#### CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA



Sixty-fifth meeting of the Standing Committee Geneva (Switzerland), 7-11 July 2014

IGUANA WORKSHOP - FINAL REPORT

This information document has been submitted by the Management Authority of the United States of America, in relation to agenda item 27 on *Enforcement matters*.

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### PLANNING AND IMPLEMENTATION OF AN INTERNATIONAL MEETING IN PUERTO RICO FOR THE CONSERVATION OF CARIBBEAN IGUANAS (CYCLURA SPP. AND IGUANA SPP.).

Island Conservation Final Report to the U.S. Fish and Wildlife Service

Cooperative Agreement: # F13AC00146 March 01, 2013 to December 31, 2013.

### I. <u>PURPOSE OF THE AGREEMENT</u>

The Cooperative Agreement F13AC00146 was implemented to support the planning and implementation of an international meeting in Puerto Rico for the conservation of Caribbean Iguanas (*Cyclura* spp. and *Iguana* spp.). The agreement enabled Island Conservation (hereinafter referred to as the contractor) to jointly plan and implement the meeting together with: the U.S. Fish and Wildlife Service (the Service), the Commonwealth of Puerto Rico Department of Natural and Environmental Resources (DNER), and the San Diego Zoo Global Institute for Conservation Research (SDZG) (hereinafter referred to as the 'Project Partners').

Specifically, Island Conservation managed funds allocated by the Service to support the meeting participants and sponsored invitees including coordinating travel and accommodation, and allocation of stipends and other financial support for invited participants.

### II. STATEMENT OF THE PROBLEM

Collectively, the Caribbean iguanas (family Iguanidae) are the most endangered group of lizards in the world. The principal threats to their survival are habitat loss (especially subtropical dry forest and coastal habitats), and impacts from invasive mammals, including rats, mongoose, cats, dogs, pigs, goats, sheep, cattle, donkeys, and horses. The islands of the Caribbean support 18 species and subspecies of iguanas. The 16 *Cyclura* species and subspecies (commonly known as ground or rock iguanas) and *Iguana delicatissima*, the Lesser Antillean iguana, are endemic to the Caribbean and most species are restricted to a single island or island archipelago. The common or green iguana (*Iguana iguana*) is native to some islands in the Lesser Antilles but has been introduced to many Caribbean islands outside its natural range where it is considered invasive.

All *Cyclura* species and *Iguana delicatissima* are protected by CITES and listed on the IUCN Red List of Threatened Species. In addition, 14 *Cyclura* species and subspecies are protected under the U.S. Endangered Species Act (ESA): four are Endangered and 10 are Threatened (Appendix 1). Five taxa are or were found in U.S. Commonwealth entities: *C. cornuta stejnegeri* endemic to Mona Island Puerto Rico and threatened by invasive mammals; *C. cornuta onchiopsis* endemic to Navassa Island but extinct; *C. pinguis* extirpated from Puerto Rico and the US Virgin Islands and now restricted to the British Virgin Islands; *C. nubila nubile*, endemic to Cuba and introduced to an offshore island in Puerto Rico; and *Iguana iguana*, introduced to Puerto Rico and the U.S. Virgin Islands, where it is highly invasive.

#### III. OBJECTIVES

The overall project objective was to increase capacity within the Caribbean region to identify and address the significant threats facing Caribbean iguanas and ultimately reverse population declines. A first step

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towards this goal was the implementation of a Caribbean Regional Iguana Conservation Workshop in Puerto Rico, 03-05 December 2013.

Island Conservation collaborated with the Project Partners to plan and implement the workshop, and to manage funds provided by the Service. The Commonwealth of Puerto Rico DNER was the in-country host, and the workshop was supported by additional funds from San Diego Zoo Global, the International Iguana Foundation, and Fort Worth Zoo.

#### IV. CONTRACTUAL DELIVERABLES

## 1. Assist Project Partners to identify and coordinate workshop participants including individuals, agencies and organizations, and distribute invitations to potential participants.

A total of 129 individuals from 16 Caribbean countries and regional entities were identified by project partners as either potential workshop participants or as contacts who could assist us to identity additional participants. The contractor developed and managed a spreadsheet database to manage the process of participant identification, contact details, and follow-up. Ultimately a total of 65 individual participants accepted the invitation, at the last minute of which 4 could not attend. Of the 61 remaining participants, 25 represented non-profit organizations, 24 represented government agencies, 6 represented academic institutions, 4 represented National Trusts (also non-profit status), and 2 individuals represented private interests. In total, 17 different countries, island states, or island municipalities were represented among the participants (final participants list is included in Appendix E – Workshop Action Plan report).

The contractor worked with SDZG to distribute by email the workshop invitation (created by SDZG), to manage emailed responses, and to follow-up with further contacts. The contractor also provided formal written invitations to several government agencies that required it. Initial invitations were distributed July 01, 2013 and the contractor managed many follow-up reminders up to the workshop implementation in December 2013.

After consultation with the Service to authorize appropriate use of funds, the contractor's project coordinator for this agreement traveled to Kingston, Jamaica in November 2013 to attend the annual meeting of the IUCN Species Survival Commission's Iguana Specialist Group. This meeting provided the opportunity to meet with project partners to discuss and finalize the workshop agenda and participants. The project partners made a presentation to the ISG members about the meeting and made themselves available for questions and further discussion. In addition, the visit secured valuable participation in the workshop by two additional Jamaican delegates.

## 2. Manage funds allocated by the Service to the Recipient under this agreement to support the workshop.

The Service allocated the contractor US \$60,000 to support the workshop; \$50,000 of which was to support the workshop implementation and provide sponsorship to invited delegates. A summary of expenditure is shown in Table 1.

Expense Type	Amount (USD)
Verdanza Hotel meeting package	\$ 20,804.83
Travel for sponsored delegates	\$ 20,642.03
Stipends, additional meals	\$ 3,481.20
Facilitators	\$ 3,179.35
Miscellaneous	\$ 890.96
Contractor professional services	\$ 10,000.00
Sub-total	\$ 58,924.07
IUCN-ISG Jamaica meeting*	\$ 1,696.62
TOTAL	\$ 60,620.69

 Table 1. Summary of expenditure to support the Caribbean iguana conservation workshop

\*Travel and meeting costs were authorized by the Service prior to travel, to support workshop planning

## **3.** Assist Project Partners to allocate stipends and other financial support mechanisms offered by the Project Partners to sponsored workshop participants.

The contractor was the primary responsible entity for supporting workshop participants to finance their travel, meals, and other expenses. Of the 61 participants, 36 were fully or partly sponsored to attend receiving expenses for flights and other travel, meals, and/or stipends. The remaining participants funded all their own costs.

Individual stipends were provided to 26 participants primarily to cover costs of evening meals (not included in the venue contract). In addition, costs of some sponsored delegates were covered by other participating organizations. The stipend amount for each individual was calculated using a per night basis (\$30/night) and as such differed between delegates according to the number of nights individuals stayed in Puerto Rico. A maximum of 4 evening meals per delegate was provided, with the exception of 3 delegates whose travel itinerary required an overnight stay in Miami before arrival in Puerto Rico or an early arrival date in Puerto Rico. Cash stipends were distributed to participants at registration and signed for.

#### 4. Coordinate travel and manage funds for travel costs for sponsored workshop participants.

Flights were purchased for 31 participants, mostly traveling from within the Caribbean. To manage the flight purchasing process, the contractor developed a 'flight information form' to collect relevant personal details from participants needed to schedule and pay for a flight reservation. The contractor requested each sponsored participant to identify their preferred flight itinerary on the form. If the contractor located a cheaper itinerary (using online search engines or airline websites) or a more appropriate schedule (e.g. allowing sufficient time for immigration into the US), the contractor identified this to the delegate and worked with them to finalize the most appropriate purchase. Ultimately the contractor directly purchased 30 airline tickets and reimbursed one delegate for flight costs. Where several delegates were traveling from the same country, the contractor endeavored to purchase the same flight for all delegates.

In addition, the contractor entered arrival and departure details into the Participant Database and provided this information to DNER to enable them to provide transfer services between the international airport and the workshop venue in San Juan.

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## 5. Assist DNER to manage hotel and other accommodation costs and assist DNER to make payments required for the workshop venue.

The contractor was the primary responsible entity for managing the venue contract. The DNER initiated identification of an appropriate venue and provided to the contractor two alternatives: the Verdanza Hotel in Isla Verde, San Juan, and the Sheraton Hotel in Old San Juan. The contractor identified a third option, the Hilton Hotel Caribe also in San Juan. The contractor obtained quotes for a group contract from all three venues and coordinated discussions with the project partners to evaluate the most appropriate choice; the Verdanza Hotel was subsequently selected. Once selected, the contractor was the primary responsible entity for the development of the meeting package and contract including: cost; payment schedules and amounts; and terms and conditions. The contractor worked via email and met several times in-person with the hotel meeting organizer to finalize the meeting package details and contract. The contractor provided professional legal review of the contract prior to signing. Contract negotiations were initiated with the Verdanza Hotel on May 29 2013 and both parties signed the contract on July 19, 2013. Subsequent to signing, the contractor was the primary responsible entity for ensuring that payments towards the contract were delivered on time, and payment of the final invoice (which included any additional expenses incurred by the hotel during the course of the workshop such as audio equipment rental) was processed.

The contractor was also the primary responsible entity for developing the rooming list for sponsored and some self-funded delegates (most sponsored rooms were shared occupancy), the meal package for the workshop days (breakfast and lunch), and ensuring that specific participant needs (such as dietary allergies and preferences) were delivered to the hotel.

The Verdanza Hotel meeting package included a guaranteed room rate for 40 delegates for 4 nights; a meal package for 40 delegates of continental breakfast, plated lunch and mid-morning and mid-afternoon coffee breaks; use of the Grand Ballroom function room for 3 full workshop days; discount parking rates for local participants; and some workshop materials for 61 delegates (notepads, pens, etc). In addition, the contractor coordinated and paid for additional accommodation in Miami and San Juan for three delegates incurred because of the necessary travel schedules.

The contractor also negotiated an additional meals package for 21 self-funded delegates. The contractor coordinated the necessary payments by managing delegates' credit card information and providing it to the hotel. In addition, the contractor obtained personal information about dietary preferences and allergies and provided it to the hotel.

The contractor also coordinated travel information for 18 self-funded delegates traveling from outside of Puerto Rico. The contractor created a Flight Information Form for self-funded delegates to obtain individual itineraries; this information was entered into the Participant Database and provided to DNER for airport transfers.

# 6. Assist Project Partners in other activities to support planning and implementation of the workshop as needed, e.g. coordination of guest speakers and facilitators, developing the workshop agenda, developing information packages for participants.

The contractor assisted the project partners in the overall planning and implementation of the workshop. Specifically, the contractor participated in remote meetings between project partners; assisted with the development of the agenda; coordinated travel arrangements, accommodation and meal package for the main facilitators; and provided DNER with the Information Package previously distributed by email; this was incorporated into the 'workshop bag' that DNER provided to delegates.

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The contractor created a registration package for both self-funded and sponsored participants to collect personal details needed to manage participants' needs and to provide specific information about the workshop goals, venue, accommodation, meals, travel coordination, and guidelines for US entry requirements (see Appendix B). The contractor was responsible for distributing the Information Package to delegates, and for managing the information in returned forms. The contractor also compiled and distributed the final Workshop Information Package which included an introduction to the meeting; the agenda; participants list; airport map; and menu (see Appendix C).

The contractor also provided one of three plenary presentations to support the workshop goals. In addition, three staff from Island Conservation attended the workshop as self-funded delegates and each chaired at least one breakout discussion session during the three days.

#### 7. Assist Project Partners to prepare and distribute a meeting summary.

The contractor assisted project partners to finalize the Workshop Action Plan report, and to distribute to workshop delegates. The final report is appended to this document (Appendix E). In addition, with project partners the contractor collaboratively developed a post-workshop media article and provided the Spanish language translation (Appendix D). This was released on January 29, 2014. In addition, the contractor created an online tool to share photographs of iguanas for the press release, and provided appropriate photos.

#### V. APPENDICES

#### **APPENDIX A: Workshop Development – Supporting Information**

The islands of the Caribbean support 18 species and subspecies of large herbivorous lizards in the family Iguanidae. The 16 *Cyclura* species and subspecies (commonly known as ground or rock iguanas) and *Iguana delicatissima*, the Lesser Antillean iguana, are endemic to the Caribbean. Most species are restricted to a single island or island archipelago. The common or green iguana, *Iguana iguana* is native to much of Central and South America and to some islands in the Lesser Antilles, and is the only species with a distribution that also includes continental areas. However, it has been introduced to many Caribbean islands outside its natural range, where it is considered invasive and a threat to native iguana species due to competition and potential hybridization.

All *Cyclura* species and *Iguana delicatissima* are protected by CITES and listed on the IUCN Red List of Threatened Species. In addition, 14 *Cyclura* species and subspecies are protected under the U.S. Endangered Species Act (ESA): four are Endangered and 10 are Threatened (Table 2). The only endemic Caribbean iguanas not protected by the ESA are *C. ricordii* and the nominate subspecies of *C. cornuta*, both restricted to Hispaniola, and *Iguana delicatissima* from the Lesser Antilles.

Five taxa are or were found in U.S. Commonwealth entities: *C. cornuta stejnegeri*, endemic to Mona Island, is threatened by invasive mammals and is the focus of a head-starting program; *C. cornuta onchiopsis*, endemic to Navassa Island, is considered extinct; *C. pinguis*, now restricted to the British Virgin Islands where conservation efforts include head-starting and translocation but was also known from late Pleistocene cave deposits on Puerto Rico and from Native American middens on St. Thomas in the US Virgin Islands; *C. nubila nubila*, endemic to Cuba, including the U.S. Naval Base at Guantanamo Bay, is introduced on Magueyes Island off southwestern Puerto Rico, where it is considered a pest; and *Iguana iguana*, introduced to Puerto Rico and the U.S. Virgin Islands, where it is considered invasive.

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All endemic Caribbean iguanas are adapted to tropical dry-forest habitat that is one of the Caribbean Region's most imperiled ecosystems. Iguanas are the largest native terrestrial vertebrates and dominant herbivores on most islands where they occur. Because they eat the fruits, flowers, and leaves of many native plant species in these habitats and facilitate the dispersal and germination of seeds passing through their digestive tract, iguanas play a key role in the maintenance and perpetuation of native Caribbean plant communities.

Collectively, Caribbean iguanas are the most endangered group of lizards in the world. The principal threats to their survival are habitat loss, and predation and competition from introduced mammals, including rats, mongoose, cats, dogs, pigs, goats, sheep, cattle, donkeys, and horses.

Conservation efforts for Caribbean iguanas encompass a wide range of activities, including habitat protection, invasive species management, genetic studies, population monitoring, public education and awareness, capacity building for in-country partners, captive breeding, head-starting, translocation, and reintroduction. Most of the research and conservation effort focused on Caribbean iguanas is relatively recent and has been facilitated by the IUCN Iguana Specialist Group (ISG), established in 1997, and the International Iguana Foundation (IIF), founded in 2001.

There are presently captive breeding or head-starting facilities for five species of Caribbean iguanas to mitigate for small population sizes and low juvenile recruitment due to invasive mammalian predators. All facilities are located on the home island of the respective imperiled species, including: the National Zoo (ZooDom) in Santa Domingo, Dominican Republic (*C. ricordii*), Grand Cayman in the Cayman Islands (*C. nubila lewisi*). In addition to the programs, there are SSP captive breeding programs for some of the endemic Caribbean iguanas in U.S. and European zoos.

		Pop size		Political	IUCN	ESA
Scientific Name	Common Name	(IUCN)	Range	jurisdiction	Status	status
Cyclura carinata bartschi	Bartsch's Iguana	~ 750	Booby Cay	Bahamas	CR	Т
Cyclura carinata carinata	Turks and Caicos Iguana	< 10,000	Turks Bank,	Turks & Caicos	CR	Т
	_		Caicos Bank	Islands		
Cyclura collei	Jamaican Iguana	< 500	Jamaica	Jamaica	CR	EN
Cyclura cornuta cornuta	Rhinoceros Iguana	> 10,000	Hispaniola	Dominican Republic,	VU	
				Haiti		
Cyclura onchiopsis	Navassa Iguana	-	Navassa	US	EX	
Cyclura cornuta stejnegeri	Mona Island Iguana	~ 5000	Mona Island	Puerto Rico (US)	EN	Т
Cyclura cychlura cychlura	Andros Iguana	< 5,000	Andros Island	Bahamas	EN	Т
Cyclura cychlura figginsi	Exumas Iguana	< 1,300	Exuma Cays	Bahamas	CR	Т
Cyclura cychlura inornata	Allen's Cay Iguana	< 500	Allen's Cays	Bahamas	EN	Т
Cyclura lewisi	Grand Cayman Blue Iguana	< 500	Grand Cayman	Cayman Islands	EN	EN
Cyclura nubila caymanensis	Sister Islands Iguana	< 2,000	Little Cayman,	Cayman Islands	CR	Т
			Cayman Brac			
Cyclura nubila nubila	Cuban Iguana	> 10,000	Cuba	Cuba	VU	Т
Cyclura pinguis	Anegada Iguana	< 500	Anegada,	British Virgin Islands	CR	EN
			Guana, Necker,			
			Moskito, Little			
			Thatch			
Cyclura ricordi	Ricord's Iguana	< 5,000	South-central	Dominican Republic,	CR	
			Hispaniola	Haiti		
Cyclura rileyi cristata	White Cay Iguana	< 500	White Cay	Bahamas	CR	Т
Cyclura rileyi nuchalis	Acklins Iguana	> 10,000	Acklins Bank	Bahamas	EN	Т
Cyclura rileyi rileyi	San Salvador Iguana	< 2,000	San Salvador	Bahamas	CR	EN
Iguana delicatissima	Lesser Antilles Iguana	> 10,000	Northern	Anguilla, Antigua	EN	
			Lesser Antilles	Barbuda, Dominica,		
				Guadeloupe,		
				Martinique,		
				Netherlands Antilles,		
				St Barthelemy, St		
				Martin		
Iguana iguana	Common or Green Iguana	> 10,000	Native to	Many Caribbean		
			Southern	countries due to		
		0	Lesser Antilles	widespread		

Table 2. Conservation status of Caribbean Iguanas

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*Table 2 notes: IUCN status:* CR=Critically Endangered, EN=Endangered, VU=Vulnerable, EX=Extinct. Reference: IUCN Red List of Threatened Species. Version 2012.2. <u>www.iucnredlist.org</u>. *ESA status:* EN=Endangered, T=Threatened.

While several critically endangered Caribbean iguana species have been pulled back from the brink of extinction in the past decade by ongoing conservation efforts (e.g., *Cyclura collei* on Jamaica, *Cyclura pinguis* on Anegada, and *C. nubila lewisi* on Grand Cayman), *ex-situ* captive breeding efforts have had limited success despite significant effort and expense, most likely because of the difficulty replicating the environmental factors necessary for successful reproduction of Caribbean iguanas in temperate environments. In addition, while *in-situ* head-starting and release programs have also had some success (*Cyclura pinguis* on Anegada Island in the British Virgin Islands, *C. collei* from the Hope Zoo in Kingston, Jamaica, and *C. cornuta stejnegeri* on Mona Island, Puerto Rico), these efforts are costly and intensive, and do not address the root cause of the problem which is high mortality of individuals due to invasive predators.

What is now needed to optimize efforts to conserve Caribbean iguanas is a regional program to address the common factors occurring across the Caribbean that continue to threaten the survival of iguana populations, and which include: invasive mammals; habitat destruction and degradation; coastal development; climate change; and a lack of awareness among communities about the issues impacting endemic iguanas. Engaging multiple Caribbean nations to address the common problems that affect Caribbean iguanas provides a previously unrecognized opportunity to protect iguana populations and recover many iguana species to significant parts of their former range. In so doing, we can secure their long-term survival and eliminate or reduce the need for costly and intensive captive breeding and head-starting programs.

To understand the common issues impacting Caribbean iguanas and develop solutions for their conservation, we propose a Caribbean Regional Iguana Program Workshop to bring together specialists in captive-breeding, head-starting, reintroduction and translocation, invasive species eradication and control, iguana research, outreach and education, and environmental legislation, from government agencies, non-profit organizations, private individuals, and other management authorities working within protected areas, tourism, and other disciplines in the Caribbean region.

### APPENDIX B – REGISTRATION PACKAGE

APPENDIX C – WORKSHOP INFORMATION PACKAGE

APPENDIX D – POST-WORKSHOP PRESS RELEASE

APPENDIX E - WORKSHOP ACTION PLAN REPORT

## Caribbean Iguana Conservation Workshop: Exploring a Region-Wide Approach to Recovery Programs

3-5 December 2013 (with arrival on 2 Dec and departure on 6 Dec) Hotel Verdanza, San Juan, Puerto Rico

### Dear workshop delegate

We are looking forward to meeting you at the Caribbean Iguana Conservation Workshop in December 2013. The Verdanza Hotel will be our Caribbean workshop venue, located in Isla Verde, San Juan, Puerto Rico, and just steps away from Alambique Beach. In the evening, Isla Verde provides a wide range of choices of restaurants, cafes, live entertainment, dance clubs, casinos, and restaurants all close to the hotel.

#### **Accommodation**

As sponsored workshop delegates, we will provide you with a single occupancy (1 King) or shared doubleoccupancy (2 double-sized beds) room for 4 nights, arriving Dec 02 and departing Dec 06.

If you wish to extend your stay in Puerto Rico beyond these dates, you will be responsible for all additional costs yourself and will need to make the appropriate reservations directly with the hotel. However, for an extended stay the hotel is offering a discounted room rate of \$125 per room per night + taxes and fees which is valid for up to 3 days before and after the workshop (earliest arrival Nov 30, latest departure Dec 10).

Please provide your check-in and check-out dates in the registration form below.

**If you arrive at the hotel Monday Dec 02 and depart Friday Dec 06,** <u>you do not need to make a room</u> <u>reservation</u>. *We have done that for you.* 

## <u>If you want to extend your stay before and/or after the workshop dates</u>, please follow the instructions below to obtain the discounted room rate.

- 1. Online instructions:
  - 1. Go to http://www.verdanzahotel.com
  - 2. Click on 'book now' (you do not need to enter your dates here) this will take you to a new window
  - 3. At the top, click on 'Group Code' and in the drop-down menu enter group code: CPM13
  - 4. Select your reservation dates from the calendar, click on 'continue'

### \*\*\* IMPORTANT: ONLY SELECT YOUR EXTRA DATES BEFORE OR AFTER THE WORKSHOP \*\*\*

The hotel has a list of workshop attendees and will match your reservation with the workshop list.

- 5. Select your choice of room and complete booking details.
- 2. <u>By phone:</u>
  - 1. Call Reservations:
    - **Telephone:** +1 787.253.9000
    - **Toll Free Reservations:** +1 800.625.0312
  - 2. Say that you are part of the group (block code CPM13) to be honored the rate.

For the workshop period, we will allocate shared rooms to sponsored participants in order to maximize the opportunities for Caribbean delegates to attend. Please indicate in the registration sheet below your willingness to share a room with another delegate, and enter the name of your roommate if you already have one.

### Meals

We have allocated plenty of time for workshop meals as these provide valuable opportunities for discussion and networking among delegates. To that end, as a sponsored delegate we will provide for you a meal package at the hotel during workshop days. The meal package includes a continental breakfast, a plated setmenu 3-course lunch with a different menu each day, as well as mid-morning and mid-afternoon coffee, tea, and snacks. This package will provide breakfasts from Tues Dec 03 to Fri Dec 06, and will provide lunches, mid-morning, and mid-afternoon breaks on Tues Dec 03, Weds Dec 04, and Thurs Dec 05. Vegetarian options will be provided. Please indicate in the registration form below if you have special dietary needs.

Dinner is not provided. For dinner options, delegates are free to choose from the Coladas Sports Bar and two in-house restaurants at the Verdanza Hotel, or visit other restaurants within close walking distance of the hotel. As a sponsored delegate, we can offer some financial support for your dinner costs. Please indicate in the registration form if you will need this.

#### <u>Travel</u>

For those traveling to Puerto Rico for the workshop, you will arrive at the **Luis Muñoz Marín International Airport** (airport code: **SJU**). On arrival, you will be met by one of the workshop organizers and taken to the Verdanza Hotel. If needed, taxis are also available: there is a fixed rate of \$11.50 from the airport to the Verdanza plus luggage at \$1.00 per piece, excluding hand luggage. Maps and directions can be found on the hotel website.

#### http://www.verdanzahotel.com/maps-directions

While there is no registration fee for this workshop, in order to ensure that your workshop experience is a positive one, we would be grateful if you could complete the registration form below and return to us no later than **October 31, 2013.** 

### <u>Flights</u>

As sponsored delegates, we will be able to fully or partially fund your flight costs. In the registration form below, please enter your preferred dates and flight schedule, even if it is not yet booked. We will contact you individually to book your flight.

### Entry Requirements into Puerto Rico (USA)

To enter Puerto Rico, you will need a Visitor visa for the United States of America. Travelers coming to the U.S. for tourism or business for 90 days or less from qualified countries may be eligible to visit the U.S. without a visa if they meet the visa waiver program requirements. Select <u>Visa Waiver Program</u> (VWP) to learn more, and find out if you meet the visa waiver requirements.

In order to travel without a visa on the VWP, you must have authorization through the Electronic System for Travel Authorization (ESTA) prior to boarding a U.S. bound air or sea carrier. ESTA is the Department of Homeland Security, Customs and Border Protection's (CBP) automated web-based system to determine eligibility to travel without a visa to the United States for tourism or business. Visit the <u>ESTA webpage</u> on the CBP website for more detailed information, to apply for ESTA, and pay the fee.

Please visit the United States visa information source for more details <a href="http://travel.state.gov/visa/visa\_1750.html">http://travel.state.gov/visa/visa\_1750.html</a>

### **Caribbean Iguana Conservation Workshop**

### **Participant Registration form**

please return one form per person

NAME:				
AFFILIATION:				
ACCOMODATION: please indicate if you are willing	ng to share a room with another delegate.			
Check-in date:	Check-out date:			
I require a single room (1 King): YES / N	0			
I am willing to share (2 double-sized beds): YI	ES / NO			
If you can share a room, do you need us to suggest	a roommate?			
Yes, please provide a roommate				
No, I have a roommate (please provide name)				
<b>MEALS:</b> continental breakfast, plated lunch, mid-mor provided	ning & mid-afternoon coffee and snacks will be			
Do you require a vegetarian option? YES / N	NO			
Please specify other special dietary needs:				
Do you require a stipend to cover your dinner costs? YES / NO				
<b>ARRIVAL &amp; DEPARTURE:</b> please provide known or expected dates of arrival and departure. Where known, please enter flight details.				
Arrival date:	Departure date:			
Arrival time:	Departure time:			
Airline name:	Airline name:			
Flight number:	Flight number:			
Arriving from:	Departing to:			

### Preliminary list of delegates at the Caribbean Regional Iguana Workshop

Representative	Name	Organization/Agency	Email address
iguana country	Name	organization/ Agency	
Anguilla	Karim Hodge	Department of Environment	karim.hodge@GOV.AI
Bahamas	TBD	Bahamas National Trust	
Bahamas	Vanessa Haley-Benjamin	Bahamas National Trust	vhaley-benjamin@bnt.bs
Bahamas	Maurice Isaacs	Department of Agriculture	free4theresa@yahoo.com
Bahamas/US	Boris Fabres	Island Conservation	boris.fabres@islandconservation.org
Bahamas/US	Bill Hayes	Loma Linda University	whayes@llu.edu
BVI	Joseph Smith Abbott	BVI National Parks Trust	director@bvinpt.org
BVI	Vaman Ramlall	Necker Island	Vramlall@neckerisland.virgin.com
BVI/US	Gad Perry	Texas Tech University	gad.perry@ttu.edu
BVI/US	Tarren Wagener	Fort Worth Zoo	Twagener@fortworthzoo.org
BVI/US	Kelly Bradley	Fort Worth Zoo	kbradley@fortworthzoo.org
Cayman Islands	Jessica Harvey	Department of Environment	jessica.harvey@gov.ky
Cayman Islands	TBD	National Trust for the Cayman Islands	
Cayman Islands/UK	Matt Goetz	Durrell Wildlife Conservation Trust	Matt.Goetz@durrell.org
Cayman Islands/UK	Fred Burton	Blue Iguana Recovery Program	fjburton@blueiguana.ky
Dominican Republic	Ernst Rupp	Grupo Jaragua	ErnstRupp@web.de
Dominican Republic	Sixto Inchaustegui	Grupo Jaragua	sixtojinchaustegui@yahoo.com
Dominican Republic	Cristian Marte	National Museum	cristian marte@hotmail.com
Dominican Republic		Sociedad Ornitologica de la Hispaniola	ibrocca@soh.org.do
Dominican Republic Dutch OTs	Jorge Brocca Hannah Madden	Sociedad Ornitologica de la Hispaniola STENAPA - St Eustatius	hannah.madden.stenapa@gmail.com
Dutch OTs	Fleur Hermanides	Department of Public Health	fleur.hermanides@gmail.com
		•	
Haiti/US	Masani Accimé	Cyclura ricordi Species Conservation Initiative for IIF	masani.accime@gmail.com Bwilson@uwi.edu
Jamaica	Byron Wilson	University of the West Indies, Mona	
Jamaica	Andrea Donaldson	National Environment and Planning Agency - NEPA	Adonaldson@nepa.gov.jm
Jamaica	Sara Simpson-Tulloch	Urban Development Corporation - UDC	SSimpson@udcja.com
Jamaica/US	Amanda Neill	Botanical Research Institute Texas	aneill@brit.org
Puerto Rico	Miguel Garcia	PR Dept of Natural and Environmental Resources	magarcia@drna.gobierno.pr
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### **Caribbean Iguana Conservation Workshop:** Exploring a Region-Wide Approach to Recovery Programs





ISLAND CONSERVATION





### 3-5 December 2013 Hotel Verdanza, San Juan, Puerto Rico

### **Organizers**:

United States Fish and Wildlife Service Island Conservation San Diego Zoo Institute for Conservation Research Puerto Rico Department of Natural and Environmental Resources The Nature Conservancy *Additional funding provided by* Fort Worth Zoo and the International Iguana Foundation

### **Rationale:**

The endemic iguanas of the Caribbean are the most endangered group of lizards in the world, with one species extinct and five of the remaining 11 listed as Critically Endangered by the IUCN Red List of Threatened Species. Indeed, several species exist as single populations with no more than a few hundred individuals and little measurable natural recruitment due to invasive mammalian predators. Other significant threats include habitat destruction and loss from charcoal production and land development, collection for the pet trade, hunting, vehicular mortality, and competition and introgression with introduced iguana species. Much has been done to conserve Caribbean iguanas over the last two decades and recovery plans have been published for most species. Population supplementation, reintroduction, habitat protection, invasive species control, education, outreach, and capacity building are predominant themes in these publications and recovery programs for individual species are often similar. However, there has been no organized regional effort to share experiences and needs or consolidate efforts among recovery programs for Caribbean iguanas. To this end we are organizing a workshop to bring a variety of public and private stakeholders together from throughout the Caribbean to exchange ideas and experiences, identify common needs, and explore opportunities for increasing the efficiency and effectiveness of iguana conservation programs on a regional level and promote iguanas as flagship species for conservation of Caribbean dry-forest ecosystems.

### At the workshop we will:

- Review the status and threats of Caribbean iguanas
- Examine the accomplishments and challenges of conservation efforts to date
- Encourage participation from a wide spectrum of stakeholders in the recovery process
- Strive to establish a regional framework for advancing Caribbean iguana conservation



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## **Participant Agenda**

### Monday December 2, 2013

5.00-8.00 pm Registration, Verdanza Hotel lobby

All events (breakfast, lunch, workshop) will take place in the Grand Ballroom on the first floor unless otherwise indicated

### Tuesday, December 3, 2013

- 7.00-9.00 Registration, Verdanza Hotel lobby
- 7:30-8:30 Breakfast
- 8:30-9:15 Welcome and Session Overview with Carmen Guerrero, Secretary of DNER and Brvan Arrovo, Assistant Director, International Affairs, USFWS
- 9:15-10:15 Participant Introductions
  - Who you are
  - Who and what area your organization represents
- 10:15-10:30 Break 1st floor mezzanine level
- 10.30-11.00 Promising Practice Presentation: Blue Iguana Project Fred Burton -
- 11:00-11:30 Promising Practice Presentation: Invasive Species Management for Iguana Conservation - Kirsty Swinnerton (Island Conservation)
- 11.30-12.00 Promising Practice Presentation: Caribbean Landscape Conservation Cooperative Brent Murry (U.S. Fish and Wildlife Service)
- 12:00-1:30 Lunch - 1<sup>st</sup> floor mezzanine level
- 1:30-2:30 Small Group Discussion: Setting the Agenda
  - Identification of the factors that influence successful Iguana conservation
  - Identification of critical issues
- 2:30-3:15 Report Out and Debrief
- 3:15-3:30 Break - 1<sup>st</sup> floor mezzanine level
- 3:30-4:15 Large Group Prioritizing of Issues
- 4:15-4:30 Day 2 Overview and Evaluation
- 6.00-7.00 Cocktail hour, Puerto Rico Rums - 1st floor mezzanine level



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### Wednesday, December 4, 2013

All events (breakfast, lunch, workshop) will take place in the Grand Ballroom on the first floor unless otherwise indicated

- 7:30-8:30 Breakfast
- 8:30-9:15 Overview and Priorities
- 9:15-10:30 Small Group Discussion 1: Identifying potential projects, considerations, and challenges
- 10:30-10:45 Break 1st floor mezzanine level
- 10:45-12:00 Small Group 1: Debrief and Evaluate
- 12:00-1:30 Lunch
- 1:30-2.45 Small Group Discussion 2: Identifying potential projects, considerations, and challenges
- 2.45-3:30 Small Group 2: Debrief and Evaluate
- 3:30-3:45 Break 1<sup>st</sup> floor mezzanine level
- 3:45-4:15 Prioritizing Projects for Day 3
- 4:15-4:30 Day 2 Overview and Evaluation



### Thursday, December 5, 2013

All events (breakfast, lunch, workshop) will take place in the Grand Ballroom on the first floor unless otherwise indicated

- 7:00-8:30 Breakfast
- 8:30-8:45 Day 3 Overview
- 8:45-10:15 Project Group Discussion of Prioritized Projects Part 1: Identifying Tasks and Establishing Timelines—WHAT, HOW, WHO, WHEN, and Communication and Accountability
- 10:15-10:30 Break 1st floor mezzanine level
- 10:30-12:00 Project Group Discussion of Prioritized Projects Part 2: Identifying Tasks and Establishing Timelines—WHAT, HOW, WHO, WHEN, and Communication and Accountability
- 12:00-1:30 Lunch
- 1:30-3:15 Report Out and Debrief Projects
- 3:15-3:30 Break 1<sup>st</sup> floor mezzanine level
- 3:30-4:00 Large Group Discussion: Accomplishing Goals, Continuing the Dialogue, Where Do We Go From Here?
- 4:00-4:30 Wrap up and Evaluation



### Regional Caribbean Iguana Workshop – Participants

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### Luis Munoz Marin International Airport

SC65 Inf. 5 Annex



### Caribbean Regional Iguana Conservation Workshop: Exploring a Region-Wide Approach to Recovery Programs

Menu – Hotel Verdanza

December 3-6, 2013

A vegetarian option will be available each day for delegates who have registered their preference. Other special dietary needs will also be catered for, such as vegan diets and any food allergies registered by delegates.

### DAY 1: Tuesday December 03, 2013

Continental Breakfast – Puerto Rican coffee, selection of teas, orange juice, assorted local pastries, sliced bread, croissants, muffins, jams

Mid-morning Break - Puerto Rican pastries, assorted jams, Puerto Rican coffee, selection of teas

Lunch

Soup - Pigeon Pea "Asopao"

Entrée - Grilled Strip Loin Steak with Mushroom Marsala Sauce, served with Roasted Garlic Mashed Potatoes and Seasonal Vegetables

Dessert - Coconut Flan

Drinks: sodas & water

Mid-afternoon Break - assorted cookies, coffee, teas, assorted soft drinks

### DAY 2: Wednesday December 04, 2013

Continental Breakfast – Puerto Rican coffee, selection of teas, orange juice, assorted local pastries, sliced bread, croissants, muffins, marmalades.

Mid-morning Break – Croissants, assorted jams, Puerto Rican coffee, selection of teas

Lunch

Salad – Caesar Salad

Entrée – Chicken Breast Stuffed with Sweet Plantains and Chorizo, topped with Cilantro Sauce, and served with Fresh Vegetables and Cilantro Rice Pilaf

Dessert – *Tiramisu* 

Drinks - sodas & water

Mid-afternoon Break - assorted muffins, coffee, teas, assorted soft drinks

### DAY 3: Thursday December 05 2013

Continental Breakfast – Puerto Rican coffee, selection of teas, orange juice, assorted local pastries, sliced bread, croissants, muffins, jams

Mid-morning Break – plain Mallorcas, assorted jams, Puerto Rican coffee, selection of teas

Lunch

Soup - Cream of Green Plantains

Entrée – Macadamia Crusted Mahi Mahi, served with Creole Sauce and Confetti Rice Pilaf

Dessert – Tres Leches

Drinks – sodas & water

Mid-afternoon Break - assorted finger sandwiches, coffee, teas, assorted soft drinks

### DAY 4: Friday December 06 2013

Continental Breakfast – Puerto Rican coffee, selection of teas, orange juice, assorted local pastries, sliced bread, croissants, muffins, jams





January 29, 2014

Contact: Claire Cassel (703) 358-2357 claire\_cassel@fws.gov

### Saving the World's Most Endangered Lizards

New Collaboration for Caribbean Island Iguana Conservation

The most endangered group of lizards in the world, Caribbean island iguanas, are beginning 2014 with a new coalition of conservation champions resolved to implement bold actions to help save these imperiled species. Governments, academics, non-government organizations and private stakeholders will collaborate on more than 20 projects focused on alleviating threats to iguanas, changing public perceptions, and ensuring long-term financial, government, and public support for iguana conservation.

With one Caribbean island iguana species already extinct and eight of the remaining 11 listed as critically endangered or endangered by the  $IUCN^1$  Red List of Threatened Species, this regionwide effort comes at a critical time for the survival of these species.

"Collaboration is key in this endeavor," according to Brent Murry, Science Coordinator for the Caribbean Landscape Conservation Cooperative and representative for the new effort. "The threats to these unique animals are immense and beyond any one organization or agency. A region-wide effort allows each country and organization to tap into regional expertise and resources in order to implement the local solutions iguanas so greatly need."

Projects range from identifying essential habitat for these lizards' survival, reducing threats from invasive species and supporting on-the-ground law enforcement efforts, to promoting regional art contests. These projects and numerous others stemmed from a workshop held in Puerto Rico this past December that brought together 61 participants from 16 nations, including a representative for Sir Richard Branson, founder of the Virgin Group and a private land owner in the British Virgin Islands. Workshop participants identified the most critical issues for iguana conservation and developed action plans and timelines for projects considered to be highest priority.

"This workshop was the first regional initiative that has brought together species experts with critical public and private stakeholders," said Carmen R. Guerrero-Pérez, Secretary of the Puerto Rico Department of Natural and Environmental Resources and workshop host. "The bar was raised, and now we are committed to implement the agreed-upon recovery actions locally as well as through international collaboration with other countries."

"December's workshop was the catalyst for conservation actions that will have an enormous impact on iguanas across the region," said Bryan Arroyo, Assistant Director of International

<sup>&</sup>lt;sup>1</sup> International Union for the Conservation of Nature Red List of Endangered Species; <u>www.iucnredlist.org</u>

Affairs with the U.S. Fish and Wildlife Service. "The Service will be an active participant in developing and implementing these projects and supporting Caribbean governments and partners as they endeavor to save a piece of their natural heritage."

"A key outcome of the workshop was a renewed commitment to coordinated, on-the-ground efforts that will directly benefit iguana conservation, including headstarting, restoration and protection of iguana habitats, and reintroduction efforts to enhance population recovery," said Allison Alberts, Chief Conservation and Research Officer for San Diego Zoo Global and co-sponsor of the workshop.

Iguana conservation has a proven record of success, and partners are confident these projects will have a lasting impact. In 2002, the Grand Cayman blue iguana numbered fewer than 25 individuals. Today, there are more than 750 blue iguanas on Grand Cayman thanks to a conservation strategy that includes habitat protection, captive breeding and release, research, monitoring and education. The Jamaican iguana—thought to be extinct as recently as the late 1980s—now numbers over 300 individuals, as a result of intensive conservation efforts. But even these successes remain at risk when they run up against competing demands for land and resources. Commercial development threatens to wipe out virtually all the remaining habitat of the Jamaican iguana. Without vigilant conservation attention, success one day can turn to failure the next.

"Many of these conservation projects comprise tangible on-the-ground actions that will make a real and lasting difference in the protection of Caribbean iguana populations and their habitats," said Kirsty Swinnerton, Caribbean Program Manager for Island Conservation. "We are excited to be part of this extraordinary effort to save these flagship species, and to lend our expertise and resources in removing invasive species that threaten the survival of these iconic animals."

Iguanas are the largest native vertebrates left on many of the Caribbean islands. As seed dispersers, they are vital to the ecosystem and help to maintain healthy native plant communities. Several iguana species exist as single populations with no more than a few hundred individuals. Invasive, introduced mammalian predators such as feral cats and dogs, as well as pigs and goats are the greatest threat to many iguana species and their habitats. Other significant threats include habitat destruction by charcoal production and land development, collection for the pet trade, hunting, vehicular mortality, and competition and interbreeding with the introduced, invasive common green iguana.

### About The Caribbean Landscape Conservation Cooperative

The Caribbean LCC is a partnership among research and management agencies, organizations and individuals in Puerto Rico, the US Virgin Islands, and the wider Caribbean working to develop and provide sound management-driven science to help in the conservation of natural and cultural resources. The Caribbean LCC is one of a network of 22 LCCs initiated by the US Department of the Interior that cover the United States including Alaska, the Pacific islands, parts of neighboring Mexico and Canada, and the Caribbean. Visit <u>www.caribbeanlcc.org</u>. Follow us on twitter at @Caribbean\_LCC.

### About Puerto Rico Department of Natural and Environmental Resources

The Puerto Rico Department of Natural and Environmental Resources was created in 1972. Our mission is to protect, conserve and administer the natural and environmental resources of the country to guarantee their enjoyment for the future generations and to stimulate a better life quality. Please refer to <u>www.drna.gobierno.pr</u> to learn more about us.

### About the U.S. Fish & Wildlife Service

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. For more information on our work and the people who make it happen, visit <u>www.fws.gov</u>. Connect with our Facebook page at <u>www.facebook.com/usfws</u>, follow our tweets at <u>twitter.com/usfwshq</u>, watch our YouTube Channel at <u>www.youtube.com/usfws</u> and download photos from our Flickr page at<u>www.flickr.com/photos/usfwshq/</u>

### <u>About San Diego Zoo Global</u>

Bringing species back from the brink of extinction is the goal of San Diego Zoo Global. As a leader in conservation, the work of San Diego Zoo Global includes onsite wildlife conservation efforts (representing both plants and animals) at the San Diego Zoo, San Diego Zoo Safari Park, and San Diego Zoo Institute for Conservation Research, as well as international field programs on six continents. The important conservation and science work of these entities is made possible by the San Diego Zoo Global Wildlife Conservancy and is supported in part by the Foundation of the Zoological Society of San Diego.

### About Island Conservation

Island Conservation (IC) is a global, not-for-profit conservation organization whose mission is to prevent extinctions by removing invasive species from islands. Once invasive species are removed, native island species and ecosystems recover with little additional intervention. Since 1994, Island Conservation has deployed scientists to 52 islands worldwide to protect 994 populations of 389 native species. In 2012, IC launched the Small Islands, Big Difference (SIBD) campaign to save our world's most vulnerable species. The SIBD campaign partners are rallying governments, NGOs, and bi-and multi-lateral institutions worldwide to support island invasive species eradications. IC is headquartered in Santa Cruz, CA with field offices in Australia, British Columbia, the Caribbean, Chile, Ecuador, Puerto Rico, Hawaii, and Washington, DC.





FISH & WILDLIFE SERVICE

PARA SU PUBLICACIÓN INMEDIATA

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#### Salvando a las Lagartijas en Mayor Peligro del Mundo

#### Nueva Colaboración para la Conservación de la Iguana Insular del Caribe

El grupo de lagartijas en mayor peligro del mundo, las Iguanas Insulares del Caribe, ha comenzado el 2014 con una nueva coalición de campeones en conservación que resolvió aplicar acciones audaces para ayudar a salvar a estos reptiles en peligro. Gobiernos, academia, organizaciones no gubernamentales y el sector privado colaborarán en más de 20 proyectos enfocados en mitigar las amenazas que enfrentan las iguanas, cambiando la percepción pública y asegurando el apoyo financiero, gubernamental y público a largo plazo para la conservación de iguanas.

Con una especie de Iguana del Caribe ya extinta y 8 de las 11 restantes enlistadas como En Peligro Crítico o En Peligro en la Lista Roja de Especies Amenazadas de la IUCN<sup>1</sup>, este esfuerzo, en toda la región, llega en un momento crítico para la sobrevivencia de estas especies.

"La colaboración es clave en este esfuerzo", de acuerdo con Brent Murry, Coordinador Científico de la Cooperativa para la Conservación del Paisaje en el Caribe (CLCC) y representante de este nuevo esfuerzo. "Las amenazas de estos animales únicos son inmensas y van más allá de cualquier organización o agencia. Un esfuerzo en toda la región permite que cada país y organización aproveche la experiencia y recursos regionales para implementar soluciones locales que las iguanas tanto necesitan".

Los proyectos van desde la identificación de hábitat esencial para la sobrevivencia de estas lagartijas, reducción de la amenaza de especies invasoras y apoyo a esfuerzos para la aplicación de la ley en el sitio, hasta la promoción de concursos de arte en la región. Estos y muchos otros proyectos surgieron de un taller que se llevó a cabo en Puerto Rico el pasado diciembre, junto con 61 participantes de 16 naciones, incluyendo un representante de Sir Richard Branson, fundador del Grupo Virgin y dueño de propiedad privada en las Islas Vírgenes Británicas. Los participantes del taller identificaron los problemas más críticos para la conservación de iguanas y desarrollaron planes de acción y líneas de tiempo para los proyectos considerados con mayor prioridad.

"Este taller fue la primera iniciativa regional que ha reunido a expertos en estas especies con la crítica pública y los actores privados", dijo Carmen R. Guerrero-Pérez, Secretaria del Departamento de Recursos Naturales y Ambientales de Puerto Rico y anfitriona del taller. "La barra ha sido elevada, y ahora estamos comprometidos a implementar las acciones de recuperación que acordamos localmente y también con colaboraciones internacionales con otros países".

"El taller de diciembre fue el catalizador para las acciones de conservación que tendrán un impacto enorme en las iguanas en toda la región", dijo Bryan Arroyo, Asistente de Director de Relaciones Internacionales de la oficina de Pesca y Vida Silvestre de los Estados Unidos. "Esta oficina será un participante activo para desarrollar e implementar estos proyectos y apoyar a los gobiernos caribeños y socios en su esfuerzo por salvar un pedacito de su patrimonio natural".

"Un resultado clave de este taller fue la renovación del compromiso de coordinar en el sitio esfuerzos que beneficiarán directamente a la conservación de las iguanas, incluyendo la restauración y protección de los hábitats de las iguanas, y esfuerzos de reintroducción para promover la recuperación poblacional", dijo Allison Alberts, Oficial en Jefe de Conservación e Investigación del Zoológico de San Diego Global y co-patrocinadora del taller.

La conservación de iguanas tiene un historial comprobado de éxito, y los socios tienen la confianza de que estos proyectos tendrán un impacto duradero. En 2002, el número de Iguanas Azules de las Gran Caimán era de menos de 25 individuos. Hoy, hay más de 750 Iguanas Azules en las Gran Caimán gracias a una estrategia de conservación que incluye la protección del hábitat, reproducción en cautiverio y liberación, investigación, monitoreo y educación. La Iguana de Jamaica, considerada extinta a finales de 1980, ahora tiene 300 individuos como resultado de esfuerzos de conservación intensivos. Pero hasta estos éxitos están en riesgo cuando compiten contra la demanda de tierras y recursos. El desarrollo comercial amenaza con eliminar virtualmente todo el hábitat restante de la Iguana de Jamaica. Sin la atención de conservación constante, el éxito puede convertirse en fracaso de un día para otro.

"Muchos de estos proyectos de conservación incluyen acciones tangibles en el sitio que harán una diferencia real y duradera en la protección de las poblaciones de Iguanas del Caribe y sus hábitats", dijo Kristy Swinnerton, Directora del programa del Caribe de Island Conservation. "Estamos emocionados de ser parte de un esfuerzo extraordinario para proteger a estas especies estandarte, y proporcionar nuestro conocimiento y recursos para remover especies invasoras que amenazan la sobrevivencia de estos animales icónicos".

Las iguanas son los vertebrados nativos más grandes que quedan en muchas de las islas del Caribe. Como dispersores de semillas, son vitales para el ecosistema y ayudan a mantener saludables a las comunidades de plantas. Los mamíferos depredadores introducidos, como gastos y perros ferales, así como puercos y cabras, son la amenaza más importante para muchas especies de iguanas y sus hábitats. Otras amenazas significativas incluyen la destrucción del hábitat debido a la producción de carbón y el desarrollo de tierras, el tráfico de mascotas, cacería, mortalidad por vehículos, y competencia y reproducción interespecífica con la Iguana Verde Común introducida.

Para una presentación con fotos, haga click aquí: http://www.flickr.com//photos/islandconservation/sets/72157638055490843/show/

### Acerca de la Cooperativa para la Conservación del Paisaje en el Caribe

La LCC en el Caribe es una asociación entre agencias de investigación y manejo, organizaciones e individuos en Puerto Rico, las Islas Vírgenes de los Estados Unidos y la región del Gran Caribe, trabajando para desarrollar y proveer manejo con bases científicas adecuado para ayudar a la conservación de los recursos naturales y culturales. La LCC en el Caribe es una dentro de una red de 22 LCCs creada por el Departamento del Interior de los Estados Unidos que cubre a los Estados Unidos incluyendo Alaska, las Islas del Pacífico, partes de México y Canadá, y el Caribe. Visite www.caribbeanlcc.org. Síganos en twitter @Caribbean\_LCC.

### Acerca del Departamento de Recursos Naturales y Ambientales de Puerto Rico

El Departamento de Recursos Naturales y Ambientales de Puerto Rico fue creado en 1972. Nuestra misión es la de proteger, conservar y administrar los recursos naturales y ambientales del país para garantizar que las futuras generaciones los disfruten y para estimular una mejor calidad de vida. Por favor consulte la pagina <u>www.drna.gobierno.pr</u> para aprender más sobre nosotros.

#### Acerca de la Oficina de Pesca y Vida Silvestre de los Estados Unidos

La misión de la Oficina de Pesca y Vida Silvestre de los Estados Unidos es trabajar con otros para conservar, proteger y mejorar las poblaciones de peces, vida silvestre, plantas, y sus hábitats para el beneficio continuo del pueblo Americano. Para más información acerca de nuestro trabajo y la gente que lo hace posible, visite <u>www.fws.gov</u>. Conéctese con nosotros en la página de Facebook <u>www.facebook.com/usfws</u>, siga nuestros tweets en twitter.com/usfwshq, vea nuestro canal de YouTube en <u>www.youtube.com/usfws</u> y descargue fotos de nuestro página de Flickr en <u>www.flickr.com/photos/usfwshq/</u>

#### Acerca del Zoológico de San Diego Global

Rescatar especies que se encuentran al borde de la extinción es el objetivo del Zoológico de San Diego Global. Como un líder en conservación, el trabajo del Zoológico de San Diego Global incluye esfuerzos de conservación de vida silvestre en el sitio (representando plantas y animales) en el Zoológico de San Diego, el Parque Safari del Zoológico de San Diego y el Instituto de Investigación para la Conservación del Zoológico de San Diego, así como programas internacionales en terreno en seis continentes. El importante trabajo de conservación y ciencia de estas entidades es posible gracias a Conservación de Vida Silvestre del Zoológico de San Diego y es auspiciado en parte por la Fundación de la Sociedad Zoológica de San Diego.

### Acerca de Island Conservation

Island Conservation (IC) es una organización global no gubernamental cuya misión es prevenir extinciones al remover especies invasoras de islas. Una vez que las especies invasoras son removidas, las especies nativas y los ecosistemas se recuperan, con una pequeña ayuda adicional. Desde 1994, Island Conservation ha enviado científicos a 52 islas en todo el mundo para proteger a 994 poblaciones de 389 especies nativas. En 2012, IC puso en marcha la campaña Islas Pequeñas, Gran Diferencia (IPGD) para salvar a las especies más vulnerables de nuestro planeta. Los socios de la campaña IPGD son un conjunto de gobiernos, ONGs, e instituciones bi y multilaterales de todo mundo para apoyar la erradicación de especies invasoras. Las oficinas principales de IC se encuentran en Santa Cruz, CA con oficinas alternas en Australia, Columbia Británica, el Caribe, Chile, Ecuador, Puerto Rico, Hawái y Washington, DC.

# Caribbean Iguana Conservation Workshop:

Exploring a Region-Wide Approach to Recovery Programs

San Juan, Puerto Rico

December 3-5, 2013

Hosted by:







## The Caribbean Landscape Conservation Cooperative Bridging science and action, land and sea





Conservando la naturaleza. Protegiendo la vida.

Preventing Extinctions

SAN DIEGO ZOO INSTITUTE FOR CONSERVATION RESEARCH.

> Facilitated by Dr. Charlene Berquist and Heather Blades Missouri State University

### **Participant List**

Note: Participants list also shows country of iguana conservation interest and country office or base. Where different, country office is shown in parentheses []. A complete participant list, including organizational and contact information, is included in Appendix A.

- Masani Accimé, Republic of Haiti [US]
- Allison Alberts, United States
- Alberto Alvarez, Commonwealth of Puerto Rico
- Veronica Anadon, Commonwealth of Puerto Rico [US]
- Jacqueline Andre, Commonwealth of Dominica
- Bryan Arroyo, United States
- Arcene Bastien, Republic of Haiti
- Charlene Berquist, United States (Facilitator)
- Heather Blades, United States (Facilitator)
- Kelly Bradley, British Virgin Islands & US
- Jorge Brocca, Dominican Republic
- Fred Burton, Cayman Islands
- Paul Calle, United States
- Darío Rafael Flores Chavez, Dominican Republic
- Jose Cruz-Burgos, Commonwealth of Puerto Rico
- Christina De Jesus, Commonwealth of Puerto Rico
- Philip Deveaux, British Virgin Islands
- Andrea Donaldson, Jamaica
- Raimundo Espinosa, Commonwealth of Puerto Rico
- Boris Fabres, The Bahamas [US]
- Cielo Figuerola, Commonwealth of Puerto Rico
- Mike Fouraker, United States
- Miguel Garcia, Commonwealth of Puerto Rico
- Glenn Gerber, United States
- Matt Goetz, Cayman Islands [UK]
- Vanessa Haley-Benjamin, The Bahamas
- Jessica Harvey, Cayman Islands
- Fleur Hermanides, Sint Maarten, Kingdom of the Netherlands
- Jose Luis Herrera, Commonwealth of Puerto Rico [US]
- Karim Hodge, Anguilla
- Argel Horton, British Virgin Islands
- Sixto Inchaustegui, Dominican Republic
- Maurice Isaacs, The Bahamas
- Lyndon John, St Lucia [UK]
- Scott Johnson, The Bahamas
- Jill Jollay, Cayman Islands [US]
- David Knowles, The Bahamas
- Hannah Madden, St Eustatius, Netherlands Antilles
- Cristian Marte, Dominican Republic
- Leopoldo Miranda, United States

- Matthew Morton, St Lucia [UK]
- Brent Murry, Commonwealth of Puerto Rico [US]
- Bryan Naqqi Manco, Turks & Caicos Islands
- Amanda Neill, Jamaica [US]
- Jeff Opdycke, United States
- Lee Pagni, United States (Facilitator)
- Stesha Pasachnik, United States
- Gad Perry, British Virgin Islands [US]
- Damaris Ramírez, Dominican Republic
- Vaman Ramlall, British Virgin Islands
- Bonnie Raphael, United States
- Chloé Rodrigues, French West Indies
- Ernst Rupp, Dominican Republic
- Kimberly Stephenson, Jamaica
- Ann Sutton, Jamaica
- Kirsty Swinnerton, Commonwealth of Puerto Rico [US]
- Danae Vaccianna, Jamaica
- Tarren Wagener, Turks & Caicos Islands [US]
- Bruce Weissgold, United States
- Kathleen Wood, Turks & Caicos Islands
- Jan Zegarra, Commonwealth of Puerto Rico

### Session Agenda

This 3-day workshop proceeded according to the following agenda. Copies of each day's agenda are included in Appendix B.

Day1: 8:00 a.m. – 4:30 p.m.

- Introductions
- Promising Practice Presentations
- Setting the Agenda Identifying Conservation Successes, Critical Issues, and Resources Needed
- Large Group Prioritizing

Day 2: 8:00 a.m. - 4:30 p.m.

- Identification of Projects, Considerations, and Challenges
- Prioritizing Projects

Day 3: 8:00 a.m. – 4:30 p.m.

- Project Group Discussions Identifying Tasks and Timelines
- Large Group Discussions Accomplishing Goals

### Process

This workshop used a collaborative process to assist participants in developing realistic and workable plans to achieve specific action goals in their self-defined iguana conservation projects. The workshop facilitation team developed a systematic process, consisting of large and small group exercises, designed to allow participants to identify critical issues in iguana conservation and targeted projects to address these issues.

Prior to the workshop, session planners and facilitators developed an online survey that was completed by workshop invitees, iguana professionals, and those in related fields. Responses to this survey informed the design and structure of the workshop process. The following questions comprised this survey:

### **Pre-Conference Survey**

- Name
- Organization & Position
- Please indicate the Caribbean countries in which you live and/or work
- British Virgin Islands
- Cayman Islands
- Cuba
- Dominican Republic
- Haiti
- Jamaica
- Puerto Rico
- Turks and Caicos Islands

- US Virgin Islands
- Lesser Antilles: country or countries (Please specify in "Comment" field below)
- I do not live in the region, but I oversee people, programs, or policies in the region
- Please indicate your principle role(s) related to iguana conservation. Categories are not mutually exclusive. If more than one applies, please indicate your primary role with a one (1), secondary role with a two (2), and so on up to a maximum of four.
- Capacity building and/or financial support
- Captive care and/or management
- Ecotourism
- Education and/or outreach
- Environmental policy and/or legislation
- Health care and/or risk assessments
- Management authority and/or government oversight
- Preservation and/or restoration
- Public land management
- Private land management
- Research
- Other
- You have been invited to attend the Caribbean Iguana Conservation Workshop: Exploring a Region-Wide Approach to Recovery Programs December 3-5, 2013 in San Juan Puerto Rico. Please indicate how likely you are to attend this conference.
  - It is very likely that I will attend
  - I am not sure if I will be able to attend
  - I will not be able to attend
- Please briefly describe what you believe the primary purpose of this conference should be.
- Please list and briefly describe specific issues that you believe need to be addressed at the conference in order to move the cause of Caribbean iguana conservation forward.
- What do believe is currently being done particularly well in Iguana conservation?
- From your perspective, what are the greatest challenges for Iguana conservation generally?
- What is the greatest challenge for you in accomplishing Iguana Conservation in the country (countries) in which you work?
- What is the one thing you would most want to have happen in the country in which you work as a result of this conference?
- What do you most want to happen at the conference in order for you to leave feeling it had been a success and a good use of your time?
- Is there anything else that you think is important for the planning committee to know as they are developing the focus and structure of the conference?

During the 3-day workshop participants identified critical issues for iguana conservation, prioritized these issues in order of importance, and identified potential projects as well as project challenges within each issue. Projects were prioritized by the entire group. For each of the highest prioritized projects, participants self-selected into project groups. Each project group selected a project coordinator, identified action steps to accomplish the project, assigned

individuals tasked to accomplish each action step, and established a timeline for task and project completion.

At the conclusion of the workshop the entire group discussed processes for communication and information exchange.

### **Promising Practice Presentations**

Day 1 began with a welcome from Carmen Guerrero, Secretary of DNER and Bryan Arroyo, Assistant Director, International Affairs, USFWS. Following this welcome, participants provided brief introductions. Next, a series of three "promising practice" presentations were provided by Fred Burton, discussing the Blue Iguana Project, Kirsty Swinnerton, discussing invasive species management for iguana conservation, and Brent Murry, discussing the Caribbean Landscape Conservation Cooperative.

### **Identification of Critical Issues**

At the conclusion of these presentations, participants began the process of identifying critical issues for iguana conservation. For this activity participants were divided into 10 small groups. Each group selected a moderator and notetaker and discussed the following questions:

- Question 1: What are the critical issues that we face in our iguana conservation efforts?
- Question 2: What are the factors that influence successful iguana conservation?

Following these small group discussion, the issues and factors influencing successful iguana conservation were then discussed, added to, and refined by the large group. Critical issues were then prioritized by the group. The prioritized list, along with the number of votes for each issue, is as follows:

Issues	Votes
invasive animals	78
charcoal burning	63
lack of enforcement	62
protection and preservation of critical habitats	57
marketing	52
funding	51
financial sustainability of conservation and program sustainability	49

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development activities	45
political will to uphold policies	43
need to bridge gap between research and results and government and conservation	42
education	39
private land management	38
need for involvement of local Universities in research	36
actively managing genetic diversity	36
loss of habitat	36
impact from other species - hybridization	33
local legislative protection and legislative inadequacies	31
protection of species but not of habitat	31
local buy-in	31
integrated planning	28
capacity of organizations	27
road and port development and habitat destruction	26
lack of national physical development plan	26
protection and monitoring of remote sites	26
poverty	24
jobs for students in conservation	23
climate change	23
adequate control of domesticated pets	23
human attitudes towards iguanas	20
cultural indifference towards iguana conservation	19
insufficient biosecurity at national level	19

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lack of tools for efficient eradication	19
scientific expertise and availability	17
road mortality	17
awareness - hostility and people liking them and wanting to keep them	15
lack of data suppository	15
proper data collection and statistics	15
dealing with small islands' meta populations	15
hostility towards lizards	14
tourism	14
control of human populations	14
institutional competition and competition between individuals and groups	14
lack of research on green iguana impact	13
lack of human resources	13
lack of research on natural history of iguanas	12
cruise ships	12
invasive plans	12
international support for land purchases	12
illegal pet trade	11
perception - what people believe about the animals	10
potential for emergent diseases	10
obtaining volunteers and related issues	10
land ownership	9
ecotourism gone awry	9
aligning legit farming with free range control	9

lack of communication	9
human disturbance	8
sustainable harvest of iguanas	8
political fragmentation	8
ambiguity between green iguanas	7
private land policies	6
land tenure	6
heritage - traditional attitudes towards iguanas - cultural practices	6
number of starter animals - gene pool	6
poaching	6
conflict in legislation	6
management of species over large areas	6
policy buy in	4
lack of assurance colonies in situ and ex situ	3
conservation timeframe vs. political timeframe	3

During the prioritization process, many participants expressed concerns that many of the issues identified were similar, and they thought it would be appropriate to combine these issues in order to have a more accurate representation of the opinion of the large group. Accordingly, on the evening of Day 1 the conference planning committee met and reviewed the prioritized issues voted upon by the large group in order to combine those that were similar. After combining issues (and the associated votes on these issues), the following 14 issues emerged as the most critical issues identified by the group:

- Issues of iguana perception and awareness (human attitudes and beliefs, hostility towards iguanas, cultural attitudes and traditional practices towards iguanas, cultural indifference)
- Research, data management, and expertise (lack of data repository, scientific expertise and availability, proper data collection and statistics, lack of research on natural history of iguanas, need for involvement of local Universities in research, jobs for students in conservation)
- Invasive animals and plants

- Development activities and human disturbance
- Charcoal burning
- Lack of enforcement
- Private land policies, land management, land ownership, and land tenure
- Protection and preservation of critical habitats
- Green iguanas (impact from other species hybridization; ambiguity between green iguanas; lack of research on green iguana impact)
- Funding
- Financial sustainability of conservation and program sustainability
- Political will to uphold policies
- Genetic diversity (number of starter animals gene pool; actively managing genetic diversity)
- Need to bridge gap between research and results and government and conservation

Additionally, the groups, during their discussion on Day 1, identified the factors that influence successful Iguana conservation. The factors identified by the groups were as follows:

- education
- enforcement/prosecution
- eco-tourism properly implemented
- strategies with clear beginnings and endings
- well trained and passionate local overseers
- good science
- predator control
- media
- stakeholder collaboration
- providing alternative livelihoods
- consistency
- funding
- open-mindedness
- adaptive management
- sharing lessons learned
- long term commitment
- protected areas that are actually protected
- Caribbean country interchange of individuals
- prosecution chain
- partnerships
- local buy-in and understanding
- strategic plan with specifics
- volunteerism
- marketing
- threat mitigation
- good communication
- program not strictly academic use of festivals and animal ambassadors
- sugar daddies
- controlled and sustainable development
- actively managing genetic diversity
- support and active involvement of community
- in situ breeding
- capacity building
- champions for the cause
- proper data collection and statistics
- an increasing number of achieved goals
- restoration of food supply
- high hatchability and low mortality
- community ownership
- socioeconomic benefits
- data suppositories and other resources for use
- financial sustainability
- involvement of local University
- science-based decisions

# **Identification of Potential Projects, Considerations, and Challenges**

At the start of Day 2, participants were presented with the list of prioritized issues and participated in small group discussions to identify potential projects, considerations, and challenges to address each issue. This was done in a "lightening round" format where tables were assigned a single issue and participants were divided into small groups at each table. Each group selected a moderator and notetaker and discussed their assigned issue for approximately 10 minutes. At the end of the allotted time the participants moved to a new table, with the moderator and notetaker remaining at their original table. The goal of this activity was to allow as many workshop participants as possible to have an opportunity to provide suggestions for projects that could be undertaken to address each priority issue.

At the conclusion of the small group discussions, each group's notetaker and facilitator wrote the projects they had brainstormed on newsprint around the room. The group as a whole then processed, added to, and refined these lists.

The lists of projects under each issue were then prioritized by the group using ballots that allowed participants to select the 8 projects they felt would be the most realistic and effective for each of the prioritized issues or goals. The list of projects, along with the number of votes for each project, was as follows:

Project #		# of votes
	Issues of Iguana Perception and Awareness	
1	Develop ecotourism opportunities (conservation = money)	0
2	Caribbean-wide Iguana day + regional festivals with costumed iguana mascots	5
3	Template for awareness material (RARE format), adaptable for each region	6
4	Standardized talking points for iguana importance/value, questions and benefits to habitat, tailored for each audience type	6
5	Saturation of all possible media venues: folk tales, legends, songs, art, logos, cartoons, cocktails, toys, dance competition	6
6	Calculate ecological services and explain value to public - conservation= money	6
7	Social media and commercials in first-person (iguana point-of-view) and David Attenborough-style documentaries	6
8	Schools: incorporate iguanas in curriculum and live iguana visits and contests	2
9	Public invited and involved in iguana events = release of head-started or hatching	1
10	Conservation message must incorporate IAS education and show differences with green iguana	2
11	Student internships to work on local projects and scholarships for best students, require students to do outreach	1
12	Accumulate success stories and stories of assessment as models to follow	2
13	Iguanapedia	1
14	Every island has different issues	0
15	Earth-watch style volunteering vacations	0

	Research, data management, and expertise	
16	Develop regional multidisciplinary committee to facilitate sharing science needs and information	1
17	Create on-ground field research and monitoring/conservation techniques training - multinational exchange (shadowing)	5
18	Develop regional research/information database - species by species / island by island gap analysis - database of research needs to inform academic research - access and accessibility	13
19	Develop live listserv/forum for this group	2
20	Perform population and vulnerability assessments with a strong emphasis on genetic diversity planning	5
21	Develop student support! - develop local internship, scholarship to support local students at local and international institutions to do local work, create more conservation jobs for University graduates	4
22	Develop citizen science monitoring and other programs	2
23	Lobby scientists to make unpublished data available (develop intellectual property rights documents/agreement re: raw data)	1
24	Best practices - PARC	0
	Invasive Animal and Plants	
25	Consolidate and update island conservation database of invasive species threatening iguanas at sub-national level *green iguanas, raccoons	4
26	Identify and share best practice, policy, laws for biosecurity	7
27	Pilot projects - eradication and control, Dominican Republic C. ricordi nests, others; funded training on techniques	8
28	Regional coordinated effort to link agricultural and environmental policy re: invasive livestock (goats, cattle, etc.)	2
29	Regional public awareness project to raise understanding of impacts of invasive species - guidelines (standardized) for	6

	eradication/containment including plants	
30	Study of socio-economic benefits of invasives control/eradication - outputs to influence decision makers	4
31	Horizon scanning study of potential risks from new invasions	2
32	Link animal welfare group goals with invasive species goals for responsible pet ownership	0
33	Pilot projects on predator exclusion fencing (+ green iguana exclusion)	2
34	Research (experiments) into performance of predator control methods in tropics	3
35	Research into cost-effectiveness of control vs. eradication vs. exclusion	5
36	Review existing best practices for invasive vertebrate control and eradication and their applicability to the Caribbean	7
37	Prioritization process for most critical islands in need of eradication	5
	Development activities and human disturbance	
38	Require environmental impact statements/strategic environmental assessments	1
39	Develop/implement lad use plans that identify iguana critical habitat/coastal zone management plans that are compatible with iguana conservation/best management practices - challenging because you need to consider multiple stakeholders/ community/interests	9
40	Identify private lands where iguanas occur and promote/establish cooperative agreements/habitat conservation plans - need to offer iguana friendly alternatives	5
41	Need a Caribbean/regional steering body that pushes/promotes iguana conservation/best management practices - who and how the message gets across - identify key community members (IUCN, IIF, ISG, or sub group?)	11
42	Socio-economic analysis that weighs jobs with ecosystem benefits (ecotourism)	0

43	Address health issues from feeding iguanas	0
44	Identify iguana sanctuary areas for long-term protection/reintroductions	7
45	Provide maps of iguana occurrence/important areas for investors/developers - caution with poachers/illegal trade	1
46	Provide capacity building to specific governments with critical development issues	2
47	Draft terms of references for EIA/SEA with supplemental information focuses on iguanas	4
48	Maps with corridors	0
	Charcoal burning	
49	Encourage charcoal manufacturing from invasive or farmed species (guide to best management practices)	0
50	Do a socio-economic analysis of the chain of custody	2
51	Understand a public awareness campaign to discourage use/burning (local/international)	0
52	Certification of sustainable charcoal	0
53	Promote use of alternative fuels/stoves	2
54	Develop program of community management of forests and law enforcement	1
55	Create a formal recommendation from this or other international groups to the related governments to control charcoal burning	2
56	Utilize drones or helicopters to improve surveillance and enforcement for forest protection; helicopters can release water on identified kilns	2
57	Create a guide to inform managers about the problems of charcoal production in countries where it is not used	3
58	Identify other NGOs that are working on this issue and collaborate with them	1

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59	Apply for a large fund to address charcoal burning at a regional level	5
60	Create alternative livelihood projects	5
61	Put pressure on governments to control charcoal burning through international agreements that already exist	2
62	Reforest areas that have been cut/damaged	1
63	Provide charcoal kilns to maintain more control of its production	1
	Lack of regulation, enforcement, and prosecution	
64	Assessing each country's enforcement process, from the field to the courts (legislation, enforcement, and prosecution) to determine deficiencies - why are people poaching? Who are there folks?	11
65	Using wildlife enforcement network (WEN) to coordinate cooperation between enforcement agencies regionally (common criminals); to facilitate communication interdepartmentally within individual countries; for information sharing on law enforcement; identifying a regional data enforcement coordinator	10
66	Develop training curriculum - volunteer wardens, field officers	0
67	Education of prosecutors, judges, and legislators	3
68	Lobbying and changing legislature	0
69	Develop a wildlife hotline - use a reward or recognition program	0
70	International PR and pressure (tourism)	0
71	Investigating drone use as an alternative for surveillance	0
	Private land policies, land management, land ownership, and tenure	
72	Survey policies and enforcement region-side - share and distribute	0

73	Lobby governments for land available for iguanas and land purchasing; incentives; mitigation; national development plans to incorporate iguanas; iguanas are owned by government	2
74	Survey and list ownerships of critical habitats	3
75	Find and document successful private land partnerships for iguana conservation; create database and list of experts; create database and list of case studies	2
76	Form a regional umbrella body to assist with lobbying efforts - ISG subcommittee? LCC?	1
77	Develop guidelines for iguana friendly agricultural development, private land development options, development, and best management practices / "code of conduct"	6
78	Develop an "iguana-friendly" certification program/stamp of approval - high end resorts, large scale agriculture	1
-	Naturally for communication not land calca in country.	0
79	Network for communication re: land sales in country	0
79	Protection and preservation of critical habitats	
80		2
	Protection and preservation of critical habitats	
80	Protection and preservation of critical habitats         Define characteristics/components of critical habitats for individual species.	2
80 81	Protection and preservation of critical habitats         Define characteristics/components of critical habitats for individual species.         Identify critical/essential habitats.	2
80 81 82	Protection and preservation of critical habitats         Define characteristics/components of critical habitats for individual species.         Identify critical/essential habitats.         Identify private lands and owners and develop maps/database for each island and country	2 7 0
80 81 82 83	Protection and preservation of critical habitats         Define characteristics/components of critical habitats for individual species.         Identify critical/essential habitats.         Identify private lands and owners and develop maps/database for each island and country         Develop methods for horizon scanning (lands coming up for sale, development projects, land use changes)	2 7 0 2
80 81 82 83 84	Protection and preservation of critical habitats         Define characteristics/components of critical habitats for individual species.         Identify critical/essential habitats.         Identify private lands and owners and develop maps/database for each island and country         Develop methods for horizon scanning (lands coming up for sale, development projects, land use changes)         Acquire (buy) critical habitat – local NGO ownership	2 7 0 2 2 2

88	Establish management plans for individual protected areas (including private lands)	5
89	Caribbean Challenge – input data to enhance selection of critical habitat for protection	0
90	Develop strategies for habitat restoration	4
91	Create action plan to prevent invasive species/biosecurity	1
92	Create "boiler plate" language for no-net loss, mitigation, EIS (EIA), penalties for use of protected areas	3
93	Develop outreach programs for communities surrounding/adjacent to protected/critical habitat	1
94	Provide incentives to private land owners to maintain habitat on private land owners	2
	Green Iguanas	
95	Use as a sustainable food (including iguana round-ups) – not in Eastern Caribbean – problems: mis-identification, captive breeding, population sustained	1
96	Research info impacts and vectors	0
97	Develop biosecurity guidelines and implement (include in law)	5
98	Information sharing/database of successes and failures – link with ISG invasive green iguana sub-group – include animal welfare info re: euthanasia	3
99	Research on eradication feasibility (rapid response) -pilot project(s)	2
100	Research on methods: control and eradication	5
101	Regional strategy – emergency teams for rapid response; emergency funding (regional); database, mapping, existing biosecurity, sources	5
102	Ecological research on green iguanas in invasive range	2

103	Captive assurance programs (native iguanas)	2
104	Pilot fencing of native iguanas	0
105	Public reporting of iguana sightings (figure out how to make it work)	0
106	Update species action plans and include alien iguana responses	3
	Funding	
107	Available resource assessment: a compendium of resources (all levels – local to international; restricted and unrestricted)	5
108	Training for developing grant writing skills, budgeting, reporting, and developing and maintaining donor relationships	6
109	Networking with USA/UK/CAN partnership organizations for tax-deductible donations	0
110	Development of low-cost feasible management strategies	1
111	Development of financial management strategies with financial institutions	0
112	Identification of common problems between countries in region for collaborative project applications	6
113	Creation of community/corporate awards/sponsorship incentives	0
114	Creation of political incentives to government officials for funding (lobbying for creation/resurrection/proper use of conservation funds)	1
115	Expanding IIF funding from small to large grants	1
116	Networked prioritization of critical needs throughout region	0
117	Mentoring by successfully funded organizations/programs for how to attract and retain funders	2
118	Paid volunteer program implementation	0

119	Attracting bequests: endowments wanted, dead or alive!	0
120	Seminar/training workshop on new/alternative funding methods: what works, what doesn't; how to use them (social media, crowd sourcing, microgrants, smartphones/text money, special credit cards, direct debits, diaspora remittance/appeal, round-ups, tabling, marketing, events, check-ins, adopt-an-iguana, zoo meters – to be trained in best use – a little info is more dangerous than none, and if any of us were financial experts we could not have careers in conservation.	9
	Financial Sustainability of Conservation and Programs and Sustainability	
121	Nature tourism – use fee, green fund (example) 0.1%	3
122	Sustainable business team to prepare a financially sustainable plan	3
123	Conservation easement	1
124	Government should implement a taxation system to go towards iguana conservation	2
125	Getting government to commit	0
126	Round-up – e.g., iguana Red Cross	0
127	Plus stamps	0
128	Creating a "value" for donation towards conservation, i.e., carbon credits	0
129	Development of an iguana trust fund, endowment funds	4
130	Lobbying the Caribbean Challenge for iguana funding or creating a similar type instruction	0
131	Identifying alternative head start facility similar to Necker	0
132	Penalties for environment violations be devoted to iguana conservation, at least in part	0
	Political will to uphold policies	

133	Summit (similar to coral reef task force)	2
134	Outreach and awareness: political ambassador?	1
135	Award: greatest contribution to iguana conservation	0
136	Pressure on overseas territories	0
137	Understand political structure (local) and contact person and elections/constituents, etc.	0
138	Media pressure	1
139	Economic value of iguanas: see dispersal, ecosystem, tourism	2
140	Corporate champion to influence government	2
141	Creation of lobby group to influence (or inform) politicians about problem	2
142	Caribbean biological corridor – supported by UN and signed by PR, Jamaica, Haiti	2
143	Getting all stakeholders together to try to raise awareness – participating process	0
144	Include iguanas in bigger picture event eg., CBD, Caribbean Biodiversity Fund, iguanas tied to forests = \$\$	5
	Genetic Diversity	
145	Guidelines for sample collection and banking – encourage everyone to collect samples; use and refine IUCN reintroduction guidelines, SD + MS state banking	7
146	Understanding the effects of small populations – case studies: BVI, Allen's Keys, TCI, Cayman Brac baselines: Mona, Little Cayman; identifying point people	6
147	Use above studies to drive guidelines for translocations and rescue populations, etc.; use and	0

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148	Use above project to drive domestic legislation to regulate local movement iguanas	0
149	Biosecurity issues/monitor hybridization; bank samples, identify genetics point person for rapid ID of "strangers"	0
150	Expand on ISG genetics working group document – summary of past, ongoing work and future needs; disseminate to workshop group for input	0
151	List and track all ex-situ breeding efforts	0
152	Genetics training workshop – specifically for breeding programs personnel and overseers.	0
	Need to bridge gap between research, results, government, and conservation	
153	Promote iguana specialist group bibliography by making it available to in-country wildlife managers – need resources for translation	2
154	Develop a guide for best practices for researchers to communicate their results to governments – include deadlines – economic and social value	6
155	Create a 1-page state of the iguana overview of conservation results and priorities annually for each country (ISG/members)	5
156	Ask individual governments for a list of research priorities – have ISG/IIF utilize and disseminate	2
157	Create a template that local governments provide to researchers to communicate their results – identify the person in each country responsible for receiving the report	1
158	Have ISG obtain and electronically catalog past/future iguana related reports	1
159	Create a standard questionnaire for governments designed to elicit their research priorities – compile into a regional report	2
160	Reprint and distribute (and update if needed) iguanas of the west indies poster	1
161	Create a regional training session (multi-team) for scientists on science communication – identify resource people	1

On the evening of Day 2, the conference planning committee met and reviewed the prioritized list of projects voted upon by the large group. The consensus of the committee was that many of the projects identified were similar, and they thought it would be appropriate to combine these projects in order to have a more accurate representation of the opinion of the large group. After combining projects, the following 14 emerged as the most critical projects identified by the group

- Projects 3, 4, 5, 6, 7
  - o Template for awareness material (RARE format), adaptable for each region
  - Standardized talking points for iguana importance/value, questions and benefits to habitat, tailored for each audience type
  - Saturation of all possible media venues: folk tales, legends, songs, art, logos, cartoons, cocktails, toys, dance competition
  - Calculate ecological services and explain value to public conservation= money
  - social media and commercials in first-person (iguana point-of-view) and David Attenborough-style documentaries
- Project 18
  - Develop regional research/information database species by species / island by island gap analysis database of research needs to inform academic research access and accessibility
- Projects 36, 26
  - Identify and share best practice, policy, laws for biosecurity
  - Review existing best practices for invasive vertebrate control and eradication and their applicability to the Caribbean
- Project 41
  - Need a Caribbean/regional steering body that pushes/promotes iguana conservation/best management practices who and how the message gets across identify key community members (INCN, IIF, ISG, or sub group?)
- Project 77
  - Develop guidelines for iguana friendly agricultural development, private land development options, development, and best management practices / "code of conduct"
- Project 112
  - Identification of common problems between countries in region for collaborative project applications
- Project 145
  - Guidelines for sample collection and banking encourage everyone to collect samples; use and refine IUCN reintroduction guidelines, SD + MS state banking
- Project 27
  - Pilot projects eradication and control, Dominican Republic Ricordi nests, others...; funded training on techniques
- Project 29

- Regional public awareness project to raise understanding of impacts of invasive species guidelines (standardized) for eradication/containment including plants
- Projects 64, 65
  - Assessing each country's enforcement process, from the field to the courts (legislation, enforcement, and prosecution) to determine deficiencies why are people poaching? Who are there folks?
  - Using wildlife enforcement network (WEN) to coordinate cooperation between enforcement agencies regionally (common criminals); to facilitate communication interdepartmentally within individual countries; for information sharing on law enforcement; identifying a regional data enforcement coordinator
- Projects 39, 44, 81
  - Develop/implement land use plans that identify iguana critical habitat/coastal zone management plans that are compatible with iguana conservation/best management practices challenging because you need to consider multiple stakeholders/ community/interests
  - **o** Identify iguana sanctuary areas for long-term protection/reintroductions
  - Identify critical/essential habitats.
- Projects 108, 120
  - Training for developing grant writing skills, budgeting, reporting, and developing and maintaining donor relationships
- Project 146
  - Understanding the effects of small populations case studies: BUI, Allen's Keys, TCI, Cayman Brac baselines: Mona, Little Cayman; identifying point people
- Project 154
  - Develop a guide for best practices for researchers to communicate their results to governments include deadlines economic and social value

# **Action Plans**

Once the group had prioritized projects to address their most pressing or important issues, participants self-selected into Project Working Groups to focus on each of the projects. Each group was charged with establishing the tasks that needed to be accomplished for their project, identifying the action steps that needed to be undertaken, determining who would be responsible for completing the action steps, and creating a timeline for the project.

The specific plans and Action Steps developed by each group are listed in Appendix C.

# **Conclusion: Where do we go from here?**

There was significant discussion about strategies to continue the momentum begun in this workshop. There were many possibilities. Transparency and ease of information transfer and

exchange were identified by planners and participants as critical. Participant suggestions for retaining connections included:

- 1. A workshop website that would continue to connect people. The website could include specific information from the workshop, research reports, useful tools such as Google groups and Google mapping with automatic updating.
- 2. Google groups. Participants will contact Lee Pagni if they do not want to participate in Google groups. Google groups would be private for participants only. External participants would need to request access to these groups;
- 3. Posting of participant biographies;
- 4. Participant's email and contact information.

There were concerns expressed that participants would not be able to make significant progress on or complete the 14 individual projects proposed and discussed during day 3 of the workshop. To address this concern the following suggestions were made:

- 1. If there is a champion for projects the projects will move forward;
- 2. If participants have committed to projects or action steps that they are unable to complete they need to notify their groups;
- 3. Including in the website an auto reminder of project/action step due dates.

### **Appendix A: Workshop Participant List**

\*Country of iguana conservation interest and country office or base. Where different, country office is shown in parentheses []

Surname	First Name	Country Office and Country of Interest for Iguana Conservation*	Organization/Agency	Position	Organization/ Agency Type	Email address
Hodge	Karim	Anguilla	Department of Environment, Government of Anguilla	Director of Environment	Government	karim.hodge@gov.ai
Deveaux	Philip	British Virgin Islands	Department of Agriculture, Ministry of Natural Resources & Labour	Veterinary Assistant	Government	<u>bvigov vet@gov.vg</u>
Horton	Argel	British Virgin Islands	Conservation & Fisheries Department, Ministry of Natural Resources & Labour	Professional Cadet/Marine Biologist, Coastal Zone Management Division	Government	<u>AHorton@gov.vg</u>
Ramlall	Vaman	British Virgin Islands	Necker Island	Wildlife Conservation Manager	Private	Vramlall@neckerisland.virgin.com
Bradley	Kelly	British Virgin Islands [US]	Fort Worth Zoo	Conservation Biologist	NGO	kbradley@fortworthzoo.org
Perry	Gad	British Virgin Islands [US]	Texas Tech University	Associate Professor, Conservation Biology	Academic	gad.perry@ttu.edu
Burton	Fred	Cayman Islands	Blue Iguana Recovery Program	Director	National Trust	fjburton@blueiguana.ky
Harvey	Jessica	Cayman Islands	Department of Environment	Research Officer, Terrestrial Research Unit	Government	jessica.harvey@gov.ky
Goetz	Matt	Cayman Islands [UK]	Durrell Wildlife Conservation Trust	Head of Herpetology Department, Jersey Zoo (UK)	NGO	Matt.Goetz@durrell.org
Jollay	Jill	Cayman Islands [US]	Iguana Specialist Group (IUCN)	Member	Private	jmj@airmail.net
Andre	Jacqueline	Commonwealth of Dominica	Forestry Wildlife & Parks Division, Ministry of Agriculture & Forestry	Forest Officer/Research and Monitoring	Government	andrej@dominica.gov.dm

Surname	First Name	Country Office and Country of Interest for Iguana Conservation*	Organization/Agency	Position	Organization/ Agency Type	Email address
Alvarez	Alberto	Commonwealth of Puerto Rico	Department of Natural and Environmental Resources	Biologist	Government	aalvarez@drna.gobierno.pr
García	Miguel	Commonwealth of Puerto Rico	Department of Natural and Environmental Resources	Director, Bureau of Fisheries and Wildlife	Government	magarcia@drna.gobierno.pr
Cruz-Burgos	José	Commonwealth of Puerto Rico	US Fish & Wildlife Service, Caribbean Ecological Services Field Office	Endangered Species Program Coordinator for the Caribbean	Government	Jose Cruz-Burgos@fws.gov
Zegarra	Jan	Commonwealth of Puerto Rico	US Fish & Wildlife Service, Caribbean Ecological Services Field Office	Endangered Species Program	Government	jan zegarra@fws.gov
Murry	Brent	Commonwealth of Puerto Rico [US]	US Fish & Wildlife Service	Caribbean LCC Science Coordinator	Government	brent_murry@fws.gov
De Jesus	Christina	Commonwealth of Puerto Rico	University of Puerto Rico, Department of Biology	student	Academic	<u>chri360@gmail.com</u>
Figuerola	Cielo	Commonwealth of Puerto Rico	University of Puerto Rico, Department of Biology	PhD student	Academic	<u>cfiguerola@gmail.com</u>
Espinoza	Raimundo	Commonwealth of Puerto Rico	The Nature Conservancy (TNC)	Puerto Rico Conservation Coordinator	NGO	respinoza@tnc.org
Anadón	Verónica	Commonwealth of Puerto Rico [US]	BirdLife International	IBA Program Manager, Americas	NGO	Veronica.Anadon@birdlife.org
Herrera	José Luis	Commonwealth of Puerto Rico [US]	Island Conservation	Island Restoration Specialist	NGO	jose.herrera@islandconservation.org
Swinnerton	Kirsty	Commonwealth of Puerto Rico [US]	Island Conservation	Caribbean Program Manager	NGO	kirsty.swinnerton@islandconservation.org
Brocca	Jorge	Dominican Republic	Sociedad Ornitologica de la Hispaniola	Executive Director	NGO	jbrocca@soh.org.do

Surname	First Name	Country Office and Country of Interest for Iguana Conservation*	Organization/Agency	Position	Organization/ Agency Type	Email address
Chavez	Darío Rafael Flores	Dominican Republic	Ministry of Environment & Natural Resources, Biodiversity Division		Government	Dario.flores@ambiente.gob.do
Ramírez	Damaris	Dominican Republic	Ministry of Environment & Natural Resources, International Cooperation Division	Administrative Coordinator	Government	d.ramirez@medioambiente.gob.do
Incháustegui	Sixto	Dominican Republic	Grupo Jaragua	Research biologist	NGO	sixtojinchaustegui@yahoo.com
Rupp	Ernst	Dominican Republic	Grupo Jaragua	Research biologist	NGO	ErnstRupp@web.de
Marte	Cristian	Dominican Republic	Museo Nacional de Historia Natural Prof. Eugenio de Jesús Marcano.	Curator of Herpetology	Government	cristian marte@hotmail.com
Rodrigues	Chloé	French West Indies	Office de la Chasse et de la Faune Sauvage		Government	chloe.rodrigues@oncfs.gouv.fr
Donaldson	Andrea	Jamaica	National Environment and Planning Agency (NEPA)	Manager, Ecosystems Management Branch	Government	Adonaldson@nepa.gov.jm
Stephenson	Kimberly	Jamaica	University of the West Indies	PhD student	Academic	kimberly.stephenson@mymona.uwi.edu
Sutton	Ann	Jamaica	Caribbean Coastal Management Foundation (C-CAM)		NGO	asutton@cwjamaica.com
Vaccianna	Danaë	Jamaica	Urban Development Corporation (UDC)	Environmental Coordinator	Government	DVaccianna@udcja.com
Neill	Amanda	Jamaica [US]	Botanical Research Institute of Texas	Director of the Herbarium (BRIT-SMU-VDB)	NGO	aneill@brit.org
Bastien	Arcene	Republic of Haiti	Départemental du Ministère de l'environnement du Sud-Est	Director	Government	arcenebastien18@hotmail.com
Accimé	Masani	Republic of Haiti [US]	International Iguana Foundation	Project Manager (Haiti)	NGO	masani.accime@gmail.com

Surname	First Name	Country Office and Country of Interest for Iguana Conservation*	Organization/Agency	Position	Organization/ Agency Type	Email address
Madden	Hannah	St Eustatius, Kingdom of the Netherlands	STENAPA, National Parks Organization of St Eustatius	National Park Ranger	NGO	hannah.madden.stenapa@gmail.com
Hermanides	Fleur	Sint Maarten, Netherlands Antilles	Department of Public Health (Environment and Hygiene)	Senior Policy Worker & Emilio Wilson Estate Foundation representative	Government	fleur.hermanides@gmail.com
John	Lyndon	St Lucia [UK]	Royal Society for the Protection of Birds (RSPB)	Caribbean Invasive Species Project Coordinator	NGO	Lyndon.John@rspb.org.uk
Morton	Matthew	St Lucia [UK]	Durrell Wildlife Conservation Trust	Eastern Caribbean Manager	NGO	mmorton@fastmail.fm
Isaacs	Maurice	The Bahamas	Department of Agriculture, The Government of The Bahamas	Veterinary officer	Government	free4theresa@yahoo.com
Haley- Benjamin	Vanessa	The Bahamas	The Bahamas National Trust	Director of Science & Policy	National Trust	<u>vhaley-benjamin@bnt.bs</u>
Johnson	Scott	The Bahamas	The Bahamas National Trust	Education Officer	National Trust	sjohnson@bnt.bs
Knowles	David	The Bahamas	The Bahamas National Trust	Director of Parks	National Trust	dknowles@bnt.bs
Fabres	Boris	The Bahamas [US]	Island Conservation	Caribbean Regional Director	NGO	boris.fabres@islandconservation.org
Naqqi Manco	Bryan	Turks & Caicos Islands	Department of Environment and Maritime Affairs (DEMA)	Caicos Pine Recovery Project Manager	Government	bnaqqimanco@gmail.com
Wood	Kathleen	Turks & Caicos Islands	Department of Environment and Maritime Affairs (DEMA)	Director	Government	<u>kw@swa.tc</u>
Wagener	Tarren	Turks & Caicos Islands [US]	Fort Worth Zoo	Director of Animal Programs and Conservation	NGO	Twagener@fortworthzoo.org
Alberts	Allison	United States	San Diego Zoo Institute for Conservation Research	Chief Conservation & Research Officer	NGO	aalberts@sandiegozoo.org
Arroyo	Bryan	United States	US Fish & Wildlife Service, International Affairs	Assistant Director for International Affairs	Government	bryan arroyo@fws.gov

Surname	First Name	Country Office and Country of Interest for Iguana Conservation*	Organization/Agency	Position	Organization/ Agency Type	Email address
Weissgold	Bruce	United States	US Fish & Wildlife Service, Office of Management Authority	CITES Policy Officer, Office of Management Authority	Government	Bruce_Weissgold@fws.gov
Miranda	Leopoldo	United States	US Fish & Wildlife Service, Region 4	Assistant Regional Director for Ecological Services	Government	Leopoldo Miranda@fws.gov
Calle	Paul	United States	Wildlife Conservation Society, Clinical and Pathology Department	Chief Veterinarian & Director Zoological Health Program	NGO	pcalle@wcs.org
Raphael	Bonnie	United States	Wildlife Conservation Society	Department Head, Zoological Health Program	NGO	braphael@wcs.org
Fouraker	Mike	United States	Fort Worth Zoo	Executive Director	NGO	MFouraker@fortworthzoo.org
Gerber	Glenn	United States	San Diego Zoo Institute for Conservation Research	Caribbean Program Head, Applied Animal Ecology	NGO	ggerber@sandiegozoo.org
Opdycke	Jeff	United States	San Diego Zoo Institute for Conservation Research	Associate Director, Conservation Partnership Development	NGO	jopdycke@sandiegozoo.org
Pasachnik	Stesha	United States	San Diego Zoo Institute for Conservation Research & Iguana Specialist Group	Postdoctoral Associate, Applied Animal Ecology, ISG Co-chair	NGO	sapasachnik@gmail.com
Pagni	Lee	United States (Facilitator)	San Diego Zoo Institute for Conservation Research	Consultant & Conservation education specialist	NGO	lee@studiomundo.com
Berquist	Charlene	United States (Facilitator)	Missouri State University	Professor of Communications, Director Center for Dispute Resolution	Academic	CharleneBerquist@MissouriState.edu
Blades	Heather	United States (Facilitator)	Missouri State University	Associate Director of the Center for Dispute Resolution	Academic	HBlades@MissouriState.edu

Appendix B

# **Participant Agenda** *Tuesday, December 3, 2013*

7:00-8:30	Breakfast and Conversation
8:30-9:15	Welcome with Carmen Guerrero, Secretary of DNER Bryan Arroyo, Assistant Director, International Affairs, USFWS
-	Participant Introductions you are and what area your organization represents
10:15-10:30	Break
10.30-11.00	Promising Practice Presentation: Fred Burton - Blue Iguana project
11:00-11:30	Promising Practice Presentation: Kirsty Swinnerton, Invasive Species Management
11.30-12.00	Promising Practice Presentation - CLCC
12:00-1:30	Lunch and Networking
	Small Group Discussion: Setting the Agenda of the factors that influence successful Iguana conservation of critical issues
2:30-3:15	Report Out and Debrief
3:15-3:30	Break
3:30-4:15	Large Group Prioritizing of Issues
4:15-4:30	Day 2 Overview and Evaluation

# **Participant Agenda**

# Wednesday, December 4, 2013

7:00-8:30	Breakfast and Conversation
8:30-9:15	Overview and Priorities
9:15-10:30	Small Group Discussion 1: Identifying potential projects, considerations, and challenges
10:30-10:45	Break
10:45-12:00	Small Group 1: Debrief and Evaluate
12:00-1:30	Lunch and Networking
1:30-2.45	Small Group Discussion 2: Identifying potential projects, considerations, and challenges
2.45-3:30	Small Group 2: Debrief and Evaluate
3:30-3:45	Break
3:45-4:15	Prioritizing Projects for Day 3
4:15-4:30	Day 2 Overview and Evaluation

# **Participant Agenda** *Thursday, December 5, 2013*

- 7:00-8:30 Breakfast and Conversation
- 8:30-8:45 Day 3 Overview
- 8:45-10:15 Project Group Discussion of Prioritized Projects Part 1: Identifying Tasks and Establishing Timelines—WHAT, HOW, WHO, WHEN, and Communication and Accountability
- 10:15-10:30 Break
- 10:30-12:00 Project Group Discussion of Prioritized Projects Part 2: Identifying Tasks and Establishing Timelines—WHAT, HOW, WHO, WHEN, and Communication and Accountability
- 12:00-1:30 Lunch and Networking
- 1:30-3:15 Report Out and Debrief Projects
- 3:15-3:30 Break
- 3:30-4:00 Large Group Discussion: Accomplishing Goals, Continuing the Dialogue, Where Do We Go From Here?
- 4:00-4:30 Wrap up and Evaluation

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# **Appendix C: Project Plans**

# Identifying Tasks and Establishing Timelines Worksheet

**Project Group:** 29 – "Regional public awareness project to raise understanding of impacts of invasive species – guidelines (standardized) for eradication/containment including plants

#### **Project Group Members:**

Moderator: Danae Vaccianna

Notetaker: Kelly Bradley

Members: Jacqueline Andre, Kelly Bradley, Argel Horton, Fleur Hermanides, Karim Hodge, Scott Johnson, Vanessa Haley-Benjamin, Danaë Vaccianna

#### WHAT:

- 1. What is the specific project? Does it need to be broken down further into smaller parts?
- 2. What Challenges/Barriers is the group facing in undertaking the project(s)?

Regional public awareness campaign on impact of invasive species (multi-media)

**HOW, WHO, & WHEN:** How will the project be accomplished? What action steps need to be --undertaken to achieve project goals? Who is responsible for each step/task? What is the timeline for accomplishing each task?

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Investigate MTIASIC – mitigating the threats of invasive alien species in the insular Caribbean Project	Vanessa	
Collate/Compile existing guidelines of invasive species eradication/containment	Kelly and Kirsty	
Identify message/theme for "most wanted" campaign – visual, audio, print	Danaë and Scott	
Disseminate information to respective persons (government and conservation managers and community)		

# Identifying Tasks and Establishing Timelines Worksheet

Project Group: 3,4,5,6,7 - "Promoting Iguanas"

#### **Project Group Members:**

Moderator: Karim Hodge Notetaker: Jan P. Zegarra Members: Jan P. Zegarra, Jill Jollay, Hannah Madden, Philip Deveaux, Karim Hodge, Danaë Vaccianna, Chloe Rodriguez, Argel Horton, B Naqui Manco, Scott Johnson

#### WHAT:

- 3. What is the specific project? Does it need to be broken down further into smaller parts?
- 4. What Challenges/Barriers is the group facing in undertaking the project(s)?
- 1. Art contest regional drawing contest at different levels
- 2. Book conservation purpose book to distribute
- 3. Social media/outreach

\*Challenges – language and cultural differences and needs; compromise of the people

**HOW, WHO, & WHEN:** How will the project be accomplished? What action steps need to be --undertaken to achieve project goals? Who is responsible for each step/task? What is the timeline for accomplishing each task?

#### ART CONTEST

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Need a coordinator per region and possibly one for the contest – write email with list – initial email to recruit collaborators and brainstorm	JP and Karim	ASAP
Develop outreach material/formal letter to share with all regions and participants – contest 3 months (deadline April)	JP and Karim, ALL	January/February
We need to think about prizes	ALL	

#### BOOK

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Identify and contact possible writers/contributors	Scott and Jill	January/February
Develop purpose statement/message	Danaë	January/February
Figure out options for distribution/funding/printing/promotion	ALL	1 year project

#### SOCIAL MEDIA

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Develop Facebook, Twitter, Instagram Caribbean Iguanas pages – ask for materials	Bryan Naqqi	ASAP
Develop one consistent conservation message to disseminate through radio stations	Karim and Scott	February
Contact PANOS	Danaë	ASAP
Contact PARC – promote year of the Iguana	JP	ASAP
Research available short video media available to re-promote or update; 30 seconds – 1 minute video should be target	ALL	ASAP

#### COMMUNICATION AND ACCOUNTABILITY

- 1. How communication will take place between members? How will updates be shared?
- 1. Email and listserve.

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# Identifying Tasks and Establishing Timelines Worksheet

**Project Group:** 18 – "Create/improve regional research/information database – species by species / island by island gap analysis to inform academic research, governments and island's managers"

#### **Project Group Members:**

Sixto Inchaustegui Jose Luis Herrera Amanda Neill Tarren Wagener Kimberly Stephenson Vanessa Haley-Benjamin

#### WHAT:

- 2. What is the specific project? Does it need to be broken down further into smaller parts?
- 3. What Challenges/Barriers is the group facing in undertaking the project(s)?

Create/improve regional research/information database – species by species / island by island gap analysis to inform academic research, governments and island's managers

**HOW, WHO, & WHEN:** How will the project be accomplished? What action steps need to be --undertaken to achieve project goals? Who is responsible for each step/task? What is the timeline for accomplishing each task?

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Approach ISG to determine access to literature in their website to non-ISG members involved in the database creation.	Tarren	By January 2014
Identify current database tools and additional existing tools particularly in Island's countries.	Amanda and Jose Luis	By January 2014
<ol> <li>Develop and distribute a data use survey by species to identify research priorities by species / develop use cases for this resource.</li> <li>Get survey results</li> </ol>	Tarren, Amanda, Jose Luis, Sixto, Kimberly, Vanessa	By July 2014 By October 2014
To form and advisory group that represent/investigate/inform the countries research needs and ensure the maintenance of the data in a long term.	Tarren, Vanessa (seek advice from Tandora Grant)	By February 2014
Identify funding sources to pay database's developers and to maintain the database in a long term (e.g. USFWS through CLCC, San Diego Zoo, Island Conservation, GEF, Private donors, Richard Branson)	Advisory group, Tarren, Amanda, Jose Luis, Sixto, Kimberly, Vanessa.	By July 2015

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Create database ! / review/modify/maintain/identify needs and improvements/maintain	Tandora Grant and Mathias Tobler	By July 2015
Promote the database in different forums and train people in how to use it and to obtain the information needed (e.g. CLCC meetings) and get feedback to improvements.	Will be based in the Advisory group decisions.	From August-December 2015.

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# Identifying Tasks and Establishing Timelines Worksheet

Project Group: 26, 36 - "Integrated Caribbean Iguana Bio Security Strategies"

#### **Project Group Members:**

Kirsty Swinnerton (Moderator) Jessica Harvey (Note Taker) Lyndon John Alberto Alvarez Cielo Figuerola Maurice Isaacs Fleur Hermanides

#### WHAT:

- 3. What is the specific project? Does it need to be broken down further into smaller parts?
- 4. What Challenges/Barriers is the group facing in undertaking the project(s)?

Title: Integrated Caribbean Iguana Bio Security Strategies

Aim: Identify best practices for biosecurity/animal control and prevention that are adequate to address external movement (international) and internal movement (inter-island and within island) of invasive species in tropic countries, using iguanas as a flagship species.

**HOW, WHO, & WHEN:** How will the project be accomplished? What action steps need to be --undertaken to achieve project goals? Who is responsible for each step/task? What is the timeline for accomplishing each task?

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
1a. Identify iguana countries with existing national biosecurity strategies.	Reg 1 (Cuba/DR/Haiti) – Jorge Reg 2 (Cay/Jam) – Jess Reg 3 (Bah/TCI) – Maurice Re 4 (US VI/BVI/PR) – Cielo/Alberto Reg 5 (DOTs) – Fleur Reg 6 (FOTs) – Chloe Reg 7 (UKOTs) – Lyndon Reg 8 (Other) – Kirsty	2 months – starting from Jan 2014
1b. Create a list of what is needed for the criteria of a biodiversity strategy to protect iguanas, prioritizing vertebrates and highly significant threats (ie. Casuarina)	Cielo/Alberto	2 months – starting from Jan 2014
1c. Review existing national biosecurity strategies and identify their efficacy to minimize invasive vertebrates impact on animals movement into the country and within the country	KY/Jam – Jess DOT – Fleur PR/BVI/USVI – Cielo/Alberto DR – Jorge BAH/TCI – Maurice FOT – Chloe Other - Kirsty	June 2014
2a. Identify which countries describe best practice measures for invasive animal control in local legislation	Same as Action 1	June 2014
3. Identify euthanasia standards for in field control	Jess	2 months from Jan 2014
4. Create a database that consolidates best practice information and is made available to the group	Kirsty/Cielo	2 months from Jan 2014

### Identifying Tasks and Establishing Timelines Worksheet

Project Group: 27- "Eradication"

#### **Project Group Members:**

Moderator: Kirsty Swinnerton

Notetaker: F. Burton

Members: Kirsty Swinnerton, Bonnie Raphael, Philip Deveaux, Kimberly Stephenson, Dario R. Flores, Ernst Rupp, Damaris Ramirez, Matt Morton

#### WHAT:

- 5. What is the specific project? Does it need to be broken down further into smaller parts?
- 6. What Challenges/Barriers is the group facing in undertaking the project(s)?
- 1. Testing toxicant effects on iguanas (*Cyclura*) by candidate cat and rat baits (Isla Maguayez)
- 2. Pilot project to test "PAPP" on iguanas and other non-targets
- 3. Pilot fence in St. Lucia to exclude mammalian predators, iguana-iguana, livestock
- 4. Pilot fence in Grand Cayman vs. dogs, cats, green iguanas (rats and mice?)
- 5. Pilot eradication on small island as a training exercise a few hectares, Bahama or TCI

**HOW, WHO, & WHEN:** How will the project be accomplished? What action steps need to be --undertaken to achieve project goals? Who is responsible for each step/task? What is the timeline for accomplishing each task?

#### **Testing Toxins**

HOW - Action Steps WHO - Who is responsible WHEN		WHEN – Timeline
Permission from DNR, and permits	IC	Now – April 2014
Identify field team	IC ODNER	March-April 2015
purchase equipment and supplies		March-April 2015
design methodology	IC w/ relevant experts in group	June 2014
Implement	Field team	June 2015
Assess	IC	July 2015
Fundraising	IC	End 2014

### Fencing

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Feasibility study St. Lucia	DNCT and FFI	March 2014 completion
Adapt feasibility study and fence design	DNCT and BIRP	March 2014
Fund raising		Starting mid-2014
Implementation – extends beyond this planning horizon		

#### **Pilot Training Eradication**

HOW - Action Steps	HOW - Action Steps WHO - Who is responsible WHEN -	
Select island and secure local authorities' agreements and permits	IC, Chloe Bahamas TCI Jorge/PR	2 months, February 2014
Identify trainers/training collaborators, design training methodology and tools, identify	Matthew, DWCT, PII, IC (local	3 months, March 2014-March
trainees, route funds to support trainees	host)	2015
Secure permits and agreements for pilot island eradication, purchase equipment and	IC	
supplies, design eradication strategy and methods		
Implementation (training – eradication)	IC/DWCT	
Reporting/wrap up		

# Identifying Tasks and Establishing Timelines Worksheet

**Project Group:** 29 - "Regional Public Awareness project to raise understanding of impacts of invasive species – guidelines (standardized) for eradication/containment including plants"

#### **Project Group Members:**

- 1. Moderator: Danaë Vaccianna
- 2. Notetaker: Kelly Bradley
- **3.** Jacqueline André
- 1. Argel Horton
- 2. Fleur Hermanides
- 3. Karim Hodge
- 4. Scott Johnson
- 5. Vanessa Haley-Benjamin

#### WHAT:

- 6. What is the specific project? Does it need to be broken down further into smaller parts?
- 7. What Challenges/Barriers is the group facing in undertaking the project(s)?

Creating a public awareness campaign towards raising understanding of invasive species impacts

Shorter Term - Start out with free opportunities Long term – Full blitz with funding

**HOW, WHO, & WHEN:** How will the project be accomplished? What action steps need to be --undertaken to achieve project goals? Who is responsible for each step/task? What is the timeline for accomplishing each task?

Start out with free opportunities - Shorter Term

1. Most wanted Campaign



Target Audience: Local residents in environs of iguana populations, general public, Government, etc.

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Investigate the details and outcomes of Mitigating the Threat of Invasive Alien Species in the Insular Caribbean (MTIASIC)	Vanessa	End of December
Identify /collate/update invasives list	Karim	Feb/Mar
Local Surveys of IS attitudes and knowledge to be collected to help inform the message	Fleur - All	
Identify mediums (including cost) of communications1.Social Media2.Printed Media3.Radio and Television	Jacqueline All countries	- January
Create the message	Scott (Danaë)	February
Confirmation of message	All	April
Design method of dissemination of message	Argel	Мау

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Dissemination	Media	June

#### 9. Guidelines –

Target Audience: Government, policy makers etc.

HOW -	Action Steps	WHO - Who is responsible	WHEN – Timeline
10.	Acquire project results from discussion 1 table 3	Kelly	Once They have completed the deadlines
11.	Design method of dissemination of message	Argel	May?
12. 1. 2. 3.	Disseminate the information – Multi-media program Booklets Training	Media	June?

1.	Disseminate the project result from discussion 1 table 3	- Media	-	June
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- 1. Multi-Media campaign
  - 1. Radio
  - 2. TV
  - 3. Print

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## Identifying Tasks and Establishing Timelines Worksheet

Project Group: 39, 44, 81 – "Identification of Critical Habitat and Promotion of Best Management Practices for Caribbean Iguanas"

#### **Project Group Members:**

Moderator: Sixto J. Inchaustegui Notetaker: Brent Murry, Masani Accime Members: Arcene Bastien, Maurice Isaacs, Lyndon John, Bren Murry, Sixto Inchaustegui, Masani Accime

#### WHAT:

- 13. What is the specific project? Does it need to be broken down further into smaller parts?
- 14. What Challenges/Barriers is the group facing in undertaking the project(s)?

Identification of critical habitat and promotion of best management practices for Caribbean iguanas.
**HOW, WHO, & WHEN:** How will the project be accomplished? What action steps need to be --undertaken to achieve project goals? Who is responsible for each step/task? What is the timeline for accomplishing each task?

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Consult with Iguana Specialist Group (Tandora Grant), individual researchers, and local experts on existing information on critical iguana habitats by population and by island and producing a report.	Sixto	March 31, 2014
Identify iguana sanctuaries, protected or not	Brent	July 31, 2014
Create a gap analysis of critical iguana habitats, sanctuaries, and other potentially important areas	Brent and Sixto	December 2014
Use results of gap analysis to create a report:		
- Preliminary report sent to Group 4 of Discussion 2 for review	Sixto and Brent	March 31, 2015
- Preliminary report sent to Caribbean Iguana Workshop participants, ISG	Sixto and Brent	March 31, 2015
- Submit final report to national and regional governments and NGO's	Sixto and Brent	May 30, 2015
- to NGO's SPAW and CITES	Dr. Isaacs	May 30, 2015
Raise awareness among workshop participants, and regional/national NGOs regarding environmental policies and regulations by accomplishing the following activities:		
<ul> <li>Review important international policies and regulations that can apply to iguana conservation and create a list</li> </ul>	Sixto and Masani	February 28, 2014
- Create a short report from list of regulations and how they can be applied within the region in English	Sixto and Masani	March 31, 2014
- Translate to French and Spanish (need funds?)	Sixto and Masani	July 31, 2014

## COMMUNICATION AND ACCOUNTABILITY

Sixto, Masani, and Brent take responsibility for this project. Lyndon will be responsibility for communicating reminders.

# Identifying Tasks and Establishing Timelines Worksheet

Project Group: 41 - "Caribbean/regional Steering Body"

## **Project Group Members:**

Moderator: Mike Fouraker

Notetaker: Brent Murry

Members: Andrea Donaldson, Boris Fabres, Vaman Ramlall, Michael Fouraker, Brent Murry, Bruce Weissgold, Allison Alberts, Lee Pagni

## WHAT:

- 15. What is the specific project? Does it need to be broken down further into smaller parts?
- 16. What Challenges/Barriers is the group facing in undertaking the project(s)?
- 17. Specific develop Caribbean Iguana Steering Committee (CISC) representing the following regions/institutions (1 representative from each):
- 1. Cayman/Jamaica
- 2. PR, DR, Cuba
- 3. BVI Antigua
- 4. Dominica St. Lucia
- 5. French Caribbean
- 6. Dutch Caribbean
- 7. IIF
- 8. ISG
- 9. USFWS International
- 10. USFWS Endangered species

CLCC- Member at large voice

\*Challenges – needs to be ACTIVE members ready to DO THINGS

**HOW, WHO, & WHEN:** How will the project be accomplished? What action steps need to be --undertaken to achieve project goals? Who is responsible for each step/task? What is the timeline for accomplishing each task?

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Identify and invite interim (1 year) steering committee members	Mike Foraker	Nominations by January 15 January 31 SC identified Commitment by February 15
Apply to CLCC as Conservation Action Team	Brent, Mike, steering committee chair	Feb 20
Interim steering committee 1 <sup>st</sup> meeting WebEx – discuss face-to-face, funding, group goals	Mike Foraker, Brent Murry, and interim steering committee chair	April 15
<ol> <li>Expectations for interim steering committee</li> <li>Facilitate information exchange within the iguana conservation community</li> <li>Keep track of on-going projects, try to avoid duplication</li> <li>Track/facilitate other task groups</li> <li>Lead/facilitate/organize future meetings</li> <li>Promote and push iguana conservation and best management practices</li> </ol>		Done

### COMMUNICATION AND ACCOUNTABILITY

6. How communication will take place between members? How will updates be shared?

Mike F. will communicate with group to share this table's vision.

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# Identifying Tasks and Establishing Timelines Worksheet

Project Group: 64, 65 - "Gap Analysis of Legislation, Regulations, Enforcement, and Prosecution; Creation of WEN"

### **Project Group Members:**

Moderator: Kathleen Wood Notetaker: Bruce Weissgold Members: Bruce Weissgold, Kathleen Wood, Andrea Donaldson, Michael Fouraker, Stesha Pasachnik, Jorge Brocca, Jill Jollay, David Knowles

### WHAT:

- 7. What is the specific project? Does it need to be broken down further into smaller parts?
- 8. What Challenges/Barriers is the group facing in undertaking the project(s)?

Gap analysis of legislation/regulations, enforcement, and prosecution and judicial functions.

Creation of a WEN (Wildlife Enforcement Network)

Challenges: funding, political/bureaucratic hurdles

**HOW, WHO, & WHEN:** How will the project be accomplished? What action steps need to be --undertaken to achieve project goals? Who is responsible for each step/task? What is the timeline for accomplishing each task?

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Establish list of points of contact in each island in areas of legislation/regulation, enforcement, and prosecution/judiciary	Bruce W.	Mid-January
<ul> <li>Design outline of a gap analysis</li> <li>1. Use C. America as a template</li> <li>2. Add synthesis chapter</li> <li>3. ID who has capacity to host WEN</li> </ul>	Bruce W. will approach potential cooperators	End of February
Find funding to hire a consultant to conduct the gap analysis - \$75??? -large number of countries -some electronic consultation -pro bono help on islands?	Continue with same cooperators	1-12 months
Conduct analysis	Continue with same cooperators	12-18 months once funding provided
Distribute appropriately through steering committee	Steering committee	1 month
Identify key country to advance the concept of a WEN – ideally and independent country	Chari, steering committee	6 months
Identifying key additional cooperators -CITES -WCO (World Customs Organization) -ICCWC (International Consortium to Combat Wildlife Crime) -others?	Host country, with outside support as it determines appropriate	1-12 months
Let the WEN build itself	WEN	In perpetuity

#### COMMUNICATION AND ACCOUNTABILITY

4. How communication will take place between members? How will updates be shared?

Email and telephone.

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# Identifying Tasks and Establishing Timelines Worksheet

**Project Group:** 77 - "Guidelines for Iguana Friendly Agricultural Development, Private Land Development Options, Development, and Best Management Practices"

### **Project Group Members:**

Moderator: Fred Burton

Notetaker: Kelly Bradley

Members: Kelly Bradley, Fred Burton, Gad Perry, Glenn Gerber, David Knowles, Kathleen Wood, Matt Morton

### WHAT:

- 5. What is the specific project? Does it need to be broken down further into smaller parts?
- 6. What Challenges/Barriers is the group facing in undertaking the project(s)?
- 7. Informational package for owners, developers, regulators concerning best land management practices (iguana and cyclura) for format look at PARKS habitat management GUID
- 8. Layman summary of iguanas'' value to the environment and socioeconomic (1 page) all native iguanas to the Caribbean
- 9. Guidelines for EIA, TOR Checklist for government investment agencies
- 10. Style should be concise, non-scientific language, illustrated
- 11. Audience 1. Future developers, 2. Regulators, 3. Cabinet ministers, 4. Existing land managers, 5. Construction managers, 6. Agriculture ministers
- 12. 3 phase management plan 1. Preconstruction, 2. Construction, 3. Management/operational
- 13. Multi-author document
- 14. PDF version free, but a printed document will be sold
- 15. Have a budget that includes someone to provide professional layout/design
- 16. Guidelines for invasive species management
- 17. With tabbed sections for easy use
- 18. Limited print run with printable PDFs

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
1. Appoint editor	Gad Perry, Kathleen Wood	Now
1b. Budget and source funding \$15,000 to \$20,000 budget	1b – Editors	
2. Editor and group negotiate table of contents	Editors and contributors interim steering committee	March 1, 2014
3. Develop a list of persons (writers/contributors) to be involved – invitational process	Editors	April 2014
4. Write content	Contributors	April-August 2014
5. Review and editing	Editors	August 2014-December 2014
6. Identify and source graphics	Editors	April 2014
7. Layout, design	IRCF	February 2015
8. Final review	Editors, contributors, the ISG, working group	June 2015
9. Production	IRCF	August 2015
10. Distribution	IRCF, editors	August 2015

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# Identifying Tasks and Establishing Timelines Worksheet

Project Group: 108, 120 "Grant writing cycle workshop"

### **Project Group Members:**

Moderator: Amanda Neill Notetaker: Veronica Anadon Members: Veronica Anadon, Amanda Neill, Cristian Marte, B Naqqi Manco, Boris Fabres

### WHAT:

- 19. What is the specific project? Does it need to be broken down further into smaller parts?
- 20. What Challenges/Barriers is the group facing in undertaking the project(s)?

#### The grant writing cycle #108:

Workshop for training for developing grant writing skills, budgeting, reporting, and developing, and maintaining donor relationships

Barriers: funding, language, finding an expert, needs to follow up, political issues for the hosting countries (Visa)

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Develop an executive summary proposal – est. of people	B naqqi, Boris	March 2015
Determine which NGO/GO (or combination thereof) will organize the workshop – CANARI, RSPB, IIF, CLCC, SCSCB, UKOTCF, Birdlife, Richard Branson, MacArthur Foundation	Amanda – Veronica	April 2015
Determine if hosting agency/agencies needs supplemental funding to host the workshop	Amanda – Veronica	May 2015
Seek funding to support workshop costs (if needed)	Whole group	2015, June
Coordinate the workshop – plan a time for attendees to promote (success stories), lightening round "innovative funding ideas", new alternative funding ideas (#120)	Amanda and Cristian, whole group	2016, June
Host workshop	TBD	December 2016
Document and disseminate workshop materials/supplemental materials to all attendees, remote participants, and any other who want them	TBD	2017 January
Evaluate the workshop in order to follow up on specific skills	TBD	December 2016 or January 2017

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# Identifying Tasks and Establishing Timelines Worksheet

Project Group: 112 - "Identification of common problems between countries in region for collaborative project applications"

#### **Project Group Members:**

Moderator: Masani Accime

Notetaker: Matt Goetz

Members: Veronica Anadon, Jacqueline Andre, Arcene Bastien, Masani Accime, Matt Goetz, Ann Sutton, Ernst Rupp, Damaris Ramírez, Miguel A. Garcia

HOW - Actio	on Steps	WHO - Who is responsible	WHEN – Timeline
a. Setting up email listserv for workshop partic CLCC	ipants (check Brent Murry's initiative)	Matt G.	January 2014
b. day forest/habitat partnership ("sister forest	t" idea)	Miguel G.	February 2014
c. Collate information material to promote "sis	ter forest" partnership	Veronica A., Miguel G.	March 2014
d. Advocacy: use group/listserv to deal with en	nerging issues and emergencies	Ann S., Ernst R.	Continuous
<ul> <li>e. capacity building, training, and sharing techr</li> <li>1. Identifying training needs and opportu</li> <li>disseminate to listserv</li> </ul>	nical skills nities: questionnaire development and	Veronica A., Jacqueline A.	April 2014
2. Compile results, submit possible course	e developers (Durrell, IC, etc.)	Veronica A., Jacqueline A.	June 2014
3. Identify NGOs who can be recipient an	d managers of iguana funds	Masani A., Mike F.	May 2014

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# Identifying Tasks and Establishing Timelines Worksheet

Project Group: 145 - "Sampling, Distribution of Samples, Review IUCN Reintroduction Guidelines"

#### **Project Group Members:**

Moderator: Stesha Pasachnik Notetaker: Paul Calle Cristian Marte Darío Rafael Flores Chavez Bonnie Raphael

### WHAT:

- 4. What is the specific project? Does it need to be broken down further into smaller parts?
- 5. What Challenges/Barriers is the group facing in undertaking the project(s)?

Sampling, distribution of sample information, review IUCN Reintroduction Guidelines

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Samples (skeletons/carcasses will be included throughout and not as a specific category)	a. Stesha	Mid -Feb
Develop guidelines for each sample type	b. Paul/Bonnie	
Include procedures, protocols, products, storage	c. Stesha/UCSD	
Genetics: blood and tissue in genetics buffer; filter paper (product specific for genetic samples).	d. Bonnie	
Health Screening: serum/plasma, filter paper for toxins, feces in preservative solution,		
necropsy. For those samples that are not in a central repository, develop database of		
who has what.		
Stable isotopes		
Nutrition		
Banking (genetics & other samples)	a. Stesha	Mid-Feb
a. Permitting	b. Stesha will need input from all	
b. In country banking repository	at this meeting! Email her with	
c. Out of country banking repository. Centralized genetics sample banking at San	contact info	
Diego Zoo and Mississippi State University. How are these samples curated?	c. Stesha, Glen Gerber, Mark	
What is the coordination between the two?	Welch	
Review of IUCN Reintroduction Guidelines	All on this group	Mid-Feb
This will be reviewed to make specific genetic or health sampling relevance in reference		
to iguana programs		
1. Genetics/small population management		
2. Health		
Sample and banking information distribution	Stesha and Tandora	Mid-Mar
1. IUCN ISG listserve		
2. Friends of ISG email list		
3. This meeting's email list		
4. ISG website post		
5. Individual countries		

# Identifying Tasks and Establishing Timelines Worksheet

Project Group: 146 "Understanding Effects of Small Populations"

### **Project Group Members:**

Moderator: Gad Perry Notetaker: Tarren Wagener

Members: Glenn Gerber, Jose Cruz-Burgos, Paul Calle, Vaman Ramlall, Cielo Figuerola, Tarren Wagener, Jessica Harvey, Alberto Alvarez, Miguel Garcia, Matt Goetz

## WHAT:

- 6. What is the specific project? Does it need to be broken down further into smaller parts?
- 7. What Challenges/Barriers is the group facing in undertaking the project(s)?

Understanding the effects of small populations on genetic diversity

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Action Step I: Identify current work being done on small populations of 3 types that will		
inform this question:		
1. What is the effect of natural limitations on population size re: genetic diversity?	Jessica M.,	2014
-Lesser Antilles	Glenn G., Mark W, Gulianao	2014
-TCI	John I., Andrea A.	2014
-Bahamas		
2. What are the effects of human-caused bottlenecks on genetic diversity?		
- BVI	Glenn G.	2014
-TCI	Glenn G. (3 projects)	
	-translocation effects of	2014
	inbreeding	2015
	-source pop. Vs. transported pop	
-Jamaica	-Welch	TBD
	Armed (student of Welch)	
-Little Cayman	Matt Goetz	March/April 2014
-Cayman Brac	Matt Welch	TBD
3. What are the genetic effects of head starting?		
Jamaica	Mark Welch	2015
Mona	Welch	TBD
Grand Cayman	Fred, Welch	TBD
Anegada	Welch, Glenn G.	TBD
Action Step II. Additional review of relevant genetic work ongoing (ISG genetics working	Stesha P. to follow up with	December 2013
group)	Catharine Malone	
Action Step III. Conduct a preliminary review of current data relating small population	Welch and Gerber	February 2014
genetics with fitness for iguanas		

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# Identifying Tasks and Establishing Timelines Worksheet

Project Group: 154 "Improving communication of research results between scientists and governments/managers"

Project Group Members: Moderator: Hannah Madden Notetaker: Lee Pagni Members: Hannah Madden, Ann Sutton, Jose Luis Herrera, Jan-Paul Zegarra

HOW - Action Steps	WHO - Who is responsible	WHEN – Timeline
Partner with Birds Caribbean to explore the possibility of holding a joint meeting with iguana workshop delegates. Add delegates to the Birds Caribbean mailing list.	Ann Sutton (steering committee of Birds Caribbean)	March 2014
Help create a standardized research reporting form. Disseminate widely to this group and ISG.	Lee Pagni, Jose Lewis Herrera	Version 1 – April 1 <sup>st</sup>
Research and create a code of practice for researchers. Ask ISG to formalize	Lee Pagni	Steering committee by June 1 <sup>st</sup>
All applicable countries to send a reporting form from their countries as an example of standard reporting form.	Jose Luis Herrera	January 31 <sup>st</sup>
Recommend to the ISG to add to their membership a public relations professional	Jan Paul Zegarra (+ table group)	February/March