbara Bomfim*, Mingjie Shi, Dellena Bloom, Yanlei Feng, Michael Keller and Lara Kueppers	547 ☺
14:30	Discussion/Conclusions	

Tropical forest response to temperature: a pantropical synthesis of elevation gradients, and leaf thermoregulation studies (Part 2/2) (S-19)

Room: Barahona 4

Time	Presentation	
14:00	Long-term drought effects on the thermal sensitivity of Amazon Forest trees Emma Docherty*, Emanuel Gloor, Daniela Sponchiado, Martin Gilpin, Carlos Pinto, Haroldo Junior, Ingrid Coughlin, Leandro Ferreira, João Junior, Antonio da Costa, Patrick Meir and David Galbraith	310 ☺
14:15	Investigating the effects of higher temperatures on Cerrado tree reproduction Georgina Werkmeister*, David Galbraith, Milene Alves, Márcia Cardoso da Silva, Jairo Matos da Rocha, Paulo Alves da Silva, Bruno Gonçalves Lopes, Daniel Ferreira de Oliveira, Regiane Batista Santos, Denilson Mendes Santos, Beatriz Marimon, Ben Hur Marimon Júnior, David Ashley, Santiago Clerici, Oliver Phillips and Emanuel Gloor	332 ☺
14:30	Photosynthetic thermal optima controlled by stomatal conductance in six subtropical species and do not acclimate across an urban thermal gradient. Alyssa Kullberg*	103 ☺
14:45	The importance of tree species traits for leaf temperature regulation – observations from three forest types in China Sophie Fauset*	857
15:00	Discussion/Conclusions	

The socio-ecological dynamics of tropical silvopastoral systems (Part 2/2) (S-21)

Room: Getsemaní

Time	Presentation	
14:00	Potential economic benefits of integrating silvopastoral arrangements in Latin American beef cattle fattening systems Irieleth Gallo Caro, Karen Enciso Valencia* and Stefan Burkart	97 ☺
14:15	Silvopastoral systems: contributions to the environment and local livelihoods in the Colombian Amazon Miguel Romero Sanchez* and Marcela Quintero	839 ☺
14:30	Can silvopasture support biodiversity in Amazonian farmlands? Lois Kinneen*, Cristina Rosique-Esplugas, Michael Garratt, Jill Thompson, Yardany Ramos Pastrana, Luis Miguel Hernandez and Edwin Trujillo	522 ☺
14:45	<i>Ficus thonningii</i> silvopastures for livelihood improvement, climate change adaptation and environmental resilience Mulubrhan Gebremikael*	85 📖
15:00	Silvopastoral Systems, working with communities in the Department of Caquetá Mauricio Sotelo-Cabrera*, Juan Cardoso, Alejandro Montoya and Jacobo Arango	689 ☺
15:15	Silvopastoral systems to promote pollinator friendly cattle production systems Juan Cardoso*, Stefan Burkart and Narjes Manuel	893 ☺
15:30	Discussion/Conclusions	

Conserving the world's macroflora - from tree Red List assessments to tree conservation in action (S-11)

Room: 201

Time	Presentation	
14:00	Introduction	
14:15	The Global Tree Assessment: State of the World's Trees Katharine Davies*	130 ☺
14:30	Progress towards the Red List of Endemic Trees of Venezuela Alejandro Gallardo*, Irene Zager and Ricmary Bron	797 📖
14:45	Planning for Tree Conservation in Colombia: Red List and Conservation Action Plans for Tree Species of Conservation Priority Cristina Lopez-Gallego*	142 ☺
15:00	Conservation of Magnoliaceae in Colombia – a successful case study of national and international cooperation Alvaro Cogollo* and Marcela Serna González	582 ☺
15:15	From Assessment to Action: The Morton Arboretum's Efforts to Conserve Oaks in Mesoamerica Silvia Alvarez-Clare*, Amy Byrne, Emily Beckman Bruns and Murphy Westwood	698 ☺
15:30	Discussion/Conclusions	

Tropical montane ecosystems: biodiversity, carbon and climate change (S-15)

Room: 302

Time	Presentation	
14:00	Introduction	
14:15	The effect of biogeographic legacy on tropical Andean forests Sebastian Gonzalez-Caro and Alvaro Duque*	503 ☺
14:30	Temporal shifts in functional composition of Andean forests at different elevations are driven by climate change Johanna Martínez-Villa*, Sandra Duran, Brian Enquist, Alvaro Duque, Christian Messier and Alain Paquette	599 ☺
14:45	Using space-for-time substitutions to infer the long-term climate sensitivity of tropical forests Martin Sullivan*	449 🖥
15:00	Tree diversity patterns in African tropical montane forests Aida Cuni-Sanchez*	391 ☺
15:15	Discussion/Conclusions	

Patterns and mechanisms of diversity and forest change in the Andes (S-10)

Room: 303

Time	Presentation	
14:00	Introduction	
14:15	Environmental bias of the Colombian Andean flora Carlos Vargas*, Marius Bottin, Tiina Sarkinen, James Richardson, Lauren Raz, Carol Garzon-Lopez and Adriana Sanchez	363 ☺
14:30	The biogeographic assembly of a tropical montane biota J. Sebastian Tello*, Alfredo Fuentes, Cayola Leslie and Alexander Linan	823 ☺
14:45	Effects of local disturbance and urban growth on high-Andean forests composition and cover Mariasole Calbi* and Francisco Fajardo	49 🖥
15:00	Phenology of woody plants along a successional gradient in a tropical Andean Mountain Forest Carolina Alvarez-Garzón*, Juan Posada and Brayan Polanía	722 ☺
15:15	Above and belowground functional traits and their relation to Andean species' performance planted in abandoned pastures. Ana Belén Hurtado-M*, Beatriz Salgado-Negret, Maria Echeverry-Galvis and Natalia Norden	630 ☺
15:30	Discussion/Conclusions	

Addressing the drivers of resilience: Understanding functional biodiversity and underlying processes that determine ecosystem health (S-30)

Room: 304

Time	Presentation	
14:00	Introduction	
14:15	Changing Climate: increase in dry season temperature in the Amazon basin Ana Carolina Pessôa*, João dos Reis, Nathália Carvalho, Celso Henrique Leite Silva Junior and Liana Anderson	29 ☺
14:30	Increased specialised functional traits of soil microorganisms implicate a vivid functional redundancy after anthropogenic and natural stress Diana Boy*, Jenny Silke Bauer, Elisa Díaz Garcia, Simone Kilian Salas, Alberto Andrino de la Fuente, N. Galia Selaya, Hermann F. Jungkunst, Georg Guggenberger, Jens Boy and Marcus Horn	228 ☺
14:45	Ant assemblages response to a forest cover gradient in southwestern Brazilian Amazon Fernando Schmidt* and Marília da Costa	314 📖
15:00	How to cope with Increasing Risk of Wildfires in Amazonia? Liana Anderson*, Camila Silva, Celso Henrique Leite Silva Junior, Sonaira Silva, N. Galia Selaya, Wesley Campanharo, Thiago Morello, João dos Reis, Ana Carolina Pessôa, Gleiciane Pismel, Yara de Paula, Nathália Carvalho, Monique Maia and Luiz Aragão	345 ☺
15:15	Lessons Learned from Forest Health Participatory Action Research in Chico Mendes Extractive Reserve Sabina Ribeiro* and N. Galia Selaya	353 📖
15:30	Functional Diversity and Ecosystem Services: Indicators for policy options Oliver Frör*	616 ☺
15:45	Discussion/Conclusions	

Sustainable Land-Use Systems to foster simultaneously climate change mitigation, forest conservation, and Colombian peacebuilding goals (S-28)

Room: Secretaría

Time	Presentation	
14:00	Introduction	
14:15	Measuring the contribution of Sustainable Land Use Systems (SLUS) to Climate mitigation and Peacebuilding Hector Morales Munoz* and Lisset Perez	40 📖
14:30	Assessing contributions to land-based climate action and peacebuilding from interventions in sustainable agriculture in conflict affected areas Lisset Perez*	439 ☺
14:45	Best management practices in Sustainable land-use systems to reduce GHG emission of cocoa cropping production in Colombia Miguel Romero Sanchez*, Marcela Quintero, Augusto Castro-Nunez and Marcos Lana	598 ☺
15:00	A rapid approach for informing the prioritization of degraded agricultural lands for ecological recovery: A case study for Colombia Janelle Sylvester*, Jefferson Valencia, Louis Verchot, Ngonidzashe Chirinda, Miguel Romero Sanchez and Augusto Castro-Nunez	149 ☺
15:15	The cocoa sustainable business model for fostering climate change mitigation and peacebuilding in Colombia Martha Del Rio Duque*, Michelle Bonatti, Leidy Rodríguez Torres, Martha Vaengas Cubillos, Augusto Castro-Nunez and Stefan Sieber	451 📖
15:30	Exploring the linkages between sustainable land-use systems and knowledge networks: the case of cacao agroforestry systems in two Colombian regions Leidy Rodríguez Torres*, Michelle Bonatti, Martha Del Rio Duque, Katharina Löhr, Augusto Castro-Nunez and Stefan Sieber	581 📖
15:45	Discussion/Conclusions	

Oral Sessions

-9:00 to 10:00 hrs-

Seed Dispersal, Seed Banks Recruitment III

Room: Arsenal

Time	Presentation	
9:00	Key biotic-abiotic processes explaining seed bank dynamics in riparian vegetation of tropical dry forests Elisabet Wehncke* and Nestor Mariano	102 ☺
9:15	Effect of seed gut passage of birds and bats on seed germination and seedling emergence in deforested bracken-dominated areas Valeria Rojas, Cesar Mayta and Silvia Gallegos*	920 ☺
9:30	Frugivory and seed dispersal in the Cerrado: network structure and defaunation effects Rodrigo Bello Carvalho*, Yadvinder Malhi and Imma Oliveras Menor	348 📖

Ecosystem Structure and Function III

Room: Barahona 1

Time	Presentation	
9:00	Logged tropical forests can have amplified and diverse ecosystem energetics Yadvinder Malhi*	282 ☺
9:15	Climatic drivers of productivity in tropical secondary forests Rodrigo Muñoz*, Lourens Poorter, Jorge Meave, Miguel Martinez-Ramos and Frans Bongers	293 ☺
9:30	Liana abundance and host-specificity in seasonally dry tropical forest in Costa Rica Jennifer Powers*, Justin Becknell, German Vargas G. and David Medvigy	312 ☺
9:45	Ancient fire legacy modified Amazon forest soil fertility Lidiany Carvalho*, Michael Bird, Oliver Phillips, Ben Hur Marimon Júnior, Carlos Quesada, Beatriz Marimon, Luiz Aragão and Ted Feldpausch	492 ☺

Agriculture, Forestry and Sustainable Alternatives III

Room: Barahona 2

Time	Presentation	
9:00	Cashew expansion in the tropics – a cause for conservation concern? Anushka Rege* and Janice Ser Huay Lee	67 ☺
9:15	Effects of trade destination on the environmental outcomes of the production of agricultural commodities Andrés Viña*, Ramon da Silva and Jianguo Liu	383 ☺
9:30	Tree planting as a conservation threat: assessing the pan-tropical expansion of tree plantations into drylands and protected areas Matthew Fagan*, Do-Hyung Kim, Wesley Settle, Lexie Ferry, Justin Drew, Haven Carlson, Joshua Slaughter, Joshua Schaferbien, Alexandra Tyukavina, Nancy Harris, Elizabeth Goldman and Elsa Ordway	478 ☺
9:45	Timber production and revenue from secondary cloud forest: a case study from Mexico Tarin Toledo Aceves*, Sven Günter, Manuel Guariguata, Martín García Díaz and Eliza Zhunusova	721 📖

Conservation Planning, Management, Practice: Plants & Ecosystems III

Room: Barahona 3

Time	Presentation	
9:00	Introduced goats negatively affect the Caatinga dry forest at multiple levels of ecological organization Inara Leal*, Lays Lins, David dos Santos, Tatiane Menezes, Rainer Wirth and Marcelo Tabarelli	176 ☺
9:15	Tropical dry forests: Natural history, relevance and perspectives Marcelo Tabarelli*, Bruno Filgueiras, Elaine Ribeiro, Ariadna Lopes and Inara Leal	178 ☺
9:30	Two new and endangered leafless Vanilla species from eastern Madagascar with a focus on associated conservation issues Cathucia Andriamihaja*, Michel Grisoni, Aro Vonjy Ramarosandratana, Vololoniaina Jeannoda and Pascale Besse	197 ☺
9:45	Bridging the gap between users and producers to develop essential biodiversity variables in the Tropical Andes region Jose Valdez*	215 ☺

Climate Change: Impacts and Solutions II

Room: Barahona 4

Time	Presentation	
9:00	World Heritage forests: Carbon sinks under continuing pressure David Gibbs*, Tales Carvalho Resende, Elena Osipova and Nancy Harris	336 ☺
9:15	Spatial patterns of CH₄ and CO₂ peat soil emissions from different vegetation types in the colombian Amazon Deicy Alarcon Prado* and Juan Benavides	372 ☺
9:30	Unraveling the influence of Climate Change in the largest cushion peatland in the Colombian Andes (Colombia) Violeta Martinez-Amigo*, Juan Benavides, Simon Moreno and Nicolás Patrick	475 ☺
9:45	What is the future of Páramos in a warmer world? Insight from a warming experiment using Open Top Chambers Eloisa Lasso*	441 ☺

Soil Ecology I

Room: 201

Time	Presentation	
9:00	Drought decreases the prevalence of root-associated mutualists in tropical dry forest tree seedling Camila Pizano* and Scott Mangan	96 ☺
9:15	Root fungal communities reflect host phylogeny and differ among adults and seedlings in a Neotropical forest Laura Aldrich-Wolfe*, Leah Farmer, Elizabeth Sternhagen, Efrain Escudero, Jake Schumacher and Marissa Spear	642 ☺
9:30	Stressful conditions alter the resistance and resilience of soil microbial communities in Colombian high mountains ecosystem soils Camilo Quiroga-Gonzalez*, Jose Sandoval-Sierra, Yuliana Castañeda-Molina, Mailyn Gonzalez, Alejandro Salazar, Sara Moeskjær, Tim Daniell and Duncan Cameron	822 ☺
9:45	Contrasting patterns of soil biodiversity along an elevational gradient Paola Montoya*, Eduardo Tovar, Paola Pulido-Santacruz and Mailyn Gonzalez	914 ☺

Eco-physiology I

Room: 302

Time	Presentation	
9:00	Drought mortality is determined by topography and embolism vulnerability of tropical trees Edher Cordoba*, Rafael Oliveira, Lourens Poorter and Flavia Costa	246 ☺
9:15	Good days, bad days: weather as a driver of bryophyte carbon-exchange dynamics in tropical rainforest canopies Monica Bibiana Berdugo Moreno*, Nada Nikolic, Louise Guérot, Sarah Brach, Jörg Bendix, Gerhard Zotz and Maaïke Bader	292 ☺
9:30	Stem photosynthesis is common in Neotropical trees and lianas Eleinis Ávila-Lovera* and Klaus Winter	160 ☺
9:45	Nutrient use efficiency throughout a canopy light gradient of a terra firme forest in the Central Amazon Sabrina Garcia*, Juliane Menezes, Tomas Domingues, Bart Kruijt, Izabela Aleixo, Amanda Rayane Damasceno, Alacimar Guedes, Iokanam Sales Pereira, Flávia Santana, Bruno Portela, Katrin Fleischer, Thorsten Grams, Martin De Kauwe, Florian Hofhansl, Iain Hartley, Richard Norby, Anja Rammig, David Lapola and Carlos Quesada	554 📖

Community Assembly III

Room: 303

Time	Presentation	
9:00	Analyses of three-dimensional species associations reveal departures from neutrality in a tropical forest Jenny Zambrano*, Gabriel Arellano, Nathan Swenson, Phillip Staniczenko, Jill Thompson and William Fagan	535 ☺
9:15	Using coexistence theory to test liana community coexistence in a 50-ha plot. David DeFelippis* and Stefan Schnitzer	662 ☺
9:30	Hydro-edaphic gradient shapes the local community assembly of trees in a neotropical forest Guillaume Salzet*, Méline Aubry-Kientz, Thomas Gaquiere, Marion Boisseaux, Stéphane Traissac, Eric Marcon and Sylvain Schmitt	744 📖

Invasive Species

Room: 304

Time	Presentation	
9:00	Climatic range shifts of Invasive woody legumes Maribel Vasquez*, Carlos Perez-Carmona and Aníbal Pauchard	519 ☺
9:15	Biodiversity increases resistance to invasion by exotic grasses in neotropical grasslands Guilherme Mazzochini*, Demétrius Lira Martins, Fernanda Barros, Ana Oliveira, Rafael Xavier, Mariana Furtado, Larissa Verona, Lucy Rowland and Rafael Oliveira	565 ☺
9:30	Marine introduced species in the Galapagos Marine Reserve – from ports to the natural environment Inti Keith*	88 ☺
9:45	Open to Invasion? Canopy cover determines fruit abundance and fruit removal of invasive Lantana camara in North India. Yukti Taneja*, Rohit Naniwadekar, Navendu Page and R Kumar	459 📖

Restoration Ecology: Plants, Animals Ecosystems III

Room: Secretaría

Time	Presentation	
9:00	Assessing mangrove restoration practices using ecological networks Darren Evans*	821 😊
9:15	Living with forest valuations: Impacts and lessons from 20+ years of government-led forest incentive programs in Guatemala Evan Patrick*	946 😊
9:30	Bee diversity as powerful information for conservation strategies in Colombia Catalina Gutiérrez-Chacón*	898 😊
9:45	The eco-evolutionary history of Madagascar presents unique challenges to tropical forest restoration Katherine Culbertson*, Timothy Treuer, Ariadna Mondragon-Botero, Tanjona Ramiadantsoa and J. Leighton Reid	652 📖

-16:30 to 17:30 hrs-

Ecosystem Structure and Function IV

Room: Barahona 1

Time	Presentation	
16:30	What are the primary sources of methane emissions in the Amazon? Luana Basso*, Luciana Gatti, Luciano Marani, Henrique Luis Cassol, Graciela Tejada, Caio Correia, Lucas Domingues, Stephane Crispim and Raiane Neves	705 ☺
16:45	Extreme droughts, fire and carbon uptake in tropical transitional forests of the Amazon Maria del Rosario Uribe*, Paulo Brando, Susan Trumbore, Divino Vicente Silvério, Leonardo Maracahipes-Santos and Antônio Carlos Silva	795 ☺
17:00	Impacts of lianas on forest biogeochemistry through their lives and afterlives Gbadamassi Dossa*, Hong-Lin Li, Bo Pan, Tial C. Ling, Douglas A. Schaefer, Mareike Roeder, Denis Njorge, Juan Zuo, Liang Song, Bismark Ofosu-Bamfo, Stefan Schnitzer, Rhett Harrison, Frans Bongers, Jiao-Lin Zhang, Kun-Fang Cao, Jennifer Powers, Ze-Xin Fan, Ya-Jun Chen, Richard Corlett, Gerhard Zotz and Johannes H. C. Cornelissen	813 ☞
17:15	The contribution of terrestrial crabs (Sesarmidae) on organic carbon sedimentation in mangrove ecosystems Anupa Sudharaka Kiringoda Gamage, Apsara Rupasinghe, Manupa Wickramasinghe, K.G. Dinelka Thilakarathne*, W.G. Dilan Chathuranga, Tithira Lakkana, Sampath Weerakoon and Sandun Bandara	735 ☞

Conservation Planning, Management, Practice: Plants & Ecosystems IV

Room: Barahona 3

Time	Presentation	
16:30	Jigsaw Puzzle in Local-lead Conservation of Endemic Plants in Waigeo Island, Raja Ampat, West Papua Yanuar Dwi Cahyo*, Sandi Sianturi, Muhammad Wahyu Hasibuan, Andhy Sayogo, Maurits Kafiari, Irma Herwanti, Rivaldo Patty and Arief Hamidi	388 ☺
16:45	Communal conservation practices and the dialogue with conservation scientists: a case study from Colombia Ana Aldana*, Mateo Vasquez and Diana Bocarejo	409 ☺
17:00	Boosting conservation in Colombia through the study and prioritization of its useful flora: a case study in three biodiverse areas Mateo Fernández Lucero*, Tatiana Rojas Rueda, Daniela Perdomo, Mónica Flórez, David Sanín, Laura Vargas, Tiziana Ulian, Mauricio Diazgranados and Amalia Diaz	447 ☺
17:15	Agroforest as a tool for species conservation in the Neotropics Carlos Grelle*, Fernanda Gomes and Marcelo Weber	403 ☺

Climate Change: Impacts and Solutions III

Room: Barahona 4

Time	Presentation	
16:30	Migration in the times of uncertainty Harman Jaggi*, Shripad Tuljapurkar and David Steinsaltz	501 ☺
16:45	The biogeochemical consequences of warming tropical forests Sasha Reed*, Tana Wood, Molly Cavaleri, Robin Reibold, Kelsey Carter, Aura Alonso-Rodríguez, Megan Berberich, Daniela Yaffar, Richard Norby, Stephanie Roe, Iana Grullón-Penkova, William Mejia, Nicole Gutierrez, Isabel Loza, Rob Tunison and Bénédicte Bachelot	523 ☺
17:00	Integrating biodiversity in a national integrated assessment model Ana Carolina Oliveira Fiorini*	561 ☺
17:15	Reduced soil respiration in response to 2 years of warming Jessica Murray*, Bonnie Waring, Marcial Garbanzo, Roberto Cordero Solórzano and Andrea Vincent	101 ☺

Socio-ecological Systems, Resilience, Sustainable Development III

Room: Getsemaní

Time	Presentation	
16:30	The western perspective of Nature and the hurdles of conservation Renata Pardini* and João Pedro Mesquita	78 ☺
16:45	The biocultural conservation of epiphytic orchids in Oaxaca, Mexico: Experimental reintroduction of <i>Prosthechea karwinskii</i> after ceremonial utilization Julia Douglas*	937 ☺
17:00	The Jungle Book revisited: Combining art and storytelling for impactful conservation science communication Arjun Srivathsa*	47 🖥
17:15	Quantifying resilience of socio-ecological systems through dynamic Bayesian networks: An application to high Andean Ecosystems in Colombia Felipe Gaviria*, Monica Amador, Charlotte Durden, Naomi Millner and Dunia Urrego	158 🖥

Soil Ecology II

Room: 201

Time	Presentation	
16:30	Non-Rhizobia partners in Neotropical legume nodules are associated with higher rates of nitrogen fixation Lindsay McCulloch*, Bianca Brown and Stephen Porder	374 ☺
16:45	Root traits and soil characteristics provide predictive relationships with root phosphatase activity in the Luquillo Experimental Forest, Puerto Rico Richard Norby*, Kristine Cabugao and Daniela Yaffar	509 ☺
17:00	Biological soil crusts favour nucleation-driven regeneration by water redistribution in a human-disturbed tropical dry forest Michelle Szyja*, Marcelo Tabarelli, Inara Leal, Vincent Felde, Sara Lückel, Burkhard Büdel and Rainer Wirth	783 ☺
17:15	Microbial community response is decoupled from increased respiration in warmed tropical forest soil Andrew Nottingham*	752 ☺

Eco-physiology II

Room: 302

Time	Presentation	
16:30	Trait coordination at leaf level explains the resistance to excess light stress in shade-tolerant tropical tree species Lucas Cifuentes* and Flavio Moreno	27 ☺
16:45	Temporal changes in tree physiology, functioning and growth in two neotropical genera along a seasonally dry tropical forest gradient. José Roberto Aragão, Manolo Quintilhan, Daigard Ortega Rodriguez, Bruno Cintra, Francisca Araújo, Mario Tomazello-Filho, Pieter Zuidema and Peter Groenendijk*	113 ☺
17:00	Temperature increases may constrain photosynthesis and growth of dominant Amazonian tree species Maquella Garcia*, Flavia Costa, Rafael Oliveira, Loren Albert and Tomas Domingues	644 ☺
17:15	Rates of environmental change influence the capacity for phenotypic and molecular adjustments in tropical ectotherms Juan Gaitán-Espitia*	237 ☺

Community Assembly IV

Room: 303

Time	Presentation	
16:30	Biotic and abiotic factors regulate multiple aspects of grassland biodiversity in the Andean humid puna of Bolivia Ana Patricia Sandoval*, Yann Hautier, Merel Soons, Marijke van Kuijk and Pita Verweij	435 ☺
16:45	Living in aggregation in the North-Western Amazon: how plants evade the Conspecific Negative Density Dependence (CNDD) effects Rafael Cárdenas*	784 ☺
17:00	Long-term dynamics of tropical old-growth rainforests reveal thinning processes in tree communities associated with soil properties, disturbance, and species diversity Miguel Martínez-Ramos*, Jorge Rodríguez-Velázquez and Christina Siebe	931 ☺
17:15	Habitat niche partitioning of understory herbaceous plants in a lowland tropical rain forest Simon Queenborough*, Pablo Alvía and Renato Valencia	957 ☺

Restoration Ecology: Plants, Animals & Ecosystems IV

Room: 304

Time	Presentation	
16:30	Finding new restoration opportunities in sugarcane plantation landscapes Giulio Santoro*, Paulo Molin and Pedro Brancalion	334 ☺
16:45	Hydraulic conductivity in tropical secondary forests: the role of new forests in soil water infiltration José Fernandes Neto* and Pedro Brancalion	472 ☺
17:00	Understanding ecohydrological effects of tropical forest restoration in Atlantic Forest region Silvio Ferraz*, Carla Cassiano, Diana Pena, Katherine Vasquez, Matheus Ogasawara and Bruna Lopes	542 ☺
17:15	The challenges of Natural Climate Solutions: ecosystem diversity and ecological restoration in the Colombian Andes David Hernandez*, Violeta Martínez-Amigo and Juan Benavides	499 ☺

Restoration Ecology: Plants, Animals & Ecosystems V

Room: Secretaría

Time	Presentation	
16:30	Effects of forest restoration on recovery of avian habitat use in southern Costa Rica Francis Joyce*, Karen Holl, Rakan Zahawi and J. Leighton Reid	912 ☺
16:45	Community engaged research on forest restoration in eastern Madagascar Rebecca Montgomery*, J. Leighton Reid and D. Matthew Hill	967 ☺
17:00	An experimental test of Spatially-Patterned Tree Growing Approaches to Meet Ecological and Economic Tropical Forest Restoration Goals Jordan Karubian*, J. Leighton Reid, Rakan Zahawi, Lukew Browne, Fernando Castillo and Carlos Aulestia	991 ☺

Posters

All posters will be presented at the Claustro de la Ánimas of the CCC from 17:30 to 18:30 hrs.

[Section 1] Population, Community, or Landscape Ecology

Poster No.	Presentation	
1	A generalized plant-frugivore network involving Cactaceae and functionally diverse vertebrates in Brazilian Caatinga Virginia Paixao*, Vanessa Gomes and Eduardo Venticinque	430 ☺
2	Neotropical butterflies: an integrative approach to investigate diversity patterns Patricia Eyng Gueratto*, Maël Doré, Luiza de Moraes Magaldi, Karina Lucas da Silva-Brandão, Marianne Elias and André Freitas	510 ☺
3	Hydrologic controls on vegetation function and structure across nested scales in a neotropical savanna Caio Mattos*, Ying Fan, Marina Hirota, Amanda Petroni, Rafael Xavier, Julliene Silva, Mateus Silva, Monique Bohora Schlickmann, Mariana Furtado, Caio Menegucci, Deliane Penha, Maria Oliveira-Alves, Larissa Verona, Carlota Kneip Puliti, Fernanda Barros and Rafael Oliveira	514 ☺
4	The birds of the moorland Campanario, in Calarca, Quindío Colombia Albert Ospina, Jean Parra, Larri Álvarez Rodas*, Marly Grajales Amorocho and Mara Piedrahita	541 ☺
5	Gain of habitat-generalist birds does not compensate for loss of forest-dependent birds across a gradient of forest cover Paulo Siqueira*, Andrea Boesing, Pedro Da Silva, Tiago Fernandes, Pietro Kiyoshi Maruyama and Frederico Neves	543 ☺
6	The cerrado flowering duration are being affected by the climate? Amanda Martins*, Patricia Morellato and Priscilla Loiola	553 ☺
7	Assessing linear vs. non-linear effects of landscape forest loss across tree ontogenetic stages and regions with different deforestation level Marisela Martínez-Ruiz*, Victor Arroyo-Rodriguez, Miriam San Jose, Ricard Arasa-Gisbert and Manuel Hernández-Ruedas	560 ☺
8	Pollinator network on the highlands of the Colombian Andean Region: A case study in the páramo of Matarredonda Laura Manrique Garzón*, Emilio Realpe Rebolledo and Eloisa Lasso	569 ☺
9	Phylogenetic structure of coastal plain forest and lower montane forest tree communities in Brazilian Atlantic Forest Luisa Truffi de Oliveira Costa*, Adriana Martini and Alexandre Oliveira	585 ☺
10	Natural regeneration patterns of the tropical dry forest in successional forests of the Magdalena river valley Daniel Garcia-Villalobos*, Ana Belén Hurtado-M, Andrés Avella, Maria-Natalia Umana, Rene López-Camacho, Alvaro Idarraga-Piedrahita, Marcia Carolina Muñoz and Natalia Norden	586 ☺
11	Habitat edges affect tree diversity more than biomass regeneration in a wet tropical forest Nicholas Medina*	603 ☺

12	Chlorophyll and stomatal traits of tropical dry forest species: are they coupled to the leaf economic spectrum and hydraulic trade-offs? María Cuervo*, Edwin Rodríguez, Fagua Alvarez, Fabián Garzón Ramos, Roy Gonzalez-M., Luz Melgarejo, Laura Salinas and Beatriz Salgado-Negret	624 ☺
13	A Dispersal Trait-Based Approach for Understanding Limitations In Secondary Succession Nathalia Perez Cardenas*, Francisco Mora, Horacio Paz and Jorge Cortés-Flores	621 ☺
14	Dynamics of the early-stage plant community in a secondary tropical dry forest of the Colombian Caribbean Orlando Escobar*, Viviana Londoño-Lemos and Santiago Madriñán	387 ☺
15	Hornbill population status outside protected areas in the northern Western Ghats, India Vishal Sadekar* and Pooja Pawar	550 ☺
16	Signs of urban evolution in a Chagas disease vector: Morpho-functional traits co-variation along a nature-urban gradient Carlos Ibarra-Cerdeña* and Ana Montes de Oca-Aguilar	566 ☺
17	Diet and seed dispersal by oilbirds (<i>Steatornis caripensis</i>) in the Southern Andes of Colombia Pablo Stevenson*, Sasha Cárdenas and Laura Cardona	655 ☺

[Section 2] Ecosystem Function, Ecosystem Services

Poster No.	Presentation	
18	The effect of root traits of woody species on soil conditions in a tropical dry forest in recovery Juan Benavides-Tocarruncho*, Rosa Arrieta Gonzalez, Horacio Paz, Nelly Rodríguez Eraso and Beatriz Salgado-Negret	575 ☺
19	Xylem anatomical traits and their relation to measures of hydraulic safety in a neotropical rainforest Sam Farrar*, Chris Smith-Martin, Maria Uriarte, Kasia Ziemska, Silvia Bibbo and Bob Muscarella	613 ☺
20	Geodiversity in Colombian Paramos and Its Relationship to Biodiversity Patterns Laura Hederich*, Andrea Paz, Natalia Pardo and Catalina Gonzalez	658 ☺
21	Habitat dynamics of plant communities typical of the Colombian – South American Eastern Andes Omar Melo*, Karen López Manzanares and Tatiana Montañéz Rodríguez	800 ☺
22	Functional traits predict leaf-litter decomposition along a successional gradient in High Andean Tropical Forests at early stages of decay Dennis Castillo-Figueroa*, Juan Posada and Brayan Polanía	815 ☺
23	Soil respiration and litter decomposition rates between Andean forests at different aging stages Catalina Franco*, Beatriz Salgado-Negret and Alejandro Salazar	806 ☺
24	Seed germination of a mirmechocorous plant endemic of the Brazilian semiarid region: the wolf is not so bad Marcilio Fagundes*, Ana Paula Fernandes Silva, Bruno Mayrink, Luiz Arymura, Alessandre Jorge and Ingrid Lara Gomes	773 ☺
25	Functional responses of species of the genus <i>Zamia</i> due to anthropic disturbances in the biogeographic Chocó, Colombia Karen López Manzanares*, Tatiana Montañéz Rodríguez and Omar Melo	802 ☺

[Section 3] Environmental Change (Global/Local)

Poster No.	Presentation	
26	Global patterns of net primary production change and species richness change in the Anthropocene Shuyu Deng*, Colin Beale, Philip Platts and Chris Thomas	82 ☺
27	Comparison between a native forest and vegetation introduced regarding plant diversity and soil quality Alejandra Solórzano-Flores* and Paulina Guarderas	230 ☺
28	Effects of elevated CO₂ and phosphorus availability on productivity of <i>Inga edulis</i> seedlings in the understory of an Amazon forest	300 ☺

	Gabriela Neves*, Vanessa Ferrer, Sabrina Garcia, Vinícius de Souza, Tomas Domingues, izabela aleixo, Henrique Tozzi, Pedro Pequeno, Nathielly Martins, Iokanam Sales Pereira, Alacimar Guedes, Juliane Menezes, Amanda Rayane Damasceno, Laynara Lugli, Flávia Santana, Luciana Bachega, Yago Santos, Anna Carolina Moraes, Ana Caroline Miron, Rebeca Oliveira, Maria Pires, Maria Alessandra Peixoto, Pamella Leite, Maquella Garcia, Bruno Portela, Bart Kruijt, Lucia Fuchslueger, Florian Hofhansl, Katrin Fleischer, Thorsten Grams, Martin De Kauwe, David Lapola, Iain Hartley, Anja Rammig, Richard Norby and Carlos Quesada	
29	Relationships between landscape-level conservation and vegetation persistence in East Africa: A remote-sensing perspective Ryan Good*, Leandra Merz, Carly Muir, Reza Khatami and Jane Southworth	352 ☺
30	Phosphorus limitation and fine root presence effects on wood debris decomposition in a tropical rainforest in Central Amazon Nathielly Martins*, Oscar Valverde-Barrantes, Lucia Fuchslueger, Laynara Lugli, Florian Hofhansl and Carlos Quesada	418 ☺
31	Hotter summers and dryer winters are slowing the growth of the subtropical pine, <i>Pinus elliotti</i> Lauren Coombs*, Manuel Bernal and Kenneth Feeley	440 ☺
32	Tropical dendrochronology: an analysis of achievements and a path forward Peter Groenendijk*, Flurin Babst, Ze-xin Fan, Daniela Granato-Souza, Giuliano Locosselli, Mulugeta Mokria, Shankar Panthi, Nathsuda Pumijumnong, Valerie Trouet, Pieter Zuidema and Collaborators of the Tropical Tree-ring Network NA	909 ☺
33	Phenotypic variation of <i>Guzmania triangularis</i> functional traits along precipitation and elevation gradients in the Colombian cloud forests Catalina Orejuela*, Catalina Gonzalez and Adolfo Amézquita	442 ☺
34	Holocene fire, vegetation change, and ecological novelty in the high Colombian Cordillera Oriental Ismael Espinoza*, Felipe Gaviria, Ivonne Castañeda, Alex Room, Juan Berrío, Dolors Armenteras and Dunia Urrego	76 ☺

[Section 4] Conservation, Restoration

Poster No.	Presentation	
35	Rapid assessment of the distribution and population characteristics of <i>Eulemur mongoz</i> and its congener, <i>E. fulvus</i> across northwestern Madagascar Fernando Mercado Malabet*, Jean Claude Razafimahaimodison, Finaritra Randimbiarison and Shawn Lehman	471 ☺
36	Diversity and endemism of the Brazil nut family Lecythidaceae in Colombia Diana Marcela Medellín-Zabala* and Christopher Dick	532 ☺
37	Caloric supply of fruits associated with the most representative flora species of the moorland “El Campanario”, Calarcá, Quindío, Colombia Marly Grajales Amorocho*, Larri Álvarez Rodas, Mara Piedrahita, Albert Ospina, Jean Parra and Carlos Agudelo Henao	631 ☺
38	Viability and germination of <i>Vochysia duquei</i> Pilg as a conservation strategy in the departament of Quindío Juan Arroyave Zuluaga* and Andres Felipe Orozco Cardona	634 ☺
39	Comparing mosquitos and carrion flies to survey mammals in a semi-controlled area using iDNA and metabarcoding Bruno Saranholi, Karen Rodriguez-Castro*, Carolina Carvalho, Samira Chahad-Ehlers, Carla Gestich, Sônia Andrade, Patricia Freitas and Pedro Galetti	533 ☺
40	Taxonomic agreement and inventory completeness of bird species at the Great Escarpments of Angola and Namibia Javier Martinez Arribas*, Fernanda Martins, Juliana Stropp and Richard Ladle	473 ☺
41	Contributions of urban linear green infrastructure to the maintenance and use of habitat of bird communities in a neotropical city Mónica Novoa Salamanca*	671 ☺

[Section 5] Socio-ecological Dimensions, Resilience, Sustainable Development

Poster No.	Presentation	
42	Traditional and potential uses of Biodiversity in Northwest Antioquia (Colombia): bioactive substances and their therapeutic application Marcela Serna*, Mahmood Sasa, Alvaro Cogollo, Fabian Bonilla, Felipe Triana, Diver Mayo and Jeisson Gómez-Robles	486 ☺

Virtual Posters

Poster No.	Presentation	
43	The Contradictory Role of Education for Landowner Forest Preferences' near Two Protected Areas in Southern India Dincy Mariyam*, Sumeet Gulati and Krithi Karanth	200 🖨
44	Historical Effective Population Size of the Endangered Malayan Tapir: Implications for Conservation Qi Luan Lim*, Norsyamimi Rosli and Miho Murayama	443 🖨
45	Timber harvesting adds economic and ecological value to secondary forests of the Brazilian Atlantic coast Daisy Zambiasi*, Marielos Peña-Claros, Daniel Piotto, Alexandre Siminski, Geferson Piazza and Alfredo Fantini	462 🖨
46	Short-term responses of the understory plant community to elevated CO₂ in the central Amazon forest Izabela Aleixo*, Sabrina Garcia, Amanda Rayane Damasceno, Juliane Menezes, Iokanam Sales Pereira, Tomas Domingues, Bruno Portela, Gabriela Ushida, Julyane Pires, Flávia Santana, Alacimar Guedes, Katrin Fleischer, Bart Kruijt, Martin De Kauwe, Thorsten Grams, Iain Hartley, Anja Rammig, David Lapola, Richard Norby and Carlos Quesada	824 🖨
47	Logging and drought in Bornean rainforest Martin Svatek*	986 🖨

Social Events

Early Career Scientists Mixer ATBC

12:30 - 13:45 hrs (During the lunch break), Room: Secretaría

Join us for food, drinks, and games with other early career ATBC scientists from around the world. This casual event is a great opportunity to make new friends and catch up with old ones. We will have some ice-breakers set up to help us get to know each other and plenty of opportunities for networking and research discussions. This is also a great opportunity for you to share with the committee any ideas for how we can be most supportive in helping achieve your future goals. All career scientists attending the ATBC meeting in Cartagena are welcome to join! We look forward to seeing you there!

Making science in tropical biology and conservation more inclusive and accessible

12:30 - 13:45 hrs (During the lunch break), Room: 302

ATBC has a strong commitment to diversity, equity and inclusion. Through its Diversity, Equity and Inclusion (DEI) committee, the association works towards guaranteeing welcoming and safe spaces for all the members. However, this is a continuous and adaptive effort that relies on feedback from members. To create this space for exchanges and discussion among members, and importantly listening to different perspectives, the DEI committee will be hosting an Open Mic session. During this Open Mic session the DEI committee will provide a brief summary of the conclusions and inputs provided by members during last year's ATBC's Open Mic session, and Workplace Environment survey. We will then open the floor to hear perspectives and concerns from members in response to a series of guiding questions provided by the session organizing team. We will focus on providing a safe discussion space to improve inclusion and broaden participation across the association.

Christian Ziegler, photographic exhibition

18:30 - 19:35 hrs , Room: Getsemani

Christian Ziegler is a photojournalist Specializing in Natural History, Conservation and Science Stories Christian Ziegler is a photojournalist filmmaker specializing in natural history and science-related topics. Come and see his job!

xPrize Happy Hour

18:30 hrs , Mirador Gastrobar (Cra. 7, Cartagena de Indias)

An informal meeting of xPrize. Share an idea, become an active voice in our community or donate - each one of us has the power to make a difference. Every single day we're working to create a better world, a world of infinite possibilities. A more hopeful future for all. A world where everyone's days are spent imagining, creating, and collaborating, not fearing and fighting. A world where everyone has access to clean water, nutritious food, affordable housing, effective learning, top-tier medical care and non-polluting, abundant energy.

Come learn about the Cartagena Declaration and give us your feedback!

18:30-19:30 hrs, Room: Arsenal

The ATBC Conservation Committee is pleased to invite all attendees to contribute to the Cartagena Declaration that will be read in the closing ceremony. The ATBC Declarations seek to influence specific conservation issues and focus on topics relevant to the host country or the region of each of our annual meetings.

**Wednesday
July 13**

Plenary Sessions



Janzen-Connell beyond 50: Tropical plant-enemy interactions in a changing world

Keynote

8:00 hrs, Getsemaní

Speaker: Liza Comita

Speaker bio

Dr. Liza Comita is a Professor of Tropical Forest Ecology in the School of the Environment at Yale University (USA). She is also co-director of the Yale Center for Natural Carbon Capture and a Research Associate at the Smithsonian Tropical Research Institute (Panama). Dr. Comita earned a Bachelor's degree in Biology and Master's degree in Conservation Biology from the University of Pennsylvania and a PhD in Plant Biology from the University of Georgia. She was previously an assistant professor in the Department of Evolution, Ecology and Organismal Biology at The Ohio State University and held postdoctoral positions at the University of Minnesota, the Earth Institute at Columbia University, and the National Center for Ecological Analysis and Synthesis. Dr. Comita's research focuses on the ecology of tropical tree species and how spatial and temporal variation in survival at early life stages act to determine species diversity, abundance, and composition in tropical forests. Her current projects include studies on the role of pathogens in promoting tree species coexistence, as well as on the role of water availability and drought events in shaping current and future tree species' distributions in the tropics.

How should we respond to rising threats to environmental defenders and biodiversity?

Debate

16:30 hrs, Getsemaní

Moderator: Rhett Butler

ATBC Townhall

18:30 hrs, Getsemaní

This year's Townhall will focus on the ATBC Strategic Plan that is currently under development. This meeting will provide an excellent opportunity to contribute to the ATBC and its future activities. Your feedback and contributions are critical. Please join us and help shape the future of the Association!

Symposia



-10:20 a 12:20 hrs-

Conservation of Oak-Dominated Ecosystems in the Tropics: Opportunities and Challenges (S-29)

Room: Arsenal

Time	Presentation	
10:30	Introduction	
10:45	The oaks of Guatemala, current state of knowledge and implications for their conservation Maura Quezada*, Lourdes Rodas-Duarte and Andrea Marroquín-Tintí	706
11:00	Conservation genetics of two threatened Mexican oak species Antonio González-Rodríguez*, Silvia Alvarez-Clare, Maricela Rodríguez Acosta, Libny Lara De La Cruz, Goretty Mendoza Juárez, Michelle Xicotencatl Lozano, Allen Coombes and Jeannine Cavender-Bares	490
11:15	Opportunities and Challenges to preserve Montane Cloud Forest Ecosystems Hernando Rodríguez-Correa*, Ken Oyama, Silvia Alvarez-Clare, Sofía Zorrilla Azcué and Melissa Naranjo-Bravo	316
11:30	Phylogeography and functional biology of threatened and broadly distributed tropical and subtropical live oaks (<i>Quercus</i> section <i>Virentes</i>) Jeannine Cavender-Bares*, Antonio González-Rodríguez, Silvia Alvarez-Clare and Paul Gugger	962
11:45	Role of <i>Quercus</i> species in biogeochemical cycles in western Panama Cecilia Prada* and Jim Dalling	194
12:00	<i>Quercus brandegeei</i>: a transdisciplinary effort for its conservation and sustainable use Aurora Breceda*, Silvia Alvarez-Clare, Daniel Pérez-Morales, Antonio González-Rodríguez, Madeleine Fernandez Laris and Christie Klimas	718
12:15	Discussion/Conclusions	

Emerging approaches for biodiversity monitoring in tropical environments (S-31)

Room: Barahona 2

Time	Presentation	
10:30	Introduction	
10:45	Advances and prospects of eDNA in neotropical rainforests Lucie Zinger*, Julian Donald, Amaia Iribar-Pelozuelo, Jerome Muriene, Heidy Schimann and Jerome Chave	502
11:00	Soil eDNA reveals changes in biodiversity along ecological gradients in endangered tropical ecosystems Mailyn Gonzalez*, Henry Arenas-Castro, Julian Donald, Johan Pansu, Lucie Zinger, Elkin Tenorio, Amaia Iribar-Pelozuelo, Roy Gonzalez-M., Nathalie Baena-Bejarano, Heidy Schimann, Paola Montoya, Susana Rodríguez-Buritica, Natalia Norden and Jerome Chave	769
11:15	Advances in freshwater environmental DNA in Northern Amazonia promote the implementation of regional and multi-taxa ecological studies Opale Coutant*, Jerome Muriene and Sébastien Brosse	91
11:30	eDNA of frogs in aquatic and soil ecosystems Carla Lopes*, Délio Baêta, Juliane Monteiro, Mariana Lyra, Ariadne Sabbag, Thais Sasso, Agustín Vanzetti, Marcus Santos, Anthony Chariton, Kelly Zamudio and Célio Haddad	157
11:45	Wanted not, wasted not: Searching for non-target taxa in environmental DNA metabarcoding by-catch Camila Duarte Ritter*	15
12:00	Advances in near-range sensing in tropical biodiversity monitoring Jerome Chave*	163
12:15	Discussion/Conclusions	

Emerging uses of large-scale remote sensing in tropical forest monitoring (S-23)

Room: 302

Time	Presentation	
10:30	Introduction	
10:45	Applications of airborne LiDAR and RGB imagery to track the impacts of climate change on forests David Coomes*, Jonathan Williams, Tom Swinfield and Elva Gemita	874
11:00	Detecting Infrastructure Growth Through High Cadence Satellite Imagery Justin Davis*	335
11:15	Project AMAZECO: Covering the Amazon with an Ecosystem Structure Essential Biodiversity Variables (EBV) product combining satellite and airborne LIDAR Ruben Valbuena*, Danilo Almeida, Mauro Assis, Caio Hamamura, Carine Klaubert, Eric Gorgens, Jean Ometto, Michael Keller and Carlos Silva	584
11:30	Novel approaches to the assessment of forest biodiversity status through the use of remote sensed products Samantha Hill, Andy Arnell*, Lera Miles and Susana Baena	407
11:45	Tropical forest carbon dynamics in the 21st century Sassan Saatchi*	684
12:00	Landsat Data Archive: Global Applications for Natural Resource Management and Conservation Peter Potapov*, Svetlana Turubanova, Matthew Hansen, Amy Pickens, Alexandra Tyukavina, Viviana Zalles, Xinyuan Li, Ahmad Khan and Andres Hernandez-Serna	59
12:15	Discussion/Conclusions	

Long-term climate effects on interannual variation in tropical forest reproduction: a global perspective. (S-16)

Room: 303

Time	Presentation	
10:30	Introduction	
10:45	Proximate cues of flowering in a subtropical rain forest Chia-Hao Chang-Yang*, Po-Hui Chiang, Chang-Fu Hsieh and I-Fang Sun	437
11:00	The proximate cues for flowering in a tropical moist forest S Joseph Wright*, Osvaldo Calderon and Helene Muller-Landau	384
11:15	Flowering phenology in a lowland mixed dipterocarp forest Yu-Yun Chen*, I-Fang Sun, Matteo Detto, Stephen Hubbell, Tze Leong Yao and S Joseph Wright	640
11:30	Inter-annual changes in plant phenology in a tropical ever-wet forest community of Western Amazonia Jason Vleminckx*, J. Aaron Hogan, Nancy Garwood, Margaret Metz, Renato Valencia, S Joseph Wright, Simon Queenborough and Liza Comita	327
11:45	Discussion/Conclusions	

Integrating seed dispersal and forest restoration; from animal movement to species interactions (S-27)

Room: 304

Time	Presentation	
10:30	Introduction	
10:45	The contribution of frugivores to forest restoration in fragmented tropical landscapes Carolina Bello*, Danielle Ramos, Teresa Lopez, Tom Crowther and Daisy Dent	243
11:00	Habitat use and seed dispersal effectiveness by oilbirds (<i>Steatornis caripensis</i>) in the southern Andes of Colombia Sasha Cárdenas*, Laura Cardona, Maria Echeverry-Galvis and Pablo Stevenson	730
11:15	Impact of habitat loss on frugivore assemblages and seed dispersal process in human-modified landscapes of Atlantic forest Eliana Cazetta*, Paulo Guimarães Jr., Fernando Bonfim and Elaine Rios	848
11:30	Seed dispersal by animals recovers quickly during passive restoration Sergio Estrada Villegas*, Pablo Stevenson, Omar R. Lopez, Saara DeWalt, Liza Comita and Daisy Dent	467
11:45	Frugivore composition influences seedling community composition and the trajectory of forest regeneration Haldre Rogers* and Evan Fricke	779
12:00	Restoration of plant-animal interactions in terrestrial ecosystems Luisa Genes* and Rodolfo Dirzo	317
12:15	Discussion/Conclusions	

Oral Sessions



-9:00 to 10:00 hrs-

Defaunation/Refaunation I

Room: Arsenal

Time	Presentation	
9:00	Direct and cascading effects of forest loss on tropical arboreal mammals and vegetation structure Sabine Cudney-Valenzuela*, Victor Arroyo-Rodriguez, José Morante-Filho, Ellen Andresen and Tarin Toledo Aceves	12 ☺
9:15	Megaafauna extinctions produce idiosyncratic assemblages in Southeast Asia Zachary Amir*, Matthew Luskin and Pablo Negret	54 ☺
9:30	Long-term declines in bird populations in tropical agricultural countryside Cagan Sekercioglu*	123 ☺
9:45	The timing and ecological consequences of Pleistocene megafauna collapse in the eastern Andes of Colombia Felix Pym*, Felipe Gaviria, Ismael Espinoza and Dunia Urrego	109 📖

Agriculture, Forestry and Sustainable Alternatives IV

Room: Barahona 1

Time	Presentation	
9:00	Sharing land with giants: habitat preferences of Galapagos tortoises on farms Kyana Pike*, Stephen Blake, Iain Gordon, Freddy Cabrera, Ainoa Nieto Claudin, Sharon , Anne Guezou and Lin Schwarzkopf	30 ☺
9:15	Habitat preferences and space use by Blackpoll Warblers in agroforestry systems in Colombia Andrea Morales Roza*, Keith Hobson, Nicholas Bayly, Phil Taylor and Gabriel Colorado	803 ☺
9:30	Conserving Colombia's Agrobiodiversity: the Case of Wild Cacao Carlos Gonzalez-Orozco*	990 ☺

Ecosystem Structure and Function V

Room: Barahona 2

Time	Presentation	
9:00	Land cover change data & carbon dynamics in the southeast Amazon Graciela Tejada*, Luciana Gatti, Luana Basso, Henrique Luis Cassol, Luciano Marani, Raiane Neves, Lucas Domingues, Caio Correia and Stephane Crispim	747 ☺
9:15	Tree rings in Pinus spp. may shed light into intra-annual variation of climatic conditions in the Sierra de Las Minas Francisco Díaz-Collado* and Carla Restrepo	868 ☺
9:30	Influence of soils on aboveground biomass in areas degraded by mining in Chocó biogeographic Harley Quinto Mosquera*, Jhon Jerley Torres Torres and Mayira Guerrero Machado	610 ☺
9:45	Responses of tropical tree seedlings to nutrient addition: a meta-analysis to understand future changes in ecosystem dynamics Daisy Cárate Tandalla*, Juergen Homeier and Péter Batáry	775 ☞

Habitat Structure, Fragmentation, Connectivity I

Room: Barahona 3

Time	Presentation	
9:00	Weak edge effects on trees in Bornean rainforest remnants bordering oil palm Jake Anderson*, Colin McClean, Sarah Sim, Nathalie Pettoelli, Ahmad Jelling, Joseph Tangah and Jane Hill	110 ☺
9:15	Global vs national: How well global forest integrity products represent habitat conservation in Colombia Luis Romero-Jiménez*, Susana Rodríguez-Buritica, Andrés Suarez-Castro, Hedley Grantham, Adam Duncan, Tom Evans, Elkin Noguera-Urbano, Camilo Correa-Ayram, Jaime Burbano-Girón, Bibiana Gómez-Valencia and Jose Ochoa-Quintero	288 ☺
9:30	Using the Species Habitat Index to measure progress towards Goal-A of the post-2020 GBF at a country level for Colombia Maria Arce Plata*, Guillaume Larocque, Juan Zuloaga Villamizar, Sarah Valentin, Maria Diaz Corzo, Jaime Burbano-Girón, Susana Rodríguez-Buritica, Natalia Norden and Timothée Poisot	564 ☺
9:45	Tracking detailed tree level dynamics of tropical forest landscapes using deep convolutional neural networks and multitemporal, multimodal remote sensing data sources James Ball*, Tobias Jackson, Grégoire Vincent, Nicolas Barbier and David Coomes	972 ()

Conservation Planning, Management, Practice: Plants & Ecosystems V

Room: Barahona 4

Time	Presentation	
9:00	The Andes-Amazon-Atlantic freshwater corridor: a globally-important pathway for tropical conservation Claire Beveridge*, Simone Athayde, Clinton Jenkins, Jhan Carlo Espinoza, Sebastian Heilpern, Renata Utsunomiya, Natalia Piland and Elizabeth Anderson	489 ☺
9:15	Successional stage classification of Atlantic Forest fragments based on field and remote sensing metrics Angelica Resende*, Danilo Almeida, Felipe Gavioli, PEDRO KRAINOVIC, Catherine Almeida, Matheus Fuza, Eben Broadbent, Paulo Molin, Ricardo Rodrigues, Thiago Silva, Vinícius Souza and Pedro Brancalion	516 ☺
9:30	Half-earth Mexico: An ecoregion scale analysis of costs and benefits Martha Bonilla-Moheno*, María Andrade-Núñez and T. Mitchell Aide	593 ☺
9:45	Uses, threats and conservation status of climbing plants in Colombia Merly Yened Carrillo-Fajardo*, María Eugenia Morales-Puentes and Jesús Ballesteros-Correa	570 ☺

Socio-ecological Systems, Resilience, Sustainable Development IV

Room: Getsemaní

Time	Presentation	
9:00	Anthropogenic tropical forests in global, multidisciplinary perspective: The Amazon, Asia, and Australia Victor Caetano Andrade*, Noel Amano, Alice Buhrich, Åsa Ferrier and Patrick Roberts	304 ☺
9:15	Threats to useful plants in Colombia in the light of local knowledge Laura Kor*, Mauricio Diazgranados and Terence London	410 ☺
9:30	Multiple knowledges: the diversity and socio-economic correlates of local knowledge on climate-related environmental changes in western Amazonia Livia Cruz*, Jéssica Souza, Mariana Estevo, Joao Campos-Silva and Andre Junqueira	423 ☺
9:45	Towards a relational understanding of Amazonian fish conservation LuLu Lacy*, Thiago Couto, Simone Athayde, Renata Utsunomiya, Claire Beveridge and Elizabeth Anderson	425 ☺

Soil Ecology III

Room: 201

Time	Presentation	
9:00	Vegetative stakes nuclei: alternative to restore soils eroded by extensive cattle ranching in Bello (Antioquia, Colombia). OF González* and Jaime Polanía	632 ☺
9:15	Effects of land-use change and disturbance on the fine root system at Mt. Kilimanjaro Natalia Sierra Cornejo*, Joscha Becker, Andreas Hemp and	878 ☺
9:30	Nutrient controls on soil archaeal and bacterial communities and soil trace gas fluxes in tropical montane forests of southern Ecuador Guntars Martinson*, Marife Corre and Edzo Veldkamp	811 🖥

Community Assembly V

Room: Room: 303

Time	Presentation	
9:00	Eco-evolutionary dynamics in tropical oceanic and sky islands Juliano Sarmiento Cabral*, Daniel Vedder, Robin Rölz, Luc Lens and Jan Engler	244 ☺
9:15	Evolution and Conservation of Rocky Grasslands in South America Cássia Bitencourt*, Barnaby Walker, Moabe Fernandes, Oscar Perez-Escobar, Rosie Clegg, Maira Martinez-Ugarteche, Matilda Brown, Justin Moat, Alexandre Antonelli, Félix Forest and Eimear Nic Lughadha	414 ☺
9:30	New Neotropical fossils and their role in understanding extant biodiversity Edwin Cadena*	889 ☺
9:45	Decoupling the climatic and geomorphological imprint on the patterns of phylogenetic turnover, nestedness and community assembly in Amazon tree communities Juan Guevara-Andino*	188 ☺

Restoration Ecology: Plants, Animals & Ecosystems VI

Room: Room: 304

Time	Presentation	
9:00	Listening for Change: Quantifying the Impact of Ecological Restoration on Soundscapes in a Dry Tropical Forest Pooja Choksi*, Mayuri Kotian, Siddharth Biniwale, Praver Mourya, Devendra Korche, Meghna Agarwala, Sarika Khanwilkar, Vijay Ramesh and Ruth Defries	56 ☺
9:15	Effects of landscape structure on restoration success in tropical premontane forest Miriam San Jose*, Leland Werden, Francis Joyce, John Reid, Karen Holl and Rakan Zahawi	77 ☺
9:30	Restoration interventions facilitate tropical tree recruitment dynamics over time Karen Holl*, Andy Kulikowski, Leland Werden and Rakan Zahawi	79 ☺
9:45	Native regeneration under tropical tree monocultures: A global synthesis Laura Simões*, Joannès Guillemot, Carlos Ronquim, Emanuela Wehmuth Alves Weidlich and Pedro Brancalion	86 ☺

Climate Change: Impacts and Solutions IV

Room: Secretaría

Time	Presentation	
9:00	Holocene fire in the Amazon Basin Yuwan Wang*, Ted Feldpausch, Encarnación Montoya Romo and Angela Gallego-Sala	577 ☺
9:15	Changing Fire Regime in the Amazon Ane Alencar*, Paulo Brando and Luiz Martenexen	651 ☺
9:30	Artificial water reduction causes population collapse of <i>Faramea anisocalyx</i> (Rubiaceae) in an ombrophilous forest in the Eastern Amazon Pia Parolin*, Leandro Ferreira, Marcilene da Silva Pinheiro, Arnold Patrick de Mesquita Maia, Vanessa Negrão Rodrigues, Antonio da Costa, Mario Augusto Gonçalves Jardim, João Junior, Patrick Meir, Lucy Rowland, Victor Thiago da Silva Lima and Denise de Andrade Cunha	686 ☺
9:45	How much could be the uncertainty of C-fire emissions over the Amazon forest? Henrique Luis Cassol* and Luana Basso	690 ☺

-10:30 to 12:30 hrs-

Agriculture, Forestry and Sustainable Alternatives V

Room: Barahona 1

Time	Presentation	
10:30	Socio-ecological production landscapes for biodiversity conservation and resilient rural development: The case of Las Cruces, San Vicente de Chucuri, Colombia Björn Reu*, Corina Buendia, Sergio Bolívar-Santamaría, Juan Aceros, Leidy Rodríguez Torres and Erika Garces	373 ☺
10:45	Potential native timber production in tropical forest restoration plantations Pedro Krainovic*, Carina Silva, Henrique Andrade, Catherine Almeida, Nino Amazonas, Angelica Resende, Danilo Almeida, Ricardo Rodrigues and Pedro Brancalion	405 ☺
11:00	Farmers' dilemma: Sell crops to improve income or consume them for better nutrition? Ivan Novotny* and Patrick O. Waeber	454 ☺
11:15	FiNCO farms for knowledge exchange: a Colombian seed for a good Anthropocene Corina Buendia*, Erika Garces and Juan Aceros	544 ☺
11:30	Are environmental and social justice goals mutually exclusive? Exploring inclusive businesses in Peru's cacao and coffee sectors Trent Blare*	571 ☺
11:45	Assessing resilience to global change: a case study of cocoa agroforestry in the Amazon of Colombia Victoria Guaqueta Solorzano and Silvia Alvarez*	879 ☺
12:00	Tree-ring anatomy and microdensity of tree species from the Central Selva of Peruvian Amazon: sustainable forest management and biodiversity conservation Mario Tomazello-Filho*, Janet Gaby Gullien, Leif Armando Portal Cahuana Portal Cahuana, Cassiana Ferreira, Benji, Danessa Clarita Aliaga, Sthefany Madjory Mateo, Walter Emilio Centeno, Raul Buendia, Osir Vidal, Thonny Behyker Centeno Utos Utos, Andres Velez and Jorge Giraldo	709 ☺
12:15	Diversity, biogeography and conservation-through-use of Colombian edible plants Benedetta Gori*, Tiziana Ulian, Henry Bernal and Mauricio Diazgranados	488 ☞

Functional Ecology: From Traits to Ecosystems I

Room: Barahona 3

Time	Presentation	
10:30	Leaf traits and endophytic function structure communities of foliar endophytic fungi in a tropical forest Sunshine Van Bael*, Peter Tellez, A. Arnold, Ashton Leo and Kaoru Kitajima	144 ☺
10:45	Leaf traits influence, and are influenced by, the fungal endophyte communities of tropical trees Mareli Sanchez-Julia*, A. Arnold and Sunshine Van Bael	189 ☺
11:00	Diverse trait strategies across growth forms in Ghanaian tropical wet and dry forests Tomonari Matsuo*, Lucy Amissah, Jonathan Dabo, Salim Mohammed, Masha van der Sande and Lourens Poorter	218 ☺
11:15	Context-dependent functional responses of Neotropical tree assemblages to forest loss and fragmentation Bruno Pinho*, Jos Barlow	233 ☺
11:30	Functional relationships of stem and twig wood in tropical tree species Gisele Biem Mori*, Jochen Schöngart, Juliana Schiatti, Florian Wittmann, Lourens Poorter, Michelle Robin and Maria Teresa Piedade	342 ☺
11:45	Using key seasonal dependent functional traits to explain plant coexistence Felipe Mello*, Eleinis Ávila-Lovera, Garcia Maria, Christine Scoffoni and Stefan Schnitzer	431 ☺

Conservation Planning, Management, Practice: Plants & Ecosystems VI

Room: Barahona 4

Time	Presentation	
10:30	Assessing human-nature relationships for transformative conservation - a new mixed tool to identify shared-ways of thinking among local actors Beatriz Araújo*, Renata Pardini and Nina Prado	232 ☺
10:45	Brazil inequalities in biodiversity research investment and the impacts for Amazon conservation Lis Stegmann*, Raquel Carvalho, Nelson Pinto, Filipe França and Joice Ferreira	790 ☺
11:00	Locating KBAs: An automated workflow for identifying potential Key Biodiversity Areas Daniela Linero Triana*	801 ☺
11:15	A binational rapid social and biological inventory of 2.7 million hectares of a massive conservation corridor in the Putumayo watershed Corine Vriesendorp*, Christopher Jarrett, Diana Alvira, Ana Lemos, Álvaro del Campo, Farah Carrasco, Debra Moskovits, Michelle Thompson, Douglas Stotz, Nigel Pitman, Lesley de Souza, Ana Rosa Saenz, Freddy Ferreyra, Alejandra Salazar, Elio Matapi, Rosa Reinoso, Alexander Alfonso, Hugo Carvajal, Madeleine Morales, Teofilo Torres, Jorge Flores, Valentina Cardona, Carolina Herrera, Margarita del Aguila, Claus García and Delio Mendoza	904 ☺
11:30	Impact evaluation in conservation programs in the tropics: approaches and tools German Forero-Medina*, Leonor Valenzuela, Victor Rincon and Pablo Negret	677 ☺
11:45	Community-based Participatory Design of Coastal-Marine Protected Areas in the Pacific Coast of Colombia Jorge Parra-Bastos*, Paola Mejia, Guisela Chaves, William Bonell and Diego Amariles	943 ☺
12:00	Piscilago: a model of sustainable tourism and conservation Sandra Sarmiento Patiño* and David Ossa	984 ☺

Socio-ecological Systems, Resilience, Sustainable Development V

Room: Getsemani

Time	Presentation	
10:30	Modeling Pangolin Poaching Opportunity in Zambia Leandra Merz* and Jessica Kahler	464 ☺
10:45	Traditional ecological knowledge and patterns of hunting in Vaupés, Colombia. Carlos Hernandez Vélez*, Elcy Corrales Roa and Sebastian Restrepo Calle	524 ☺
11:00	The importance of wild plant foods in the food security and dietary diversity of forest-edge communities in Southeastern Madagascar Maya Moore*, Mattie Alpaugh, Kimmerling Razafindrina, Amy Trubek and Meredith Niles	528 ☺
11:15	Disentangling the volcanic memory of plants through paleoecology and art Catalina Gonzalez*	605 ☺
11:30	Are indicators for social-ecological resilience promoting landscape adaptative management: A mountain social-ecological landscape study case (2017-2022) Erika Garces* and Corina Buendia	626 ☺
11:45	Conceptually organizing typologies of human-nature relationships Nina Prado* and Renata Pardini	444 ☞
12:00	Community-based Fish Sanctuaries: Untapped potential for freshwater fish conservation Suman Jumaní*	483 ☞

Defaunation/Refaunation II

Room: Secretaría

Time	Presentation	
10:30	The indirect effects of mammal defaunation on bird communities and ecosystem functioning Lucas Pavan* and Rodolfo Dirzo	152 ☺
10:45	Recolonization of secondary forests by locally extinct fauna through the lens of range expansion Miguel Acevedo* and Carly Fankhauser	322 ☺
11:00	Turnover-driven loss of forest-dependent species changes avian species richness, functional diversity, and community composition in Andean forest fragments Harrison Jones*	337 ☺
11:15	Recovery of vertebrate diversity during secondary forest succession in the tropics: A meta-analysis Orlando Acevedo-Charry*	549 ☺
11:30	Evolutionary consequences of a Caribbean anole recolonizing secondary forest Carly Fankhauser* and Miguel Acevedo	552 ☺
11:45	Non-native mammals are poor surrogates for extinct native frugivores Ann Marie Gowel* and Haldre Rogers	749 ☺
12:00	Impacts of lemur extinction: the loss of large-bodied generalist lemurs threatens plant communities Jadelys Tonos*, Bastien Papinot, Daniel Park, Mihajatiana Raelison, Herilantonirina Solotiana Ramaroson and Onja Razafindratsima	649 📖

-14:00 to 16:00 hrs-

Communities: Disturbance and Recovery

Room: Arsenal

Time	Presentation	
14:00	Effects of dams on riparian vegetation in the Amazon: cumulative impacts and linkages to hydrology Christine Swanson*, David Kaplan, Kok-Ben Toh, Elineide Marques and Stephanie Bohlman	63 ☺
14:15	Fruit-frugivore interactions mediated by human-disturbance in Amazonian forests Liana Rossi*, Carine Emer, Alexander Lees, Erika Berenguer, Jos Barlow, Joice Ferreira, Filipe Franca, Yan Ramos, Paulo Tavares and Marco Aurelio Pizo	107 ☺
14:30	Contrasting effects of increasing chronic anthropogenic disturbances and aridity on pollination of <i>Tacinga palmadora</i> (Cactaceae) in a Caatinga dry forest Diego Centeno-Alvarado*, Jéssica Silva, Oswaldo Cruz-Neto, Xavier Arnan and Ariadna Lopes	126 ☺
14:45	Canopy Disturbance Explains Long-Term Increases in Liana Abundance Stefan Schnitzer* and David DeFelippis	224 ☺
15:00	High sensitivity of tropical forest birds to deforestation at lower altitudes Simon Mills*, Samuel Socolar, Felicity Edwards, Edicson Parra-Sanchez, Diego Martinez-Revelo, Jose Ochoa-Quintero, Torbjørn Haugaasen, Rob Freckleton, Jos Barlow and David Edwards	767 ☺
15:15	Effect of fire regimes on tree species diversity and composition in miombo woodland Victorino Buramuge*, Natasha Ribeiro, Lennart Olsson, Romana Bandeira and Lisboa Lisboa	733 ☺
15:30	Different responses of avian community to chronic disturbance and vegetation structural complexity in a seasonally dry Neotropical forest Carlos Espinosa*, Adrián Orihuela and Andrea Jara	611 ☺
15:45	Divergent successional trajectories in mid-to-late successional tropical forest in Panama Alexander Elsy*, Marion Pfeifer, Isabel Jones, Saara DeWalt and Daisy Dent	536 🖨

Agriculture, Forestry and Sustainable Alternatives VI

Room: Barahona 1

Time	Presentation	
14:00	Delivering knowledge on useful plants and fungi to support conservation and sustainable development in Colombia Mauricio Diazgranados*, David Hammond, Tatiana Rojas Rueda, Camila Gutiérrez, Carolina Castellanos-Castro and Tiziana Ulian	620 ☺
14:15	Resilience to climate change in small scale food production systems: pacific and caribbean tropical islands Erika Salazar*	941 ☺
14:30	Long-term demography of <i>Guaicum sanctum</i> (Zygophyllaceae) in Southeast Mexico may help in defining ecological basis for sustainable timber harvesting Leonel Lopez-Toledo*, Miguel Martinez-Ramos and David Burslem	948 ☺
14:45	Maintaining Andean bear populations and improving productive practices of rural communities at the Western Range of Colombia German Forero-Medina, I. Vela-Vargas*, Maria Villegas and Luisa Rincón	987 ☺

Monitoring Biodiversity: Molecular Techniques

Room: Barahona 2

Time	Presentation	
14:00	iDNA in dung beetle guts for an improved understanding of dung beetle diets Karen Pedersen*	185 ☺
14:15	Biodiversity of eukaryotes in large tropical trees: the Life On Trees (LOT) program Maurice Laponce*, Yves Basset, Kim Calders, Jean-François Carrias, Cony Decock, Barbara D'hont, Damien Ertz, Gabriela A. Garcia Reynaga, Luis Ocupa Horna, Glenda Mendieta Leiva, Lea Mouton, Germinal Rouhan, Alain Vanderpoorten, Bryan Portuguese Yataco, Claire Villemant, Diana Silva Dávila, Victor Macedo Cuenca, Marcos Salas Guerrero, Guillermo Aguilar Rengifo, Juan Valles Sandoval, Wingler, Juan Octavio Pecho, Phil Butterill, André Heughebaert, Nabil Youdjou and Olivier Pascal	240 ☺
14:30	Richness, diversity and changes in the composition of marine vertebrate communities in Gulf of Tribugá, Colombia, based on eDNA analysis. Oscar Caicedo* and Susana Caballero	261 ☺
14:45	Challenges of monitoring vast and poorly characterised coastlines in Sub-Saharan Africa: an eDNA prospect Alfred Burian, Kat Bruce, Erica Tovela, Judith Bakker, Laura Balcells, Sarah Chordekar, Rhett Bennett, Hugo Costa, Alex Crampton-Platt, Hugo deBoer, Vere Ross-Gillespie, Jonathan Ready* and Quentin Mauvisseau	307 ☞
15:00	An Amazonian perspective on scaling advanced methods for biodiversity assessment Jonathan Ready* and Hugo deBoer	333 ☺
15:15	Specificity in environmental DNA surveys of fish communities in Amazonia Cintia Carvalho*, FABRICIO ROSA, Silvia Barreto, Anna Karolina Queiroz, Hugo deBoer, Quentin Mauvisseau and Jonathan Ready	349 ☺
15:30	Scaling DNA barcode generation of insects from Malaise traps in Colombia using MinION sequencer Nicolás Franco-Sierra*, Nathalie Baena-Bejarano, Eduardo Tovar, Mailyn Gonzalez and Paola Pulido-Santacruz	664 ☺

Functional Ecology: From Traits to Ecosystems II

Room: Barahona 3

Time	Presentation	
14:00	How do tropical tree species differences in water use at the neighbourhood scale shape growth response to climate? Daniela Krebber*, Claire Fortunel, Eric Marcon, Marion Boisseaux, Clément Stahl, Sabrina Coste, Auer Johanna, Elia Dardevet, Vinciane Badouard, Camille Ziegler, Sébastien Levionnois, Wolfgang Wanek, Peter Hietz, Mélaïne Aubry-Kientz and Geraldine Derroire	627 ☺
14:15	Functional and taxonomic variation along a hydrological gradient reveal multiple ecological strategies in neotropical grasslands Rafael Xavier*, Mariana Furtado, Bethina Stein, Larissa Verona, Carlota Kneip Puliti, Caio Mattos, Cassia Munhoz, Cassiano Welker and Rafael Oliveira	629 ☺
14:30	Expression of the functional traits and population dynamic of the frailejón <i>Espeletia hartwegiana</i> in the páramo complex Los Nevados, Tolima-Colombia. Angélica Ramírez*, Daniela Perez and Nhora Ospina-Calderón	661 ☺
14:45	Effects of fertilization and water reduction on vascular epiphyte functional traits Carrie Woods* and Catherine Cardelus	778 ☺
15:00	Multiscale factors drive functional composition and diversity of second-growth forests in agricultural landscapes in Brazil Rens Brouwer*, Vanessa de Souza Moreno, Ricardo Cesar, Elisa Díaz Garcia, Gabriel Dalla Colleta, Marielos Peña-Claros, Frans Bongers, Robin Chazdon and Pedro Brancalion	837 ☺
15:15	The assembly of tropical dry forest tree communities reflected in functional, phytochemical and spectral traits. Mariana Alvarez Añorve*, Luis Avila Cabadilla, Angel Bravo Monzon, Jose Flores Puerto, Cristina Montiel González, Julieta Benitez-Malvido, Maria Arena Ortiz, Francisco Chiappa Carrara and Alberto Oyama Nakagawa	568 ☺

Conservation Planning, Management, Practice: Plants Ecosystems VII

Room: Barahona 4

Time	Presentation	
14:00	Connecting transdisciplinarity: a citation network review of the multitude of approaches to integrate science and practice across scientific communities Beatriz Murer*	235 ☺
14:15	Strategic planning and conservation based on community participation in the Itapicuru estuary, Condeba, Brazil Gabriela De La Rosa*, David Ludwig and Charbel El-Hani	290 ☺
14:30	Integrative evaluation of Dry Tropical Forest degradation in Colombia Susana Rodríguez-Buritica*, Maria Arce Plata, Yoanna Kraus, Luis Romero-Jiménez, Natalia Norden, Beatriz Salgado-Negret, Andrés Avella, Roy Gonzalez-M., Liiana Corzo, Jennyfer Ruiz and Nelly Rodríguez Eraso	298 ☺
14:45	Conservation Lifestyle: A Formula for Local Communities Empowerment in Tropical Forest Case Study of West Papua, Indonesia Mutiono* and Ratna Ningsih	396 ☺
15:00	Assessing and improving equitable governance in protected and conserved areas: Preliminary analysis of the 'Site-level Assessment of Equity and Governance' Phil Franks, Naira Dehmel*, Mariagracia Graziano, Nikoleta Jones, Adrian Martin, Constance Schéré, Kate Schreckenber, Noelia Zafra-Calvo, Francesca Booker, Donald Chikumbi, Ioli Christopoulou, Retche Colegado, Vassilis Gkoumas, 14. Kalyan Hou, Bertille Mayen Ndiong, Ruth Pinto and Sam Shaba	512 ☺
15:15	What we talk about when we talk about protected areas governance? Daniela Ortégón*	580 ☺
15:30	Determining the socio-ecological factors that influence land use decisions in tropical agricultural systems in the Atlantic Forest region, Brazil. Amanda Fernandes*, Ricardo Rodrigues, Cristina Adams and Marielos Peña-Claros	331 🖥
15:45	Design of conservation strategies with the participation of social actors in post-conflict areas: El Prodigio, San Luis (Antioquia-Colombia). Jenny Mancera Carmona* and Juan de los Ríos Cardona	667 ☺

Socio-ecological Systems, Resilience, Sustainable Development VI

Room: Getsemaní

Time	Presentation	
14:00	Resilience thinking: A way to promote dialogue and reconcile different perspectives in the management of Productive Landscapes Melisa Ayala Joya*, Corina Buendia and Giacomo Santini	633 ☺
14:15	Participatory insights to frailejon's conservation strategies at colombian paramos Erika Salazar* and Amanda Varela	650 ☺
14:30	FCAT: Building local capacity in a biodiversity hotspot Luis Carrasco*, Margarita María Baquero rivadeneira and Lukew Browne	741 ☺
14:45	The nexus between democracy and the environmental issues: the crisis of democracy in Brazil and the Amazonian degradation Cyro Assahira* and Evandro Moretto	757 ☺
15:00	"Fruits falling on the ground": Flooded forest, Arara artisanal fishing, and Belo Monte Dam's hydrological alterations in the Brazilian Amazon Renata Utsunomiya*, Cyro Assahira, Claire Beveridge, Guilherme Lobo, Evandro Moretto and Simone Athayde	774 ☺
15:15	Diversity of traditional useful plants at Samper Mendoza Market, Bogotá, Colombia Germán Torres*	888 ☺
15:30	An integrated approach to the study of orphan crops: towards new conservation strategies in Ethiopia and Guinea Philippa Ryan and Benedetta Gori*	719 🖥
15:45	The impact of Multilateral Forest Programs on livelihoods of forest-dependent women in semi-arid forest ecosystems in Brazil and Burkina Faso	739 🖥

Debbie Pierce*

Population Dynamics and Regulation I

Room: 201

Time	Presentation	
14:00	Tree species demographic trade-offs across the seedling, sapling and larger size classes in five tropical forests Stephan Kambach*, Richard Condit, Helge Bruelheide, Salomón Salomón Aguilar, Chia-Hao Chang-Yang, Yu-Yun Chen, Liza Comita, Nancy Garwood, Stephen Hubbell, Margaret Metz, Rolando Pérez, Simon Queenborough, Nathan Swenson, I-Fang Sun, Jill Thompson, Maria Uriarte, Renato Valencia, Tze Leong Yao, Jess Zimmerman and Nadja Rüger	413 ☺
14:15	How an emergent tree species benefits from being struck by lightning Evan Gora*, Helene Muller-Landau, KC Cushman, Jeannine Richards, Phillip Bitzer, Jeffrey Burchfield and Stephen Yanoviak	638 ☺
14:30	Demographic studies and predictive distribution modelling provide baseline data for conservation action for an endangered orchid endemic to tropical dry Gabriela Torres Torres*, Nhora Ospina-Calderón and Nicola Flanagan	670 ☺
14:45	Estimating jaguar survival and abundance using camera traps and tourists' photos Matthew Hyde* and Valeria Boron	925 ☺
15:00	Demographic response of a range-limited tropical plant to climatic and geographic gradients Jacob Moutouama* and Orou Gaoue	371 ☺
15:15	Nonlinear population response of a tropical tree to perturbation in extreme environments Orou Gaoue* and Habib SABI GANI	392 ☺
15:30	Population structure of three threatened timber species in the Colombian Chocó biogeographic region Kelly Bocanegra-González, Fernando Fernandez Mendez*, Yani Aranguren and Gloria Toro	711 ☺

Species Interactions I

Room: 302

Time	Presentation	
14:00	A case for studying biotic interactions in epiphyte ecology and evolution Michelle Elise Spicer* and Carrie Woods	53 ☺
14:15	Markers of competition between three Puerto Rican anole species Anna Thonis*	70 ☺
14:30	Partitioning of acoustic space among sympatric terrestrial birds in lowland Amazonia Carla Mere Roncal*	71 ☺
14:45	Niche evolution in South American trees and its consequences Danilo Neves*, Toby Pennington, Kyle Dexter, Timothy Baker, Ary Oliveira-Filho, Luciano Paganucci, Haroldo Lima, Gwilym Lewis and Marcelo Simon	306 ☺
15:00	Host plant niche partitioning as a mechanism for species coexistence between hummingbirds and their phoretic mites Laura Bizzarri* and Carlos Garcia-Robledo	311 ☺
15:15	Consequences of host-switching in Panamanian fig wasps Finn Piatscheck*	382 ☺
15:30	The pantropical co-variation of frugivore and plant fruit trait syndromes Andressa Cabral*, Irene Bender, Søren Faurby, Oskar Hagen, Isabell Hensen, Ingolf Kühn, Joseph Tobias and Renske Onstein	429 ☺

Habitat Structure, Fragmentation, Connectivity II

Room: 303

Time	Presentation	
14:00	Landscape heterogeneity can compensate the negative effect of habitat loss on biodiversity in agroecosystems Marcella Pônzio*, Nielson Pasqualotto, Marina Zanin, Adriano Chiarello and Renata Pardini	114 ☺
14:15	Tropical forest typologies distinction and successional stage prediction using UAV-lidar. Danilo Almeida*, Janneke Scheeres, Johan de Jong, Benjamin Brede, Paulo Molin, Angelica Resende, Catherine Almeida, Eben Broadbent, Angelica Zambrano and Pedro Brancalion	269 ☺
14:30	The interaction between ecological and management factors in maintaining net primary productivity in a tropical forest landscape Krishna Anujan*, Jazlynn Hall and Shahid Naeem	297 ☺
14:45	Classification of forest degradation and regeneration based on LiDAR and hyperspectral remote sensing Catherine Almeida*, Lênio Galvão, Jean Ometto, Aline Jacon, Francisca Pereira, Luciane Sato, Celso Henrique Leite Silva Junior, Pedro Brancalion and Luiz Aragão	606 ☺
15:00	Progress toward a national map of mountain peatlands of Ecuador Paul Arellano*, Erik Lilleskov, Rodney Chimner, Esteban Suarez, Leonardo Zurita, Michael Battaglia, Laura Bourgeau-Chavez, Segundo Chambolema and Ricardo Jaramillo	607 ☺
15:15	Landscape memory is mediated by climate in tropical mountains - implications for the spatial distribution of landslides Ana Kilgore*, Carla Restrepo and Laura Ospina	763 ☺
15:30	Agents, factors, and indicators of vegetation anomalies in the Bolivian Amazonia N. Galia Selaya*, Armando Rodriguez-Montellano, Jens Boy and Liana Anderson	903 ☺
15:45	Mapping Forest Age And Characterizing Vegetation Structure And Species Composition In Tropical Dry Forests Using Machine Learning Algorithms Gabriela Reyes Palomeque*, Juan Dupuy and Jose Luis	9 ☞

Restoration Ecology: Plants, Animals Ecosystems VII

Room: 304

Time	Presentation	
14:00	Active restoration fosters better recovery of tropical rainforest birds than natural regeneration in degraded forest fragments Priyanka Hari Haran* and T.R. Shankar Raman	245 ☺
14:15	Functional Seed Traits as Predictors of Germination and Seedling Growth for Species with Potential for Restoration in Caquetá, Colombia Luis Beltrán*, Lilia Roa-Fuentes, María Nieto Guzmán and Carlos Rodriguez	263 ☺
14:30	Sounds of restoration: can audio recordings from recovering forests tell us how animals respond to ecological restoration? Vijay Ramesh*, Priyanka Hari Haran, Akshay VA, Pooja Choksi, Sarika Khanwilkar, VV Robin and Ruth Defries	291 ☺
14:45	Optimizing forest restoration to improve water resources conservation in the Brazilian Atlantic Forest Viviane Dib*, Carlos Cordeiro, Luiz Gustavo Oliveira, Diogo Rocha, Eduardo Lacerda, Renata Capelião, Alvaro Iribarem, Bernardo Strassburg and Mark Mulligan	318 ☺
15:00	Dry forest restoration in Madagascar Ariadna Mondragon-Botero*, Vanessa Winchester, Jennifer Powers and Rubin Sagar	319 ☺
15:15	Ecological succession in a restored Andean forest: lessons from plant recruitment Marina Piquer Doblas* and Luis Fernando Osorio Vélez	347 ☺
15:30	Restoring tropical dry forests, where? how?: a global overview Natalia Mesa-Sierra*, Marínés de la Peña-Domene, Julio Campo and Christian Giardina	356 ☺

Climate Change: Impacts and Solutions V

Room: Secretaría

Time	Presentation	
14:00	Changes in Mangrove Carbon Stocks and Exposure to Sea Level Rise (SLR) under Future Climate Scenarios Minerva Singh*	768 ☺
14:15	Climate warming impacts the taxonomic and phylogenetic diversity patterns of plants associated with neotropical seasonally dry forests Erika Manrique*, David Prieto-Torres, Jorge Mercado Gómez, Fabricio Villalobos and Roger Guevara	863 ☺
14:30	Assessing the rapid loss of different facets of Amphibian diversity in the Neotropics Pablo Menendez-Guerrero*, Sofía Carvajal-Endara, Santiago Ron, Jorge Vaca-Guerrero, Mario Yáñez-Muñoz, Martín Bustamante, David Green and T. Jonathan Davies	881 ☺
14:45	Phylogeography and adaptive genomic variation in Guazuma Natalia Contreras Ortiz*	732 📄
15:00	Unburnable fossil fuels in Tropical rainforests: collateral benefits of climate mitigation policies Martí Orta-Martínez*, Lorenzo Pellegrini, Arsel Murat, Gorka Muñoa and Carlos Mena	840 ☺

Posters

All posters will be presented at the Claustro de la Ánimas of the CCC from 17:30 to 18:30 hrs.

[Section 1] Population, Community, or Landscape Ecology

Poster No.	Presentation	
1	Soil microbial community, tree community and soil environment shape seedling recruitment in South-east Asia Suzanne Ou*	62 ☺
2	Gather round the tree: Woody aboveground biomass increases animal presence and species richness in a tropical forest-savanna ecotone. Merry Marshall*, T. Trevor Caughlin and Anand Roopsind	727 ☺
3	Fear or food? Prey biomass is more important than predation risk for insectivorous bats across an Amazon disturbed forest landscape Giulliana Appel*, Christoph F. J. Meyer and Paulo Estefano Dineli Bobrowiec	728 ☺
4	A potentially carnivorous species? Establishing nitrogen acquisition strategies of Bejaria resinosa (Ericaceae) in Colombia. Antony Ortiz Suarez* and Adriana Corrales	738 ☺
5	From microbes to new tropical forests: experiment of fungal specialization on host tree genotypes in context of reforestation experiment. Karla Zambrano*, Rosa Isabel Soria Penafiel	742 ☺
6	Riparian forest health in the Amazon: impacts of deforestation on temporal dynamics of vegetation Leonardo Maracahipes-Santos, Divino Vicente Silvério, Leandro Maracahipes*, Eddie Lenza, Marcia Macedo, Antônio Carlos Silva, Maria Uribe, Susan Trumbore and Paulo Brando	799 ☺
7	Diversity and Species Composition in Soil Seed Banks of Secondary and Old-growth Tropical Mountain Forests in Colombia Gabriela Castano*, Carolina Alvarez-Garzón and Juan Posada	804 ☺
8	Temporal species turnover in amphibian and reptile species assemblages: A comparison between forest and oilpalm plantation sites. Jennifer Insup* and Christian Schulze	820 ☺
9	"Mycorrhizal fungi associated with Coccoleba uvifera in the Colombian tropical dry forest: an approach for ecological restoration" Luisa Chavarro*, Adriana Corrales and Santiago Madriñán	842 ☺
10	Predation, but not herbivory, declines with elevation in a tropical rainforest Brinna Barlow*, Louise Ashton and Akihiro Nakamura	923 ☺
11	Data digging from photographs of Paraguayan moths (Lepidoptera) using deep-learning-based object detection Zsófia Varga-Szilay* and Gábor Pozsgai	926 ☺
12	Ecological factors that structure plant-hummingbird interactions in urban areas. A case study of an interaction network in a Colombian city	928 ☺

	Johana Leguizamón*	
13	Land Cover Effects on Vascular Epiphytes Diversity in Northwestern Andes, Colombia Paula Morales-Morales*, Felipe Cardona and Mónica Sepúlveda	933 ☺
14	Intraspecific variability of wood anatomy traits in three widely distributed tropical dry forest species in Colombia Laura Salinas*, Fabián Garzón Ramos, Roy Gonzalez-M., Carolina Alcazar Caicedo, Evert Thomas, Beatriz Salgado-Negret and Esperanza Pulido	940 ☺
15	Intraspecific variation in leaf traits on fire-prone landscapes: The case of "Saladillo rojo" (<i>Caraipa llanorum</i> Cuatrec.) Maria Constanza Meza Elizalde* and Dolors Armenteras	905 ☺
16	Local valuation and ecological effects on the habitat of baobab (<i>Adansonia digitata</i> L.) in Benin Benoît Ahignon* and Clauvis Imourou	713 ☺
17	Does biogeography can determine assembly mechanisms? An analysis with Mexican bat communities Cristian Cornejo-Latorre* and Luz Sil-Berra	834 ☺

[Section 2] Ecosystem Function, Ecosystem Services

Poster No.	Presentation	
18	Machine learning as a tool for the identification of palm phytoliths in the province of Napo-Ecuador Karla Vera Guerrero*, Bryan Valencia, María Peñuela and Alex Sánchez	789 ☺
19	Characterization of the xylophage fungi community and their functional traits in a lower montane forest of Colombia Liz Velasco*, Adriana Osorio and María Rodríguez	832 ☺
20	Examining the impacts of edge effects on plant water use in Amazon-Cerrado transitional forest Lachlan Byrnes*, Paulo Brando, Leandro Maracahipes, Leonardo Maracahipes-Santos, Divino Svlério, Ludmila Rattis, Susan Trumbore and David Herrera	854 ☺
21	Effect of species prioritized for restoration on soil properties in an inter-Andean tropical dry forest (Huila, Colombia) Rosa Arrieta Gonzalez*, Juan Benavides-Tocarruncho, Horacio Paz, Nelly Rodríguez Eraso and Beatriz Salgado-Negret	880 ☺
22	Loss of diversity caused by fire and the future trajectories of transitional tropical forests in the Amazon Leandro Maracahipes*, Divino Vicente Silvério, Leonardo Maracahipes-Santos, Eddie Lenza, Antônio Carlos Silva, Marcia Macedo, Susan Trumbore, Rafael Oliveira and Paulo Brando	894 ☺
23	Phenology and stem growth in trees from the Arboretum at National University of Colombia, Medellín. Jorge Giraldo*, Alejandro Torres, Mauricio Herrera Palacio, Marileny Vásquez Piedrahita, Wilmar Lopez, Alejandro Gómez, Kevin David, Diego David and Jorge Ignacio Del valle	908 ☺
24	Hydraulic adjustments linked to leaf phenology in Brazil nut trees (<i>Bertholletia excelsa</i>) Karen Sobral Moreira, Victor Alexandre Hardt Ferreira dos Santos. Hardt Ferreira dos Santos. and Maquella Garcia*	924 ☺
25	How is leaf silicon concentration related with other leaf traits in lowland tropical forest trees in Pasoh, Malaysia? Ryosuke Nakamura*, Kaoru Kitajima, Hidehiro Ishizawa, Kaoru Niiyama, Nur Shari, Azizi Ripin and Yoshiko Lida	978 ☺
26	Malagasy fruit-frugivore network:Ficus as a model system Diary Razafimandimby* and Omer Nevo	393 ☺
27	Effect of leaf litter flow and light environment on the dynamics of the seedling bank of the valley of Magdalena. Tatiana Montañez Rodríguez*, Omar Melo and Karen López Manzanares	915 ☺

[Section 3] Environmental Change (Global/Local)

Poster No.	Presentation	
28	Perspectives in the study of the effect of environmental variability associated with climate change on the morpho-physiology of pollen Valentina Montoya Ramirez* and Gabriel Colorado	674 ☺
29	Resilience to drought in a humid tropical Dipterocarp forest, India Siddarth Machado* and Daniel Johnson	793 ☺
30	In situ photosynthetic responses of understory plants to elevated CO₂ in a central Amazon forest Amanda Rayane Damasceno*, Sabrina Garcia, Juliane Menezes, Iokanam Sales Pereira, Tomas Domingues, Izabela Aleixo, Alacimar Guedes, Bruno Portela, Gabriela Neves, Vanessa Ferrer, Flávia Santana, Yago Santos, Crisvaldo de Souza, Julyane Pires, Richard Norby, Bart Kruijt, Katrin Fleischer, Martin De Kauwe, Thorsten Grams, Iain Hartley, Anja Rammig and Carlos Quesada	525 ☺
31	Reconstructing past fossil-fuel CO₂ concentrations using tree rings and radiocarbon in the urban area of city Medellín, Colombia Marileny Vásquez Piedrahita*, Wilson Lara, Jorge Ignacio Del valle and Carlos Sierra	794 ☺
32	Rising temperature could be favoring the arrival of crop pests to high mountain paramo vegetation Paula Torres*, Eloisa Lasso and Camilo Salazar	798 ☺

[Section 4] Conservation, Restoration

Poster No.	Presentation	
33	Edge effect on the diversity of spiders present in severely fragmented tropical dry forest remnants in southwestern Colombia Carlos Valderrama-Ardila* and Gustavo Zabala	726 ☺
34	A decade of studies on forest recovery after mining in the Eastern Amazon: What have we learned?" Rafael Assis* and Fridtjof Mehlum	734 ☺
35	Occurrence of albino seedlings of the species <i>Eschweilera micrantha</i> (Lecythidaceae) and comparison of survival with green-leaf seedlings, Central Amazon, Brazil Maíra da Rocha*, Renata de Almeida, José Luiz Lima and Ruby Vargas-Isla	826 ☺
36	Identification of Wood species from Selva Central, Peru Cassiana Ferreira*, Janet Gaby Gullien, Benji N/A, Danessa Clarita Aliaga, Sthefany Madjory Mateo, Walter Emilio Centeno, Raul Buendía, Osir Vidal, MARIO Tomazello-Filho, Thonny Behyker Centeno Utos Utos and Andres Velez	708 ☺
37	Looking for Tropical Dry Forest mammals in a Southwest region of Colombia Zaira Gómez Mesa*, Julián Lozano Flórez, Nicolas Reyes Amaya and Carmen Barragan Ruiz	751 ☺
38	Evaluating temporal and spatial trends in roadkill frequency in Central Panama: A baseline study Lourdes Hernández*	805 ☺
39	Environmental compensation in Costa Rica: Disparity between commitments and actions Mahmood Sasa*, Fabian Bonilla and Juan Salvador Monrós	818 ☺
40	Silviculture with native species: The case of <i>Retrophyllum rospigliosii</i> in the southwest of Colombia Jorge Ramirez* and Adriana Marin	906 ☺

[Section 5] Socio-ecological Dimensions, Resilience, Sustainable Development

Poster No.	Presentation	
41	Can familiarity with the campus flora enhance student awareness of biodiversity value? A case from Universidad EAFIT, Medellín, Colombia Samuel Peláez Vélez, Camila Martínez, Ana Rueda Urrego*, Luisa Patiño, Luis Giraldo, Estela Quintero and Victor Vazquez	901 ☺
42	MaderApp: A mobile application for the automatic recognition of commercial wood species in Selva Central, Peru. Casiana Ferreira, Andres Velez, Janet Gaby Gullien, Thonny Behyker Centeno Utos Utos*, Danessa Clarita Aliaga, Walter Emilio Centeno, Benji, Sthefany Madjory Mateo, Raul Buendia, Osir Vidal and Mario Tomazello-Filho	578 ☺
43	Novel substrates for cultivation of <i>Rhynchophorus palmarum</i>: An alternative for conservation of a complex human-plant-insect interaction network Angelica Torres Bejarano*, Gabriel Colorado and Johan Durán	604 ☺
44	Non timber products in Colombia Amazon Region. Research and Development with local communities J. Barrera*	1000 ☺
45	Wildlife consumption in the northeastern Colombian Amazon: strengthening community knowledge and governance through local research Mariela Osorno-Muñoz*	1001 ☺

Virtual Posters

Poster No.	Presentation	
46	Variation in effects of host tree size on the species richness and abundance of vascular epiphyte assemblages among tropical forests Natsuki Komada*, Takao Itioka, Akira Nakanishi, Shuichiro Tagane, Usun Shimizu-kaya, Michiko Nakagawa, Paulus Meleng and Runi Pungga	780 🖥
47	The role of protected areas in reducing fire degradation threats in the triple border between Brazil, Bolivia and Peru Luna Mattar*, Ana Carolina Pessôa, Celso Henrique Leite Silva Junior and Liana Anderson	910 🖥

**Thursday
July 14**

Plenary Sessions



Is there really such a thing as TROPICAL Biology?

Keynote

8:00 hrs, Getsemaní

Speaker: Emilio Bruna

Speaker bio

Emilio M. Bruna is a Distinguished Teaching Scholar and Professor of Ecology Latin American Studies the University of Florida (USA). He received his doctorate from the University of California, Davis in 2001, after which he was an NSF Minority Postdoctoral Fellow at Brazil's Instituto Nacional de Pesquisas da Amazônia before joining the UF Faculty in 2002. His research focuses on (1) the effects of deforestation and habitat fragmentation in the tropics on plant demography and plant-animal interactions, and (2) the structure of scientific institutions and collaborative networks. In addition to his research and teaching, Bruna has also served in numerous leadership positions for the scientific community: from 2014-2020 he was a member of the Board of Directors of the Dryad Digital Repository and he served as Editor-in-Chief of Biotropica from 2013-2020. He recently completed his term as President of the Association for Tropical Biology Conservation and in 2023 will begin a three-year term as Secretary of the Ecological Society of America. Bruna's research collaborations and teaching have been recognized with the Outstanding Article Award from the US Chapter of the International Association for Landscape Ecology, the Julie S. Denslow Prize from the ATBC, the John L. Harper Prize from the British Ecological Society, and recognition as Graduate Advisor Teacher of the Year by the UF College of Agricultural and Life Sciences.

Tropical Biology in the age of parachutes & helicopters: 30 years of observations from Rwanda and the Albertine Rift

Presidential Address

16:30 hrs, Getsemani

Speaker: Beth Kaplin

Speaker bio

Beth Kaplin is a biodiversity conservation scientist currently serving as the first Director of the Center of Excellence in Biodiversity Natural Resource Management at University of Rwanda (UR) since 2016. This is a relatively new knowledge management research center with UNESCO Category 2 Center status aimed at contributing science to policy. She is a Professor of Conservation Science at UR, and works with BSc, MSc and PhD students at UR and other academic institutions. She is an affiliated Research Professor in the School for the Environment and Senior Fellow at the Center of Global Governance and Sustainability, both at University of Massachusetts-Boston. She is the currently President of the Association for Tropical Biology and Conservation. She received her BSc in wildlife biology from Colorado State University, and MSc and PhD in Zoology from University of Wisconsin-Madison. From 2006 to 2015, she raised over 1 million USD from the MacArthur Foundation to develop BSc and MSc programs in biodiversity conservation at National University of Rwanda. She also created the Regional Network for Conservation Educators in the Albertine Rift to support and empower conservation scientists in Rwanda, Burundi, DRC, Tanzania, and Uganda with MacArthur Foundation support. Beth maintains a research program with her students on tropical forest ecology, seed dispersal, primates, protected areas conservation, ecosystem services, climate adaptation, and human-wildlife interactions that began in 1990 when she first came to do research in Nyungwe forest, Rwanda. She is very interested in evaluating and monitoring effectiveness of ecosystem-based adaptation and landscape restoration initiatives and is working with colleagues to develop the Rwanda Biodiversity Information system. Kaplin has focused her career on the role of higher education in building capacity for biodiversity conservation and climate adaptation research in Africa. She lives in Rwanda with her husband and gets to visit their family home in Vermont, USA whenever possible.

Symposia



-10:30 to 12:30 hrs-

Before and-after tropical forest restoration across different landscapes (S-45)

Room: Barahona 1

Time	Presentation	
10:30	Introduction	
10:45	Restoring seed dispersal processes in a tropical agricultural landscape Marinés de la Peña-Domene*, Cristina Martínez-Garza, Luis Beltrán and Henry Howe	120 ☺
11:00	Upscaling seedling abundance predictions to landscape restoration projects size Cristina Barber*, Sarah Graves, Jefferson Hall, Pieter Zuidema, Jodi Brandt, Stephanie Bohlman, Gregory Asner, Mario Bailón and T. Trevor Caughlin	819 ☺
11:15	Forest recovery in a montane landscape, future insights to restore degraded lands Sandra Velazco Salvatierra*, Owen McBride, Wilfredo Mendoza Caballero, Donna Delparte and T. Trevor Caughlin	740 ☺
11:30	Designing forest restoration strategies to mitigate wildfire damage in eastern Madagascar John Reid*, D. Matthew Hill, Eva Colberg, Lee Frelich and Rebecca Montgomery	286 ☺
11:45	Secondary forest trees are better than pioneer treelets at restoring montane forest through nucleation in old fields Juan Garibello*, Iván Rodríguez and Ignacio Barrera	660 ☺
12:00	Impacts of forest restoration on dead wood decomposition and associated arthropod communities Estefania Fernandez Barrancos*, Robert Marquis, John Reid, Karen Holl and Rakan Zahawi	438 📖
12:15	Discussion/Conclusions	

The role of biotic interactions in shaping tropical forest diversity (S-8)

Room: Barahona 2

Time	Presentation	
10:30	The role of plant-insect interactions in community assembly at local and regional scales María-José Endara, Phyllis Coley*, Dale Forrister, Kyle Dexter and Toby Pennington	260 ☺
10:45	Exploring the phytochemical landscape in space and time: Implications for the evolution of tropical trees and species coexistence Dale Forrister*, María-José Endara, Gordon Younkin, Phyllis Coley and Thomas Kursar	527 ☺
11:00	Pests and pathogens in tropical disturbed habitats: heliconias as a model system Julieta Benitez-Malvido*	161 ☺
11:15	Latitudinal gradients in tritrophic interaction diversity Lee Dyer*	196 ☺
11:30	Multi-host pathogens and the maintenance of forest diversity Erin Spear*	899 ☺
11:45	Seed infecting fungi, an understudied component of plant-microbial interactions, show strong host-specific effects on seed survival and germination Jim Dalling*, Camilo Zalamea, Carolina Sarmiento, Adam Davis and A. Arnold	692 ☺
12:00	Extending Janzen-Connell to seeds: Spatial structure of survival, germination, and seed-associated fungi in a lowland tropical forest Carolina Sarmiento*, A. Arnold, Jim Dalling, Adam Davis, Daniela Varon-Garcia, Elizabeth Bowman and Camilo Zalamea	697 ☺
12:15	Discussion/Conclusions	

The role of functional traits in shaping species coexistence at local and landscape scales. (S-12)

Room: Barahona 4

Time	Presentation	
10:30	Introduction	
10:45	Pantropical tree growth response to climate and the mediation effect of species functional traits David Bauman*, Sean McMahon, Yadvinder Malhi, Sami Rifai, Guillaume Delhay, Imma Oliveras Menor, Lucas Cernusak, Alexander Shenkin, Erika Berenguer, Stephen Adu-Breda, Sabine Both, Oliver Phillips and Claire Fortunel	229 ☺
11:00	Importance of species abundances representativeness and trait variability for a functional trait community characterization in tropical dry forests Roy Gonzalez-M.*, Beatriz Salgado-Negret, Fabián Garzón Ramos, Laura Salinas, Carlos Perez-Carmona and Juan Posada	859 ☺
11:15	Variation in plant ecophysiological traits along a tropical aridity gradient explained with optimality theory Huanyuan Zhang-Zheng*, Kasia Zieminska, Imma Oliveras Menor, Theresa Peprah, Jesús Aguirre Gutiérrez, Yadvinder Malhi, Mickey Boakye, Agne Gvozdevaite, Stephen Adu-Breda, David Sandoval and Iain Colin Prentice	977 ()
11:30	Discussion/Conclusions	

Reconnecting the forest canopy: Lessons from artificial canopy bridge studies in various geographies and habitats (S-34)

Room: Secretaría

Time	Presentation	
10:30	Introduction	
10:45	Canopy bridges: A necessary tool towards sustainable infrastructure for arboreal species Tremaine Gregory*, FERNANDA ABRA, Kylie Soanes, Fernanda Teixeira, KAI Nekaris, Ines Azofeifa Rojas and Birthe (Bibi) Linden	574 ☐
11:00	Reconnecting Brazilian rainforests: lessons learned from canopy bridges applied projects Fernanda Abra*, Fernanda Teixeira, Marcelo Gordo, Aline Medeiros, Edson Costa, Patrícia Dias and Márcia M. A. Jardim	579 ☺
11:15	Preliminary results on arboreal mammal use of three artificial canopy bridge designs over a logging road in peruvian amazonia. Vania Tejeda Gómez*, Tremaine Gregory, Farah Carrasco-Rueda and Fernanda Abra	864 ☺
11:30	Spider monkeys do not use artificial canopy bridges to cross linear infrastructure Filippo Aureli*, Anja Hutschenreiter, Daniela Araya Gamboa, Esmeralda Arévalo-Huezo, Tamara Avila Atagua, Colline Boledieu, Alberto González Gallina, Stacy Lindshield, Giselle Narvaez Rivera, Vincent Rufray, Mark Thurber and Denise Spaan	168 ☺
11:45	Discussion/Conclusions	

-14:00 to 16:00 hrs-

[Symp S-33] XPRIZE Rainforest: Revolutionizing Tropical Ecology and Conservation with Technological Innovations (S-33)

Room: Barahona 4

Time	Presentation	
14:00	Introduction	
14:15	XPRIZE Rainforest: Revolutionizing Tropical Ecology and Conservation with Technological Innovations Peter Houlihan*	724 ☺
14:30	Interactive tools can drive evidence-informed decisions in conservation: insights from camera trap surveys in the Amazon Jorge Ahumada*, Samantha Cheng, Erin Murphy	979 ☺
14:45	Smithsonian Tropical Research Institute: A global scientific platform Oris I. Sanjur*	999 ☺
15:00	Discussion/Conclusions	

Oral Sessions

-9:00 to 10:00 hrs-

Communities: Spatio-temporal Patterns and Environmental Gradients I

Room: Arsenal

Time	Presentation	
9:00	Phenology and developmental rhythmicity of the <i>Cerberiopsis</i> species (Apocynaceae): The growth trajectories of <i>C. candelabra</i>, a monocarpic pioneer tree. Camille Salmon*, Patrick Heuret and Sandrine Isnard	408 ☺
9:15	Forest-lake ecotones in a tropical forest: Terrestrial invertebrate inputs to lakes decrease with forest distance Bárbara Dolabela*, Fernanda Costa, Victor Pinto, Isabela Lopes, José Fernandes Bezerra-Neto, Francisco Barbosa and Servio Pontes Ribeiro	419 ☺
9:30	How do centuries of taxonomic change affect the species richness of Amazonian palms? Juliana Stropp*, Richard Ladle, Andreza Pereira, Thaise Emilio, Leila Meyer, Fernanda Martins and Joaquín Hortal	399 ☞
9:45	A new methodological framework to model tree diversity trajectories after disturbances in tropical forests, integrating both disturbance type and intensity Eliott Maurent*, Bruno Hérault, Geraldine Derroire, Diego Delgado, Camille Piponiot, Leslie Morrison Vila, Bryan Finegan and Marie Ange Ngo Bieng	267 ☞

Restoration Ecology: Plants, Animals Ecosystems VIII

Room: Barahona 1

Time	Presentation	
9:00	Restoration plantings: forest floor conexions in the dry forest Cristina Martínez-Garza*, Valentina Carrasco-Carballido, Gerardo Rojas-Robles, Paula Vargas-Pellicer and Julio Campo	366 ☺
9:15	Priority areas for forest restoration in the Brazilian Atlantic Forest: a multicriteria approach Viviane Dib, Juliana Almeida Rocha*, Maioli Veronica, Gomes Fernanda, Alvaro Irribarem, Diogo Rocha, Eduardo Lacerda, Luiz Gustavo Oliveira, Renata Capelião, Eric Lino, Carlos Cordeiro, Agnieszka Latawiec, Bernardo Strassburg and Carlos Alberto Scaramuzza	367 ☺
9:30	Responses to climate change of dry deciduous forest species along a climatic gradient in Mexico: a translocation experiment Citlali Aguirre Salcedo*, Roland Jansson and Eliane Ceccon	466 ☺
9:45	To be or not to be a forest: Implications for forest restoration in India's forest-savannah mosaic landscapes Trisha Gopalakrishna*, Sami Rifai, Nicola Stevens, Jayashree Ratnam and Yadvinder Malhi	404 ☞

Habitat Structure, Fragmentation, Connectivity III

Room: Barahona 3

Time	Presentation	
9:00	Understanding the impact of habitat transformations in differential landscape structures on a Tropical Andean epiphytic orchid Nhora Ospina-Calderón*, Raymond Tremblay, Christopher Dick, Alejandro Zuluaga, Alba Torres and Nicola Flanagan	659 ☺
9:15	Mapping forest structure and tree diversity in Colombia, South America. Jose Fagua*, Patrick Jantz, Patrick Burns, Nicolás Castaño, Susana Rodríguez-Buritica and Scott Goetz	590 ☺
9:30	How does landscape structure affect mammal species? a case study of highly fragmented dry forest landscape in Ecuador. Xavier Haro-Carrión*, Jon Johnston and Maria Juliana Bedoya	573 ☺
9:45	Birds beyond borders: hornbill abundances, resource tracking and nest monitoring in contiguous rainforests and adjoining plantation landscape in India Pooja Pawar*, Divya Mudappa and T.R. Shankar Raman	242 ☺

Conservation Planning, Management, Practice: Plants Ecosystems VIII

Room: Barahona 4

Time	Presentation	
9:00	From Lemurs to Lobsters: Land to Sea Links in a Coastal Socio-ecological System in Western Madagascar Katharine Thompson*, Cortni Borgerson, Katherine Kling, Jeanne Mathilde Randriamanetsy, Mamy Yves Andrianantenaina, Alexander Théofric Razafindrahasy, Claire Surkis, Carter Daniels, Niaina Nirina Mahefa Andriamavosoloarisoa and Ryan Rothman	921 ☺
9:15	A new platform to mobilize global biodiversity data for tropical conservation Nigel Pitman*	944 ☺
9:30	The Lemuindex: a simple, transparent and efficient spatial conservation prioritisation method Stephan Funk*, Leo Prieto, Ricardo Baeza-Yates, Carlos Canales-Cerro, Alexandra Castañeda, Francisco Galdames, Pablo González, Sangeetha Narayan, Christian Peña, Patricio Pliscoff, Cristian Rojo	997 ☺
9:45	Which is the role of spatial landscape literacy in public participation processes and opinions on environmental issues and ecosystem services? Nicola Clerici*, Francisco Escobedo, Marius Bottin, Guibor Camargo salamanca and Alejandro Feged Rivadeneira	887 ☺

Urban Ecology: Animals

Room: 201

Time	Presentation	
9:00	Species-specific responses of Psittacidae across an urbanization gradient in the Aburrá Valley, Antioquia-Colombia Maria Figueroa Zuluaga*, Haudy Caceres Lopez, Jaime Garizábal-Carmona, Juan Giraldo Salazar and Paula Montaña Casas	770 ☺
9:15	Bird diversity along an urban gradient in a city of Northern Andes of Colombia: community and species-specific response Paula Montaña Casas*, Haudy Caceres Lopez, Jaime Garizábal-Carmona, Maria Figueroa Zuluaga and Juan Giraldo Salazar	900 ☺
9:30	Opportunities for ecological restoration of exotic grass areas: potential impact on avian biodiversity in urban conservation units of the Cerrado Gabriel Marins*, Rosa Cartagena and Roberto Cavalcanti	766 ☞
9:45	Urban avifauna: 18 years of Christmas Bird Counts in three Colombian cities Juan Amaya-Espinel*, Maria Echeverry-Galvis and Pabla Lozano Ramírez	782 ☺

Species Interactions II

Room: 302

Time	Presentation	
9:00	Impacts of Climatic variability and hurricanes on caterpillar diet breath and plant-herbivore interaction networks Karina Boege Pare*, Ek del-Val, Jazmin Zetina and Ivonne Delgado	450 ☺
9:15	Seasonal variability of plant-hummingbird interaction network in a tropical rainforest of the Colombian Darien Sofía Baquero Echeverri* and Gabriel Colorado	618 ☺
9:30	Using citizen science data to study animal movement: implications for ecological connectivity of hummingbirds in the Andes Cristina Rueda-Uribe* and Justin Travis	791 ☺
9:45	Mechanisms of mutualism disruption between <i>Khaya senegalensis</i> (Meliaceae) and <i>Oecophylla longinoda</i> (Formicidae) Mathieu KIKI* and Orou Gaoue	11 ☺

Population Dynamics and Regulation II

Room: 303

Time	Presentation	
9:00	Evolutionary history of Indonesian nutmeg (<i>Myristica fragrans</i> Houtt.) Jakty Kusuma*, Jerome Duminil and Nora Scarcelli	416 ☺
9:15	Distance and Density dependent regeneration, seed production and biomass accumulation of the Brazil nut (<i>Bertholletia excelsa</i>) Evert Thomas*	681 ☺
9:30	Updating distribution of <i>Magnolia calimaensis</i> (Lozano) Govaerts an endemic and critical endangered species Kelly Bocanegra-González*, Fernando Fernandez Mendez, Yani Aranguren, Juan Pablo Cuevas, Cristian Rodas and Gloria Daniela González Zúñiga	955 ☺

Threats on Biodiversity, Species Conservation Status I

Room: 304

Time	Presentation	
9:00	Anthropogenic threats may cause Vulnerable Andean Condor extirpation in northern South America Juan Restrepo-Cardona*	166 ☺
9:15	Site-occupancy modelling for two threatened and endemic birds of Colombia: a case study from southwestern Colombia Cristian Vidal-Maldonado*, María Gallego-Roper, Lorena Cruz-Bernate and Wilmar Torres	474 ☺
9:30	Systematic Review on Impacts of Water Pollution on Avifauna Sachini Perera* and Medhisha Gunawardena	505 🖥
9:45	Bioaccumulation of petrogenic compounds in Amazonian wildlife from oil extraction areas in the Peruvian Amazon Martí Orta-Martínez*, Lucía Soliño, Antoni Rosell-Melé and Pedro Mayor	843 ☺

Monitoring Biodiversity I

Room: Secretaría

Time	Presentation	
9:00	AMAZONIA CAMTRAP: a dataset of mammal, bird and reptile species recorded with camera traps in the Amazon forest Ana Carolina Antunes*, Anelise Montanarin, Diogo Maia Gräbin, Erison Monteiro, Fernando Pinho, Guilherme Costa Alvarenga, Jorge Ahumada, Robert B. Wallace, Emiliano Esterici Ramalho and Jeroen van de Kerkhof	105 😊
9:15	Acoustic indices limited in their efficacy of quantifying biodiversity in a tropical dry forest in central India Mayuri Kotian*, Pooja Choksi, Siddharth Biniwale, Praver Mourya and Zuzana Burivalova	187 📖
9:30	<i>Paxilloboletus</i> gen. nov., a new lamellate bolete genus from tropical Africa Sylvestre Badou*	2 😊
9:45	Bat sonotype as a novel insight inot the Congo Basin Rainforest dynamic Yoba Alenga*	20 😊

-10:30 to 12:30 hrs-

Communities: Spatio-temporal Patterns and Environmental Gradients II

Room: Arsenal

Time	Presentation	
10:30	Tree growth rates along a tropical elevational gradient Manuel Bernal*, Jorge Giraldo, Bryan Finegan and Fernando Casanoves	448 ☺
10:45	Local and landscape scale drivers of understory herbaceous plant diversity and cover along a tropical rainfall gradient in Western Ghats, Harikrishnan Venugopalan Nair Radhamoni*, Liza Comita, Simon Queenborough, A.Z.Andis Arietta, Hebbalalu S. Suresh, Handanakere S. Dattaraja, Subramanya Shravan Kumar and Raman Sukumar	702 ☺
11:00	Seasonal variation in patterns of anuran diversity along a subtropical elevational gradient is partly explained by thermal niches Vitor Carvalho-Rocha*, Carlos Peres and Selvino Neckel-Oliveira	703 ☺
11:15	The diversity of migratory behaviors in Amazonian fishes: a literature synthesis Guido Herrera-R* and Elizabeth Anderson	919 ☺
11:30	Patterns of resistance and resilience in forest bird populations subjected to hurricanes and droughts Robert Waide*, Jeff Thompson, Brittany Barker	998 ☺
11:45	Frugivorous fish species diversity in the Amazon drainage basin Karold Coronado*, Pablo Tedesco, Kristine Evans and Sandra Correa	942 ☞
12:00	Range overlap and species divergence in birds along a tropical elevational gradient Jill Jankowski*, Juan Pablo Gómez, Jenny Muñoz, Gustavo Londoño and Scott Robinson	623 ☺

Conservation Planning, Management, Practice: Animal I

Room: Barahona 3

Time	Presentation	
10:30	Conservation of birds in fragmented landscapes requires protected areas Robert Timmers*	51 ☺
10:45	Diminishing kingdom: Identifying important areas for Andean condor (<i>Vultur gryphus</i>) conservation in Colombia María Parrado-Vargas*, Björn Reu, José González-Maya, Antoni Margalida Vaca and Felix Vargas	137 ☺
11:00	Impacts of selective logging on forest elephants (<i>Loxodonta cyclotis</i>) in two timber concessions of central Africa Morgane Scalbert*, Sarah Tossens, Cédric Vermeulen and Jean-Louis Doucet	257 ☺
11:15	Conserva Aves: streamlining the protection of the most critical places for migratory and resident birds in Latin America Jorge Velásquez-Tibatá*, Jill Deppe, Nathaniel Seavy, Sebastian Herzog, William DeLuca, Joanna Grand, Daniela Linero Triana and Matthew Jeffery	777 ☺
11:30	Establishing conservation targets for Amazon freshwater ecosystems at basin scale Elizabeth Anderson*, Claire Beveridge, Sandra Correa, Thiago Couto and Michael Goulding	907 ☺
11:45	Assessing woodpeckers as indicators of bird diversity and habitat structure in managed forests Tarun Menon* and Ghazala Shahabuddin	397 ☺
12:00	Re-wilding Experience: Stimulating foraging competency in captive red pandas (<i>Ailurus fulgens fulgens</i>) selected for augmentation programme at Darjeeling zoo, India Aamer Khan*	129 ☺
12:15	Participation for conservation: three different participatory monitoring experiences for the conservation of Colombian fauna Leonor Valenzuela*, Sandra Hernandez, Juan Corrales, Julieta González, Carlos Saavedra and German Forero-Medina	764 ☺

Socio-ecological Systems, Resilience, Sustainable Development VII

Room: Getsemaní

Time	Presentation	
10:30	Wildlife trade from Myanmar to China Olivier Boissier*	39 😊
10:45	Decreasing conflict with wildlife by improving human attitudes - a cross-cultural approach Federica Amici*, Jose Luis Gomez-Melara, Risma Illa Maulany, Putu Oka Ngakan and Shahrul Anuar Mohd Sah	589 😊
11:00	Indigenous taxonomy in Papua New Guinea: Preserving critically endangered language and flora George Weiblen*, Zacky Ezedin, Timothy Whitfeld and Jonah Philip	966 😊
11:15	Large-scale extractive investments in Madagascar – direct and indirect impacts on nature and people Julie Zaehring*, Onintsoa Andriamihaja, Fenitra Soavina Rajerison, Ambinintsoa Rakotoarinosy, Maëlle Nofisoa Andriambalohary, Bruno Ramamonjisoa, Luc Schmid, Lukas Würsch and Sandra Eckert	969 😊
11:30	Fighting fire with focus groups: How Colombia's wildfire management policies can benefit from interdisciplinary stakeholder consultation Charles Tebbutt*, Maria Constanza Meza Elizalde, Laura Obando Cabrera, Gustavo Gutiérrez García, Tahia Devisscher, Dolors Armenteras and Imma Oliveras Menor	851 😊
11:45	Economic Sustainability of Human-Elephant Conflict Mitigation Program Dinesh Neupane*	949 😊
12:00	Orchid Brigade Program: Sustainable management of Mexican orchids with the communities of Oaxaca and Chiapas Montserrat Castellanos Ramírez*	42 😊

Species Interactions III

Room: 302

Time	Presentation	
10:30	Long-term suffering: Drought duration limited Ficus defensive traits but increased the herbivory of caterpillars Xue Xiao*, Katerina Sam, Martin Volf, Leonard Jorge and Martin Moos	26 😊
10:45	Top-down regulation on daily activity patterns across tropical forest mammal communities Andrea Vallejo Vargas*	106 😊
11:00	Evolutionary and ecological history of allopatric avian populations in two Neotropical dry forests: the Caatinga and the Chaco Luciano Naka*, Maria Pil, Hevana Lima and Lays Viturino de Freitas	146 😊
11:15	Insular lizards as a model to study the importance of marine subsidies in islands of the Gulf of California, Mexico Ilse Barraza-Soltero*, Carmen Blazquez, Victor Muro-Torres and Salvador Hernández-Vázquez	193 😊
11:30	Insect-mediated pollen movement of an African canopy tree: Gene flow and potential pollinators of <i>Cylicodiscus gabunensis</i> Harms. Oriana Bhasin*, Olivier Hardy, Nicolas Vereecken, Jean-Louis Doucet and Saskia Sergeant	479 😊
11:45	Sexual selection meets resource ecology: the relationship between fruit distributions and male mating success in a lekking manakin H. Luke Anderson* and Jordan Karubian	639 😊
12:00	Biotic interactions and abiotic factors structure vertical seed movements and seedling survival: Can animals help tropical plants outpace climate change? Erin Kuprewicz* and Carlos Garcia-Robledo	287 😊
12:15	The interaction between the bacterial communities associated with an arboreal dominant ant and the tropical canopy phyllosphere Marília Bitar*, Aristóteles Góes-Neto, Luiz Marcelo Tomé, Fernanda Costa and Servio Pontes Ribeiro	814 😊

Population Dynamics and Regulation: Fauna I

Room: 303

Time	Presentation	
10:30	Honest signals in food competition: crop size and age influence contest rate but not its outcome in the king vulture Jade Legros, Sophie Calmé*, Patrice Bourgault and Yann Hénaut	38 ☺
10:45	Movement ecology and demography of ocelots in northern Pantanal Raissa Alves*, Fernando Tortato and Luiz Oliveira-Santos	717 ☺
11:00	Genetic diversity, phylogeny and biogeography in the tadpole shrimp <i>Triops granarius</i> (Branchiopoda: Notostraca) in Qatar Kuei-Chiu Chen*, Shehroz Rana, Hiba Naveed, Ateeque Mohamed Ali, Sara Tomerak, Ahmed Aly and Khalifa Bshesh	993 ☺
11:15	Recruitment Status of Sambar Deer (<i>Rusa unicolor unicolor</i>) in Horton Plains National Park, Sri Lanka Danushka Weerasekera*, Sandun Perera and Kithsiri B. Ranawana	31 ☞
11:30	Chromosome scale genome assembly and historical changes in the effective population size of two marine fishes from the Philippines Jordan Rodriguez*	643 ☞
11:45	Habitat suitability and population size estimates for the mongoose lemurs of Madagascar and Comoros and the implications for conservation Mohamed Thani Ibouroi*	22 ☞

Threats on Biodiversity, Species Conservation Status II

Room: 304

Time	Presentation	
10:30	Tracing pangolin trade origins and revealing illegal trafficking networks through next-generation sequencing Portia Wong*, Tracey-Leigh Prigge, Shelby McIlroy, Brian Worthington, Helen Nash, Gono Semiadi, Wirdateti, Tommy Lam, Caroline Dingle and Timothy Bonebrake	209 ☺
10:45	IMMINENT THREATS: The role of fire and cattle presence in a natural evergreen forest archipelago Juliana Kuchenbecker*, Frederico Neves, Fernando Silveira, Ricardo Solar, , Flavio Camarota and Luiz Macedo Reis	330 ☺
11:00	Hotspots of Threatened Plant Species in the Americas Moabe Fernandes*, Domingos Cardoso and Toby Pennington	395 ☺
11:15	Red List of ecosystems as a tool for decision making Doris Cordero*, Bernal Herrera and Gwendolyn Peyre	996 ☺



-14:00 to 16:00 hrs-

Communities: Spatio-temporal Patterns and Environmental Gradients III

Room: Arsenal

Time	Presentation	
14:00	The geographic range size and vulnerability to extinction of epiphytes in the Atlantic Forest of Brazil Tarciso Leão*, Peter Reich and Eimear Nic Lughadha	537 ☺
14:15	Flowering cues in a Costa Rican cloud forest: analyzing the effect of climate Steve Travers* and Ned Dochtermann	595 ☺
14:30	Desiccation risk responses in anurans of an extreme environment: the inselbergs in colombian Orinoquía Alexandra Delgadillo*, Adolfo Amezcuita, Mayra Avellaneda Moreno, Catalina Gonzalez and Ivan Gomez-Mestre	563 ☺
14:45	Phenology of woody climbing plants in two forest ecosystem types in Ghana Bismark Ofofu-Bamfo*, Patrick Addo-Fordjour, Ebenezer J. D. Belford, Emma Bush and Hans Verbeeck	886 🖥

Restoration Ecology: Plants, Animals Ecosystems IX

Room: Barahona 1

Time	Presentation	
14:00	Priority Areas for Forest Restoration in the Brazilian Amazon focusing on terrestrial biodiversity, carbon, and social benefits Raísa Vieira*, Bernardo Strassburg, Paulo Branco, Alvaro Irribarem, Agnieszka Latawiec, Carolina Salcedo, Diogo Rocha, Eduardo Lacerda, Luiz Gustavo Oliveira and Renata Capelião	597 ☺
14:15	Essential science advances for effective restoration of the world's forest landscapes Andrew Marshall*, Catherine Waite, Marion Pfeifer, Lindsay Flynn-Banin, Sarobidy Rakotonarivo, Susan Chomba and Robin Chazdon	974 ☺
14:30	Evaluation of neotropical trees and shrubs suitability for soil and water bioengineering: cuttings survival and growth Eléonore Mira*, Alain Rousteau, Régis Tournebize, Marie Robert and André Evette	710 ☺
14:45	Modeling landscape dynamics as a tool for identification of the likelihood of natural regeneration in Cerrado and Atlantic Forest Nathalia Aguiar* and Paulo Molin	576 🖥
15:00	Birds as important species in the restoration process: an integrative approach Caroline Ziade*, Tatiana Cornelissen and Cristiano de Azevedo	669 ☺

Functional Ecology: From Traits to Ecosystems III

Room: Barahona 2

Time	Presentation	
14:00	Interactions between functional leaf traits and foliar endophytes in the defense against natural enemies of tropical trees Bolívar Aponte*, Sunshine Van Bael and A. Arnold	358 ☺
14:15	The impacts of selective logging on traits of recovering seedling communities in Bornean tropical forests David Bartholomew*, Lucy Rowland, Paulo Bittencourt, Mohd. Aminur Faiz Bin Suis, Daisy Dent, Michael O'Brien, David Burslem and Lindsay Flynn-Banin	377 ☺
14:30	Root responses to water limitation in seedlings from dominant tropical Andean forest species Aura Cristina Restrepo, Laura Cano-Arboleda, Manuela Vasquez-Bedoya, Estela Quintero* and Juan Camilo Villegas	729 ☺
14:45	Vulnerability of Andean forest tree species to water limitation and its effect at ecosystem scale Laura Cano-Arboleda*, Manuela Vasquez-Bedoya, Aura Cristina Restrepo, David Arbelaiz, Estela Quintero and Juan Camilo Villegas	786 ☺
15:00	Traits to cope with drought: Functional responses to water limitation in five native tropical Andean seedlings Manuela Vasquez-Bedoya*, Laura Cano-Arboleda, Aura Cristina Restrepo, Juan Camilo Villegas and Estela Quintero	792 ☺
15:15	Abiotic drivers have shaped trait evolution and trait-environment matching in a Neotropical radiation (Swartzia, Fabaceae) Francisco Velásquez Puentes*, Benjamin Torke, Alexander Zizka, Christopher Barratt and Renske Onstein	222 ☺
15:30	Functional distributions patterns of plants in tropical dry forest of La Guajira, Colombia Fabián Garzón Ramos*, Roy Gonzalez-M. and Laura Salinas	867 ☺
15:45	Contrasting community assembly mechanisms drive regeneration in Caribbean tropical dry forest following clearcutting and fire Tristan Allerton*, Skip Van Bloem and Peter Murphy	301 ☺

Conservation Planning, Management, Practice: Animal II

Room: Barahona 3

Time	Presentation	
14:00	Understanding interactions between people, elephants and fires in the miombo woodlands of Niassa Special Reserve in support of conservation action Natasha Ribeiro*	179 ☺
14:15	Conservation genomics of the Andean bear, Tremarctos ornatus, in Colombia: implications for management species at risk of extinction Paola Pulido-Santacruz*, Adam Ciezarek, Juan-Camilo Chacon-Duque, Mailyn Gonzalez, Wilfried Haerty, Federica Di Palma, Selina Brace and Ian Barnes	828 ☺
14:30	The role of riparian communities in cross-scalar policies for freshwater ecosystems conservation in the Peruvian Amazon Tania Romero Bautista* and Elizabeth Anderson	856 ☺
14:45	Plastic ingestion in giant tortoises: a novel threat to wildlife conservation in the Galapagos Islands Ainoa Nieto Claudin* and Santiago Ron	971 ☺
15:00	Integrating social and ecological dimensions for better conservation decisions Katia Maria Ferraz*, Silvio Marchini, Juliano Bogoni, Roberta Paolino, Marcelo Magioli and Adriano Chiarello	762 ☺
15:15	Fish can be Charismatic Megafauna, Too: <i>Arapaima</i> spp. as a Flagship Species in the Colombian Trapezium Elizabeth Anderson, Natalia Piland and Ana Rojas*	982 ☺
15:30	Piscilago: a relevant actor in the conservation of the Orinoco crocodile and the white-footed tamarin Sandra Sarmiento Patiño and David Ossa*	983 ☺

Habitat Structure, Fragmentation, Connectivity: Fauna

Room: 201

Time	Presentation	
14:00	Habitat fragmentation increases the probability of the alien wild boar (<i>Sus scrofa</i>) invasion in agroecosystems Viviane Brito Dias*, André Regolin, Felipe Martello, Gabrielle Beca, Laís Lautenschlager Rodrigues, Rita Bianchi and Mauro Galetti	583 ☺
14:15	Past landscape configuration at different scales best describes current distribution of South American foxes Rumaan Malhotra*, Jaime Jiménez and Nyeema Harris	680 ☺
14:30	Ecologically similar lemur species are more likely to co-occur within a fragmented landscape in south-eastern Madagascar Zachary Jacobson*, Pamela Narváez-Torres, Nicola Guthrie, Devin Chen, Olivia Tiajinjaka, Typhenn Brichieri-Colombi, Edward E. Louis, Jr and Steig Johnson	892 ☺
14:45	Habitat use by jaguars (<i>Panthera onca</i>) at EARTH University, Costa Rica, in the Parismina River Biological Corridor Amanda Wendt*, Diana Hernández Gómez, Adolfo Artavia Rodríguez, Esteban Brenes-Mora and Carlomagno Soto Castro	935 ☺

Population Dynamics and Regulation: Fauna III

Room: 303

Time	Presentation	
14:00	Preliminary evaluation of the population of <i>Podocnemis unifilis</i> river turtles within Matsigenka territory in the Manu headwaters of Southwest Amazon Roxana Arauco-Aliaga*, Omar Rodríguez-Bravo, Cesar Flores-Negrón and Ronald Swaisgood	869 ☺
14:15	Introducing RangeShifter as a tool for landscape and population ecology in the tropics Justin Travis*, Greta Bocedi, Tamsin Woodman, Cristina Rueda-Urbe and Julian Perez	855 ☺
14:30	Genomic analyses reveal loci potentially associated with local adaptation in the endangered black lion tamarin (<i>Leontopithecus chrysopygus</i>, Primates) Patricia Freitas*, Paola Ayala-Burbano, Carolina Carvalho, Gabriela Rezende, Laurence Culot and Pedro Galetti	954 ☺

Threats on Biodiversity, Species Conservation Status III

Room: 304

Time	Presentation	
14:00	Chemical tracing of timber origin: From global to regional scales Laura Boeschoten*, Pieter Zuidema, Ute Sass-Klaassen and Mart Vlam	481 ☺
14:15	The vulnerability of freshwater fishes to expanding oil fields in the Amazon Lauren Emer*, Thiago Couto, Mariana Montoya and Elizabeth Anderson	485 ☺
14:30	Biological Correlates of Extinction Risk in Resident Philippine Avifauna Kyle Kittelberger*, Monte Neate-Clegg, J. David Blount, Mary Rose Posa, John McLaughlin and Cagan Sekercioglu	968 ☺

Monitoring Biodiversity II

Room: Secretaría

Time	Presentation	
14:00	Does low-carbon footprint mean low-biodiversity impact? Assessing Yucatan Peninsula logging with soundscapes Tatiana Maeda*, Peter Ellis and Zuzana Burivalova	308 ☺
14:15	Bioacoustic monitoring reveals an increase in illegal logging within the threatened Pacific Forest of Ecuador during COVID-19 lockdowns Jacquelyn Tleimat*, Sarah Fritts, Rebecca Brunner, David Rodriguez, Ryan Lynch and Shawn McCracken	328 ☺
14:30	Breaking barriers of knowledge through monitoring a tropical dry forest Maria Gonzalez*, Nathalie Baena-Bejarano, Andrés Lugo de la Hortúa, Fabian Zapata Sierra, Jimena Ramírez Loaiza, José Cuellar Cardozo, Laura Pabón Huertas, Mónica Rosas, Zaira Gómez Mesa, Paula Bohorquez, Alejandra Rendón, Viviana Pacheco, Wilber Lopez, Víctor Ardila, Nicolás Gutierrez, Julián Cardona, Mateo Carvajal, Natalia Aristizabañ, David Bulla, Oscar Prieto-Rodado, Viviana Castañeda, Kelly Dussan, Camilo Dussan, María Cabrera, Nancy Morea, Alex Lasso, Alain Dussan, Jamir Díaz, Yurani Medina and Mailyn Gonzalez	890 ☺
14:45	Using Soundscapes to Assess Impacts on Biodiversity in Nature Tourism Destinations of Colombia Diego Lizcano*, Carlos Pedraza, Laura Romero, Camila Ariza, Mario Abaunsa, Tomaz Melo and Marconi Campos-Cerqueira	936 ☺
15:00	The complex of cryptic species complexes: adapting to a changing landscape in citizen science Arjun Kamdar*	688 ☺

Social Events



Happy birthday, BCI! Help STRI plan upcoming Centennial celebrations

12:30 - 13:45 hrs (During the lunch break), Room: Secretaría

Calling BCI friends and alumni! Join STRI staff to discuss the upcoming BCI Centennial Celebration! We're eager to hear your suggestions and catch up with old friends. In 1923, Barro Colorado Island became a biological preserve. In this gathering, BCI friends and alumni will brainstorm ways that we can celebrate BCI's Centennial in 2023-2024. Please grab a bag lunch and join staff from the Smithsonian Tropical Research Institute for what's sure to be a lively and fun discussion.



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