

SIMPOSIO S-PIF-11

BIRD CONSERVATION THROUGH GREEN INVESTMENTS - CREATING EFFECTIVE BIRDSCAPES FOR MIGRATORY BIRDS

S-PIF-11-01. INTRODUCTION TO GREEN INVESTMENTS AND BIRDSCAPES

PRESENTACION DE INVERSIONES VERDE Y “BIRDSCAPES”

*Andrew Rothman, EJ Williams, Mike Parr
American Bird Conservancy; 4249 Loudoun Ave, The Plains, VA, USA 20198

American Bird Conservancy is launching BirdScapes, a new approach to conserve migratory birds across the Western Hemisphere. These landscape-scale areas provide, or could provide, habitats that sustain or recover one part of the annual life-cycle of migratory birds. Generally 75,000 to 1 million ha in size, BirdScapes are landscapes critical as breeding, wintering, or stopover habitats and where conservation actions can have measurable results. To impact the number of acres required to sustain the great phenomenon of migration, and reverse the decline of many migratory bird species BirdScapes require many partners who share a commitment to conservation actions at a landscape level. This includes nonprofit, commercial, and government involvement in helping to accomplish BirdScape goals. BirdScapes may include pristine core habitat, areas that need restoration, critical areas under threat of conversion, and areas in production that can be managed to contribute to conservation objectives. The development of bird friendly production systems can facilitate an opportunity for non-traditional financing for conservation projects. At the moment, many financial institutions and funds exist that are looking to invest in quality production systems that provide a return on investment and provide additional benefits for their investors such as protection of biodiversity, sequestration of carbon, and poverty alleviation; often know as Green or Impact Investments. With initiatives like the Bonn Challenge, and the related 20x20 Initiative, and government commitments to the Paris Accord and the Convention on Biological Diversity, the time is right to integrate landscape level conservation with impact investments.

S-PIF-11-02. THE CONSERVATION COAST™: EXPERIENCES IN DEVELOPING CONSERVATION INVESTMENTS IN A BIRDSCAPE

LA COSTA DE CONSERVACION™: EXPERIENCIAS EN EL DESARROLLO DE INVERSIONES DE CONSERVACION EN UN BIRDSCAPE

Marco Cerezo, *Alexis Cerezo, Ingrid Arias, Germanico Barrios
FUNDAECO; 25 calle 2-39 zona 1 01001, Ciudad Guatemala, Guatemala C.A.

For 27 years, FUNDAECO has promoted the declaration and management of protected areas in Guatemala. In particular, FUNDAECO's work in the Caribbean region of Guatemala has led to some of the most successful habitat protection and community engagement in the country. The success of this work has been the result of using a wide variety of conservation and socio-economic development tools. This includes private and public reserve creation, protection and management, agroforestry product chain development and production, the use of government payment for environmental services programs for forest protection, the development of carbon sequestration credits, and the creation of rural health clinics. FUNDAECO, in collaboration with the American Bird Conservancy, is continuing to promote habitat restoration within or outside existing protected areas, in order to support sustainable production systems that contribute to the creation of migratory birds' habitat, restore habitat and increase the economic benefits for local producers at a landscape level within The Conservation Coast Birdscape. This project can become a model for landscape management that integrates migratory bird conservation while improving opportunities for producers and communities, and activates the local economy.

S-PIF-11-03. RANCHING, WATER AND BIRDS: HOW IMPROVING CATTLE MANAGEMENT AND WATER AND LAND USE POLICY CAN GROW BIRD HABITAT

GANADERIA, AGUA Y AVES: COMO CAMBIOS DE MANEJO DE GANADO, AGUA Y POLITICAS PUEDE PRODUCIR HABITAT PARA AVES

*Mauricio de la Maza, Iris Banda, Adrian Varela

Pronatura Noreste A.C., Calle Loma Larga #235, Colonia Loma Larga, Monterrey, Nuevo León, 64710, MÉXICO

The Chihuahuan Desert of northern Mexico is a continentally important wintering area for grassland birds; the most rapidly declining group of birds in North America. More than 90% of migratory grassland bird species breeding in western North America spend at least half their life cycle concentrated in the limited grasslands of the Chihuahuan Desert region. Some species, like Baird's Sparrow, occur nowhere else in winter. Although people in the Chihuahuan Desert have a long history of sustainable ranching on desert grasslands, a large portion of the grasslands once found in this arid region has been lost through conversion to cropland, shrub encroachment and desertification. In the Valles Centrales Grassland Priority Conservation Areas (GPCA) cropland increased by 69% between 2006 and 2010 destroying 2452 km² of grasslands and displacing an estimated 1,000,000 grassland birds (Bird Conservancy of the Rockies, 2012). The factors behind the agricultural expansion are complex, but are tied in part to a prolonged drought and over grazing which have reduced grassland productivity and strained ranchers financially. To address these issues ProNatura Noreste and partners have taken a direct approach to working with ranchers to improve cattle rotational management practices, improve water distribution, address sources of erosion and treat shrub encroachment. However, these activities alone will not address the advancing threat of agricultural expansion. As such ProNatura Noreste is working with local authorities to review and improve water use permits and land use regulations as a tool to support grassland habitat loss avoidance (keeping the "greenside up") and keep long-time ranchers financially solvent and purveyors of good grassland habitat for wildlife, including migratory birds. In doing so ProNatura Noreste has been able to influence the use of nearly 100,000 hectares of ranchlands since 2013.

S-PIF-11-04. INITIATIVE 20X20: REGIONAL EFFORTS ON PRODUCTIVE RESTORATION FOR IMPROVING MIGRATORY BIRD HABITAT CONSERVATION

INICIATIVA 20X20: ESFUERZOS REGIONALES EN RESTAURACIÓN PRODUCTIVA PARA MEJORAR LA CONSERVACIÓN DE HÁBITAT PARA AVES MIGRATORIAS

*René Zamora-Cristales, Walter Vergara

World Resources Institute, 10 G Street NE Suite 800, Washington, DC 20002, USA

Latin America is a biodiversity-rich region, counting with 6 Mega-diverse countries (Mettemeier and Mettemeier, 1997) and substantial wilderness and protected areas. In terms of avifauna, the region is home to over 3000 species including a substantial fraction of all migratory species. Regrettably, this unique natural capital is being threatened by land degradation including deforestation. In 2104, about 3.4 Million ha of forests and savannah were deforested (Hansen, 2015), equivalent to about 70% of the land area of Costa Rica. Since the beginning of the century, about 31 Million ha of natural biomes was converted into agriculture and cattle ranching lands. With the change of land use and the concomitant land degradation process, biodiversity, soil and water quality and carbon stocks are negatively affected. Initiative 20x20 is a country-led effort to bring under restoration 20 million hectares of degraded land by 2020. This country-led platform is the largest regional movement supporting the Bonn Challenge effort of restoring 150 million hectares worldwide. Currently, 16 countries including three states in Brazil have pledged more than 50 million hectares to restore. In addition to that private sector partners have earmarked 1.5 billion USD to invest in productive restoration across the region. Also, technical assistance is provided to the countries, through more than 30 technical partners that are helping the countries with capacity development and research to achieve their restoration targets. Countries are developing on plans and strategies to support restoration ambitions with special priority

on rehabilitating the functionality of the land to improve livelihoods, biodiversity and provide sustainable financial resources to landowners. Private partners, financial institutions and technical partners are working together to unlock private investments in lands restoration using different mechanisms. These mechanisms include the deployment of a partial risk mitigation guarantee, the structuring of an investment readiness fund to prepare potential restoration projects to be investment ready and the use of high valuable forest species (from commercial and biodiversity point of view) as collateral to allow landowners to access to credits. A number of opportunities for land restoration that focus on the quality of bird habitat, including those for migratory species are being considered as part of the portfolio of restoration investments under the initiative. All these efforts, once implemented, will contribute to sustainably restore degraded habitat for migratory species as well as produce goods from restored lands that provide income to people depending on them.

S-PIF-11-05. HOW DOES GREEN INVESTMENT WORK?

COMO FUNCIONA INVERSIONES VERDES?

*Juan Carlos Gonzalez Aybar and Sylvain Goupille

Althelia Ecosphere, Ecosphere Capital Partners LLP, 7 Chalcot Road (Unit 2), Primrose Hill, London NW1 8LH

“Green Investment” is a term that can often be heard in today’s conservation lexicon. However, the term “Green Investment” or “Impact Investment” may not be fully understood by conservationists, and how these non-philanthropic funding opportunities work and could work for conservation may not be fully understood by conservationists seeking funding. Juan Carlos Gonzalez Aybar, the Latin American Director of Althelia, a company that makes investments in projects that provide financial return as well facilitate conservation outputs, will present information on how Green Investments work by presenting their experiences working in Tambopata National Reserve in Peru. He will also provide recommendations for developing investment based projects including providing information on technical terms use in investment projects.

S-PIF-11-06. RECOGNIZING CONSERVATION PROJECTS INTO THE SUPPLY CHAIN

RECONOCIENDO PROYECTOS DE CONSERVACION EN CADENAS DE VALOR

*Ana Lopez¹, Curan Bonam²

Conservation International, ¹San Jose, Costa Rica; ²2011 Crystal Drive, Suite 500, Arlington, Virginia 22202

Sustainability relies frequently on the supply side of the equation – farmers – to ensure compliance with or promotion of certain practices on economic, social and environmental dimensions. At the same time, the demand side – buyers – are interested in addressing sustainability from different angles, which might include the use of verification/certification schemes, direct investments in suppliers or incentive schemes to promote more philanthropic initiatives such as conservation or human well-being. The last one represents an opportunity to insert conservation projects into the supply chain to ensure proper recognition of its costs through pricing mechanisms or support financing alternatives to complement traditional funding for projects. Ana López from Conservation International will provide some introductory information on different approaches used in the coffee supply chain to promote recognition of conservation efforts into the market.

S-PIF-11-07. DISCUSSION

S-PIF-08. CORREDORES DE CONSERVACION EN REGIONES CAFETERAS DE COLOMBIA

CONSERVATION CORRIDORS IN COFFEE GROWING REGIONS OF COLOMBIA

*Rocio Espinosa Aldana, Andrés M. López, Raúl J. Hernández

Centro Nacional de Investigaciones de Café – CENICAFE

Sede Planalto, km. 4 vía Chinchiná-Manizales. Manizales (Caldas), Colombia

Desde el año 2012 se ha puesto en marcha un modelo de intervención en siete (7) microcuencas a lo largo de siete departamentos de la zona cafetera de colombiana, que tiene como objetivo mejorar el manejo de la biodiversidad por parte de los agricultores a través de la implementación de un modelo multi-dimensional denominado “Construyendo un corredor de conservación en nuestra región cafetera” que comprende la implementación de herramientas de manejo del paisaje (HMP) y un sistema integrado de gestión en buenas prácticas agrícolas en las fincas de los caficultores que se encuentran en las áreas seleccionadas. Mediante la siembra de especies nativas en arreglos espaciales en las fincas cafeteras (HMP) se busca fortalecer la conectividad ecológica, mejorar de la calidad de hábitat y promover la conservación de la biodiversidad. El sistema integrado de gestión en buenas prácticas agrícolas en las fincas, ayuda a los agricultores a mejorar la forma en que realizan las actividades mejorando las condiciones de las microcuencas, descontaminándolas, protegiéndolas y reduciendo la erosión. Adicional a esto, se desarrolla un programa de educación dirigido a generar conciencia y ética ambiental, a fortalecer el conocimiento en prácticas de conservación del medio ambiente y a promover prácticas sostenibles entre los agricultores y la comunidad que hacen parte de la microcuenca. De esta manera, se busca que las microcuencas en donde se construyen los corredores sean unos verdaderos modelos a seguir en otras regiones cafeteras.

Since 2012, a model of intervention in seven (7) micro-watersheds has been implemented throughout seven departments of the Colombian coffee zone, which aims to improve the management of biodiversity by farmers through the implementation of a multidimensional model called "Building a conservation corridor in our coffee region", which includes the implementation of landscape management tools (HMP) and an integrated management system for good agricultural practices on coffee farmers' farms located in the areas selected. The planting of native species in spatial arrangements on coffee farms (HMP) seeks to strengthen ecological connectivity, improve habitat quality and promote biodiversity conservation. The integrated management system for good farming practices on farms helps farmers improve the way they do activities by improving the conditions of micro-watersheds, decontaminating them, protecting them and reducing erosion. In addition to this, an education program aimed at generating environmental awareness and ethics is developed, to strengthen knowledge on environmental conservation practices and to promote sustainable practices among farmers and the community that are part of the micro-watershed. In this way, it is sought that the micro-watersheds where the corridors constructed are true models to be followed in other coffee regions.

S-PIF-11-09. DESIGN AND IMPLEMENTION OF MARKET-BASED, SCALABLE MECHANISM FOR FOREST CONSERVATION IN THE COFFEE GROWING REGIONS OF CENTRAL AMERICA

DISEÑO E IMPLEMENTACIÓN DE MECANISMOS BASADOS EN MERCADOS Y ESCALABLES PARA LA CONSERVACIÓN DE BOSQUES EN LAS REGIONES DE CRECIMIENTO DE CAFÉ DE CENTROAMÉRICA

Raul Raudales¹, Richard Trubey¹, and *David King²

¹Mesoamerican Development Institute, Alumni Hall Room B3, University of Massachusetts Lowell, Lowell, Massachusetts, USA

²US Forest Service Northern Research Station, 201 Holdsworth Hall, University of Massachusetts Amherst, Amherst, Massachusetts, USA

A newly adopted approach to coffee cultivation "Integrated Open Canopy™" (IOC) is a land-sparing system of coffee cultivation in which an area of forest equal or greater to the area of cultivated coffee is conserved or restored. Forest conservation supports birds like the Golden-winged Warbler that are scarce or absent from the commercial polyculture coffee systems typical of Central America. Incentives for the adoption of IOC include increased coffee yields as well as revenue from the sale of carbon offsets from carbon sequestered in the forested portion of the IOC farm. Greenhouse gas validation/verification is realized through NERC2carbon™, an entity being established by the University of Massachusetts and the National Autonomous University of Honduras. Coffee is dried using hybrid solar/biofuel technology, which eliminates the deforestation associated with harvesting

fuelwood for drying used in conventional processing operations. These practices, which together comprise "The Yoro Model," are being implemented at the COMISUYL coffee cooperative in Subirana, Honduras. In addition to conserving forest, the Model is developing skilled employment in renewable energy and carbon certification for rural communities. The establishment of the 6,000 km² Yoro Biological Corridor provides a medium to scale these practices up to the regional level, which will contribute to Honduran commitments to the Paris Climate Accords (reducing the use of firewood by 39%; and conserving or restoring 1 million hectares of forest). The first sale of carbon offsets through the program was completed in April of 2017 with Bewley's Coffee in Ireland purchasing both the carbon offsets and a significant portion of the coffee (Café Solar®) from Fair Trade cooperative, COMISUYL. By integrating forest conservation into coffee cultivation and processing and linking these practices to the Yoro Biological Corridor as a means of dissemination across the, this initiative will overcome barriers to conserving tropical forest within a market-based framework.

S-PIF-11-10. CACAO-BASED AGRO-FORESTRY AS AN ECONOMIC INCENTIVE FOR CONSERVING AND RESTORING MIGRATORY BIRD HABITAT IN BELIZE

AGRO-FORESTAL BASADO EN CACAO COMO INCENTIVO ECONÓMICO PARA CONSERVAR Y RESTAURAR EL HÁBITAT MIGRATORIO DE AVES EN BELICE

*Jacob A. Marlin and Heather A. Barrett

Belize Foundation for Research and Environmental Education (BFREE) Mile 58, Southern Hwy, BFREE Reserve, Toledo District, Belize C.A., jmarlin@bfreebz.org, hbarrett@bfreebz.org

Since 2006, deforestation in Belize has accelerated primarily due to population growth and an expanding agricultural industry, having negative effects on over-wintering migratory birds and their habitat. Migratory bird habitats once protected by law under the National Protected Areas System have been de-reserved in order to allow for agricultural use, primarily for recent immigrants from within Central America. Farmers clear the forest and plant whatever seems to be the most economically profitable venture at the time, often planting pineapple, citrus, corn, beans, bananas, plantain or sometimes creating pasture lands for cattle. An alternative to these types of land uses is organic shade grown cacao within an agro-forestry system. The recent development of the Fine Flavour Chocolate Industry and the growing demand for fine flavour cacao provides an economic opportunity for farmers to reap the benefits of a growing market. Fine flavour cacao requires significant shade unlike bulk flavourless full-sun cacao, which comprises over 90% of the world's cacao market. Fine flavour cacao also brings a significantly higher price. Investment in this growing industry could create significant benefits to people while restoring tropical forests where migratory birds stop-over and over-winter.

S-PIF-11-11. EXPERIENCES IN DEVELOPING AGROFORESTRY AND TROPICAL FOREST MANAGEMENT

EXPERIENCIAS EN PROYECTOS AGROFORESTAL Y CON GESTIÓN FORESTAL TROPICAL

*Juan Bronson and Andrew Miller

IZABAL AGRO-FOREST; www.izabalagroforest.com

We will present a case study about our experience managing native-species agroforestry systems in Central America. The management philosophy is based on two fundamental aspects; 1) Managing its land for its potential, in other words designing agroforestry systems based on the lands suitability to grow particular species and 2) Using biodiversity to mitigate biological and financial risk. Protecting existing natural forest is a critical aspect of habitat conservation however sustainable land management of commercial investments is just as important. Given population growth and demand for food, (and meat in particular) we need to convince land owners that biodiversity and use of native species trees & plants does not equate a non-profit

endeavor; our company manages large agroforestry efforts that demonstrate a healthy relationship between profitability and environmental responsibility.

S-PIF-11-12. COMPARACIÓN DE LA ABUNDANCIA DE AVES MIGRATORIAS EN PLANTACIONES FORESTALES Y BOSQUES SECUNDARIOS EN GUATEMALA

A COMPARISON OF NEOTROPICAL MIGRANT SONGBIRD ABUNDANCE OCCUPYING TREE PLANTATIONS AND SECONDARY FORESTS IN GUATEMALA

*Bianca Bosarreyes^{1,2}, Wendy Leuenberger³, Kirsten Johnson¹, Ruth Bennett⁴, Alejandro Sagone¹, Fabiola Rodríguez¹, and Jeffery Larkin^{1,5}

¹Indiana University of Pennsylvania-Research Institute, 1179 Grant St. Indiana, PA 15705, USA; ²Universidad de San Carlos de Guatemala, latticeb@hotmail.com; ³State University of New York, College of Environmental Science and Forestry, 1 Forestry Drive, Syracuse, NY 13210, USA; ⁴Cornell University, 111 Fernow Hall, Ithaca, NY 14850, USA; ⁵American Bird Conservancy, The Plains, VA 20198, USA

La pérdida y la fragmentación de hábitat causada por la transformación de la tierra en el neotrópico es la principal amenaza para las aves migratorias. La conservación efectiva dependerá de la identificación de oportunidades en las áreas productivas (tierras de trabajo). Comprender la relación entre los diferentes tipos de cobertura y las aves migratorias es clave para mejorar las estrategias de conservación. Se evaluó la abundancia y riqueza de aves migratorias en 300 puntos en seis tipos de cobertura en tierras bajas de Izabal, Guatemala: sistema forestal maderable (n = 29), plantaciones de hule (n = 60), teca (n = 50), palma africana (n = 62), agroforestería (n = 39) y bosques secundarios (n = 60). Se realizaron muestreos de avifauna y vegetación entre enero-marzo (2016) y noviembre-marzo (2016 -2017). Se registraron 6,861 detecciones representando 43 especies, incluyendo cinco especies prioritarias: *Vermivora cyanoptera*, *V. chrysoptera*, *Helmitheros vermivorum*, *Geothlypis formosa*, *Hylocichla mustelina*. La riqueza de especies migratorias en cada tipo de cobertura varió de 26 spp. (palma africana) a 36 spp. (hule). Las plantaciones agroforestales y bosques secundarios tuvieron la mayor abundancia de aves migrantes prioritarias, pero los bosques tuvieron la menor abundancia de migratorias en total. La palma africana tuvo la mayor abundancia de aves migratorias, pero la menor abundancia de migrantes prioritarias. Varias medidas de la estructura vegetativa, como la altura del árbol más alto, cobertura del dosel y densidad del sotobosque influyeron en la abundancia total de migratorias y migrantes prioritarias dentro de cada tipo específico de cobertura. Los resultados sugieren que todos los tipos de cobertura proporcionaron hábitat invernal en cierta medida. Continuar con la evaluación de impactos y beneficios asociados a los tipos de tierras de trabajo es imprescindible para desarrollar una estrategia de conservación adaptable para un paisaje cambiante que necesita de producción y desarrollo económico.

Habitat loss and fragmentation due to land conversion in the Neotropics is the primary threat to migratory birds. Effective conservation will rely on identifying opportunities on production-based lands (working lands). Understanding relationships between working lands cover types and migrant birds is key to improving conservation strategies. We assessed abundance and species richness of Neotropical migrant songbirds in tree plantations, agroforests, oil palm, and secondary forests in lowlands around Izabal, Guatemala. A total of 300 points were surveyed across sites that represented six cover types: mixed native hardwood plantations (n=29), rubber plantations (n=60), teak plantations (n=50), oil palm (n=62), agroforest (n=39), and native secondary forests (n=60). We conducted avian point count and vegetation surveys between January-March, 2016 and Nov. 2016-March 2017. We recorded 6,861 detections representing 43 Neotropical migrant species including five priority species: Golden-winged Warbler, Blue-winged Warbler, Worm-eating Warbler, Kentucky Warbler, and Wood Thrush. Migrant species richness within each cover type ranged from 26 spp. (oil palm) to 36 spp. (rubber). Agroforests and secondary forests had the highest abundance of priority migrants, but secondary forests had the lowest abundance of migratory birds as a whole. Oil palm had the highest abundance of migratory birds, but the lowest abundance of priority migrants. Several measures of vegetative structure such as height of tallest tree, canopy cover, and understory density influenced total migrant and priority migrant abundances within specific cover types. Details regarding cover type-specific relationships between migrant bird abundance and vegetation structure will be discussed. Our results suggest that all of the

cover types included in our study provided wintering habitat for migrant songbirds to some extent. Continuing to evaluate the impacts and benefits associated with working lands cover types is imperative for developing an adaptive conservation strategy for a changing landscape with an ever-growing need for production and economic development.

**S-PIF-11-13. INTERNATIONAL AGREEMENTS FOR THE RESTORATION OF LANDSCAPES:
DILEMMAS AND OPPORTUNITIES FOR THE CONSERVATION OF BIRDS**

**ACUERDOS INTERNACIONAL PARA LA RESTAURACION DE PAISAJES: DILEMAS Y
OPORTUNIDADES PARA LA CONSERVACION DE AVES**

Roger Villalobos
CATIE, Cartago, Turrialba 30501 Costa Rica

Restoration, as a global priority, and as a responsibility to be assumed by the governments of the countries, has been mentioned at the level of international discussions and agreements with a significant degree of ambiguity, in its definition and focus. The Brundtland report of 1987 mentions both an approach to restoring agricultural productivity and favoring regeneration of vegetation. In the Rio 92 declaration, emphasis was placed on forest elements: rehabilitation, afforestation, reforestation, and recovering "goods and services from forests, forest lands and woodlands". The current Sustainable Development Goals speak of restoring the sustainable use of ecosystems, halting land degradation and loss of biodiversity. The emphasis on the recovery of goods and services for human well-being has also been reflected in many of the processes around the Bonn challenge and the 20x20 initiative for Latin America. This means that not all public effort or private initiative of restoration, directly and clearly entail an improvement for the recovery of biodiversity or connectivity for life forms such as birds. Restoration priorities already identified in several countries, such as improvements in soil fertility, quality of pasture and forage, or in agricultural or wood or firewood production, may only indirectly lead to the conservation of birds. Therefore, it is important to incorporate into the speeches and restoration processes, topics such as: markets for products that are friendly to birds; Processes of restoration of landscapes with a vision of ecological functionality and connectivity; Awareness of the role of birds as a facilitator of natural restoration by the transport of seeds; The relevance of considering functional characteristics that favor birds in the selection of species for restoration programs; The incorporation of birds into local environmental assessment programs (taking into account their visual appeal and ease of monitoring); The bird as a captivating element, for tourist attraction or motivation to local actors.

**S-PIF-11-14. PAYING FOR ECOSYSTEM SERVICES TO SUPPORT HABITAT CONSERVATION IN
THE YUCATAN PENINSULA**

**PAGANDO LOS SERVICIOS AMBIENTALES PARA APOYAR LA CONSERVACIÓN DE HÁBITAT EN
LA PENINSULA DE YUCATÁN**

*Gonzalo Merediz, Liliana García Ramírez, Aarón Hernández Siller
Amigos de Sian Ka'an A.C., Cancun, Quintana Roo, Mexico

The Yucatan Peninsula is home to over 555 bird species. Of these bird species, there are literally billions of individual migrants that cross the Gulf of Mexico to and from the Yucatan Peninsula. This makes the Yucatan one of the most important areas for migrating birds in all of the Neotropics. However, urban sprawl especially near Cancun, the largest tourism destination in Latin America, is rapidly eroding migratory bird habitat. Fires, set mostly illegally are also one of the biggest threats in the region. Effective conservation activities and the expansion of protected areas is necessary. Amigos de Sian Ka'an is taking policy action to create new public and private protected areas covering over 1.2 million hectares, while providing funds to landowners to protect valuable wildlife habitat. Amigos de Sian Ka'an has negotiated with hotel owners in and around Cancun and the Riviera Maya to request a small donation from visitors to put toward an

Environmental Service Payment Fund that is then used to provide landowners with forest cover financial support to keep their land in forest. The National Forestry Commission (CONAFOR) provides a 1:1 matching fund. Additionally, Amigos de Sian Ka'an is working with the Quintana Roo state government to include a small fee in the water bill to cover the ecosystem service cost, as the forest cover that remains on the peninsula helps filter and provide fresh water for the communities of region. US\$357,000 have been paid or committed protecting 2,500 hectares of private or communal lands with key bird habitat. Although the goal is to create an ecosystem service trust, political changes and reduced public budgets have delayed the process.

S-PIF-11-15. MULTI-OBJECTIVE BUSINESS MODELS FOR SECONDARY FOREST MANAGEMENT

MODELOS DE NEGOCIOS MULTI-OBJETIVOS PARA EL MANEJO FORESTAL SECUNDARIO

Jean Pierre Morales
CATIE, Cartago, Turrialba 30501 Costa Rica

Tropical secondary forests provide important habitats for biodiversity including migratory birds. They also present a unique and relatively underdeveloped opportunity for forest management. CATIE has been studying secondary forest management and restoration. They are currently working with entities interested in developing and implementing timber management business models that can support biodiversity conservation while also providing a sustainable revenue. Jean Pierre Morales of CATIE will present information on his work developing multi-objective business models for secondary forest management.

S-PIF-11-16. ENVIRONMENTAL SERVICE PAYMENTS FOR BIODIVERSITY: A NEW PROGRAM IN COSTA RICA

PAGOS DE SERVICIOS AMBIENTALES PARA LA BIODIVERSIDAD: UN NUEVO PROGRAMA EN COSTA RICA

*Silvia Rojas Fernandez and Carlos Manuel Rodriguez
Conservation International, San Jose, Costa Rica

Costa Rica has been the world's leader in the development of Environmental Service Payment programs, and offsetting the countries fossil fuel use. In Costa Rica their Environmental Service Payment Programs (Pagos por Servicios Ambientales – PSA) provide funding from tax revenues and other national legislation, for reforestation, forest protection and agroforestry. Since 1996 Costa Rica through the National Forest Fund has been able to provide \$30 million per year into more than 7thousand contract with small farmers and indigenous communities covering around 400.000 hectares y key biodiversity areas. In 2016 Costa Rica with the support of GEF, KWF, Blue Moon and CI created the biodiversity fund which now has a \$22 million trust fund to support the conservation of biodiversity. The program will target specific focal species including the Golden-winged Warbler, a species that has had specific wintering ground focal areas for conservation identified as part of the species full-life cycle conservation plan as development by the Golden-winged Warbler Working Group and the Alianza Alas Doradas. Manuel Ramirez, will provide an update on the successes and outputs of Costa Rica's renowned PSA program, and will introduce the new proposed program for biodiversity conservation in Costa Rica.

S-PIF-17. CLOSING DISCUSSION