

**BELIZE WILDLIFE NETWORKING CONFERENCE 2009
CHAPTER 2**

Conference Purpose: To facilitate education, communication, and collaboration within the wildlife conservation community in Belize.

The Lecture Hall, Galen University Campus, Mile 62 ½ Western Highway, Central Farm, Cayo District

Second Meeting Minutes: Conference Workshops

Friday August 14, 2009

Present: (See Conference Attendance List)

Agenda:

- 🐾 9:15 – 9:45: 1st Presentation “Current Legislation” (Forest Department)
- 🐾 9:45 – 10:00: 2nd Presentation “Jaguar Corridor and Connectivity in Belize and to the Outside” (Bart Harmsen, Panthera)
- 🐾 *Intermission snacks and drinks*
- 🐾 10:15 – 10:30: 3rd Presentation “Hawk Eagles of Belize” (Ryan Philips, Belize Raptor Research Institute)
- 🐾 10:30 – 10:45: 4th Presentation “Current Status of the Orange Breasted Falcon in Belize” (Yeray Seminario and Marta Curti, The Peregrine Fund).
- 🐾 10:45 – 11:00 “Study of Ateles Geoffroyi Yucatanensis at Runaway Creek Preserve” (Brittany Dean & Stevan Renau, BWB-RCNR)
- 🐾 11:00 – 11:15 5th Presentation “Importance of Riparian Forest as Wildlife Corridors” (Dr. Ed Boles, Nature Works)
- 🐾 11:15 – 12:00 “Human Dimensions of Wildlife Conservation” (Ed Clark, Wildlife Center of Virginia)
- 🐾 1:00-3:00 Introduction of wildlife conservation organizations and projects in Belize (short presentations by representatives, see alphabetical list of participating organizations)
- 🐾 3:00 – 3:15 *Intermission snacks and drinks*
- 🐾 3:15-4:15 Introduction of wildlife conservation organizations and projects in Belize (short presentations by representatives, see list)
- 🐾 4:15 – 5:00 1st group discussion: Issues for wildlife conservation in Belize
- 🐾 5:00-5:15 Closing (Forest Department)

- 🐾 *Dinner/social event @ San Ignacio Hotel/ display of informational materials of participating organizations*

Meeting Commencement:

- 🐾 Meeting was called to order at 9:14 am by Dr. Colin Young
- 🐾 9:15 am Cayo Music School played the Belize National Anthem
- 🐾 Dr. Young welcomed all attendees and introduce himself as MC for the day

Dr. Young reviewed the Agenda with the audience. He encouraged people to stay within their time limits when they are giving their presentations. Dr Young says that “Everybody must respect the time limits of 15 minutes per presentation.” He also says that “after lunch, some of the presentations will be allowed to be longer.” Dr. Young mentions that dinner will be at the San Ignacio Hotel. “Fifteen dollars will be the cost”. “The numbers of who all will attend must be confirmed with the hotel by 10am.” “Tomorrow we will begin the conference an hour earlier (8am)”.

Dr. Young explains that the Wildlife Conference was principally organized by Dr. Isabelle Paquet-Durand and Ms. Carole Manganaro. He discusses about why such a conference is important. Dr. Young says that there are lots of people doing work in Belize but nobody knows what they are doing. He says that some organizations might be studying the same species but people don’t actually know that they are doing the work. Dr. Young says, “**The main purpose of this conference is to foster collaboration and networking.** We hope to update wildlife stakeholders and to build consensus and support that needs to occur. We need to identify mechanisms to assist The Forest Department in carrying out their mandate. They have a huge responsibility that must be shared with other organizations. We also want to recognize the different expertise that different organizations bring. We need to know what they are doing and form some kind of network. Part of the workshop is to share practical work in order to come up with relevant solutions to help conservation in the country. We hope that those objectives will be met. We do not want this to be another lip service. Something needs to be useful to come out of this. Our expected outcome is to have increased communication, network and collaboration. For too long a country as small as Belize, and there is so much happening, but so little we know about it. We want to have a group or network where people can actually contribute to the information in Belize. There is also going to be an online directory, as well as a formal network to facilitate continued communication between

organizations. We need to enhance the efficiency of wildlife conservation. Before I finish this brief welcome, I would like to acknowledge the organizations that made this conference possible.”

Dr. Young says that “We give thanks to The Belize Forest Department, FCD, Ed Clark – WCV, Michael Martin – ProBelize, Ms. Roberson – San Ignacio Hotel, Birds without Borders – Dr. Gill Boese, PACT – for providing a lot of funding for the conference. Let’s give all of them a round of applause.”

Dr Young says “I want to point out one thing as a Belizean. My experience with these kinds of conferences is that we see mostly nationalized Belizeans, but I actually recognize some of the faces here. We should increase capacity and training for Belizean scientist to get into conservation. So I would like to remind you that we have a schedule to follow. I would like to officially welcome you to Galen University and to this Conference. So we need to move into our first presentation from The Forest Department.”

Presentations:

First Agenda Item(9:32 am to 10:02 am): 1st Presentation “Current Legislation” (Belize Forest Department)

- 🐾 Ms. Rasheda Sampson presents BFD (wildlife officer at BFD).
- 🐾 Discuss BFD mission, the program, etc.
- 🐾 Mission Statement: *A public oriented entity fosters Belize’s economic and human development by effectively enforcing relevant policies and regulations for the sustainable management of its natural resources through strategic alliances and efficient coordination with relevant stakeholders towards this goal.*
- 🐾 To oversee the sustainable management of Belize’s forest resources
- 🐾 We have different programs; protected areas program: sustainable land management, wildlife programs, etc
- 🐾 The Wildlife Program for BFD consists only of two people—Rasheda Sampson and Andre Lopez
- 🐾 Rasheda Sampson – Officer/Manages Program
- 🐾 Andre Lopez (Mr.) Wildlife Conservation Officer
- 🐾 The Wildlife Program regularly calls on wildlife organizations to assist is responding to reports of human/animal conflicts.

Wild Life Program 2009 Goals

- 🐾 Each year BFD has to do a work plan

- 🐾 Making amendments to the wildlife protection act
- 🐾 Strengthening coordination among BFD offices country wide
- 🐾 Establishing efficient structure for the issuing of licenses
- 🐾 Building capacity for members through relevant training
- 🐾 Increasing monitoring efforts
- 🐾 Conducting various public awareness efforts.

Belize Forest Department has four office locations: Orange Walk, Belmopan, Independence, Toledo District. BFD needs to coordinate with them to ensure that we are on the same page. BFD needs to all use the same standards. BFD representative says that each district office issue and distribute different licenses. BFD Rep says that they have developed application forms for each license they offer so they have made some amendments

BFD Rep Ms. Rasheda says “Because Andre and I are the only people between these programs; we are expected to know exactly what to do in all situations. So it’s very important for us to get training in all areas so that we are able to do what we need to do”.

Increase monitoring has been a big problem in the BFD due to limited resources. BFD Rep says that they are striving towards this. BFD needs to keep an eye out for those who are hunting, people who sell and buy wildlife, etc.

BFD Rep says that they all know the importance of public awareness. It is critical to educate the public. We’ve been on several radio stations. BFD Rep says that they spoke about what they do. “We send out press releases and send out flyers. We went to several districts throughout the country and spoke to people who are hunting.”

Types of Licenses Issued By BFD

- 🐾 Annual hunting
- 🐾 Local hunting
- 🐾 Visitor hunting

Current Legislation

- 🐾 Operate under the wildlife protection act

WILDLIFE PROTECTION ACT Addresses the Following:

- 🐾 Restrictions

- 🐾 Prohibited activities
- 🐾 Defense of person and property
- 🐾 Report and payments
- 🐾 Dealer's license
- 🐾 Moratorium on commercial dealing
- 🐾 Export, import permit required
- 🐾 Appointment of officers
- 🐾 Regulations
- 🐾 Regulations subject to negative resolution
- 🐾 Issue of licenses, fees
- 🐾 Scientific permits
- 🐾 Issue of import and export permits
- 🐾 Offences and penalties

Amendments to: The Wildlife Protection Act

- 🐾 Strengthen the provisions relating to the conservation and management of wildlife
- 🐾 Increase penalties for wildlife offences
- 🐾 Make provisions for wildlife matters not previously addressed

Having wildlife as pets and has not been added in the WPA. Defined hunting in regards to the WPA. BFD discusses how the penalties are ridiculously low and wants to increase penalties for wildlife offences and make provisions for wildlife matters. The act defines hunting as to kill or molest wild life. People tend to hunt a lot of Jaguars, parrots, monkeys, etc.

There are other things that are not included in the WPA. We need to define wild-life. WPA includes all domesticated animals, birds, etc. but it does not include amphibians and insects.

Amendments to The WPA

- 🐾 We have added terms not previously included
- 🐾 Changing definitions to some terms used
- 🐾 Adding regulations

- 🐾 Making changes to some regulations included
- 🐾 Increasing penalties for wildlife offences

Recently, a couple weeks ago, we got a call from someone in Belize City. Two ten year olds caught a crocodile with hooks and lines. These should not be used! The croc died. ‘Hook and line trapping’ is not included in the act.

Other Legislation

- 🐾 Wildlife order
- 🐾 Provide regulations for holding wildlife in captivity
- 🐾 Provide a fee structure for holding wildlife
- 🐾 Provide penalties for not following regulations

It has become a part of Belizean culture for people to own wildlife. BFD hopes to regulate the number of people who have wildlife as pets and to make an accountability structure for it as well. This has been happening for years. BFD is trying to manage the whole situation. This wildlife order is what the BFD is hoping will help solve the problem.

BFD has completed a first draft of amendments to the WPA. If there is a way to get a list of everyone present, we are very much open to your input.

Dr. Young; Questions anyone?

Question: How is the budget for the BFD and do they have vehicles?

BFD Answer: “No. We’ve had quite a bit of trouble responding to people due to this. We have borrowed some money. We cannot do anything unless the vehicle is up and running. I am hoping to seek funding somewhere else to help with our current situation. There is not enough funding.”

Question: We have two people in the country, which is difficult. Other countries have volunteers. They buy radio and do patrols. Kenya has radios and there is a network of eyes and ears and give limited resources for action instead of reaction. Has this ever been done here?

BFD Answer: Our eyes and ears are really the wildlife organizations we work with. They help us with doing what we need to do. We needed to find out who all work with us.

Question: In reference to the amendments of WPA , even the Belize Zoo has a sort of legality in having animals, so they are not there only for their sake. In terms of legalizing persons on behalf of us, that will take a lot of time.

Question: Do you have a time frame of the final acceptance of the amendment?

BFD Answer: We need to go through several drafts before we make the final. Then we take it to the minister.

Question: You are hoping to have all the drafts by the end of the year?

BFD Answer: We are hoping that since the amendments are needed, we can take it to the stakeholders and then take it to the ministers.

Statement: Dr. Young: Yeah, we are waiting for these amendments to be passed. We have a microphone so if you speak softly you can speak into the microphone system that we have. The next speaker is going to be Bart Harmsen who will speak about the “Jaguar Corridor Connectivity”.

Second Agenda Item (10:05 am to 10:34 am): Conservation Status of Jaguars in Belize (*Panthera*)

“I, Bart Harmsen work for Panthera, with an emphasis on partners. We want to work with Jaguar conservation and one organization cannot do it. We work closely with The Forest Department. Anything that has to do with corridors or any other activity, prey of Jaguars, etc. “

Bart says “What are the long term survival needs of Jaguars in Belize? Starting point of Jaguar conservation What is the minimum number of Jaguars to guarantee long term survival of Jaguars? You need to know what the minimum number is. What is your starting point? How many Jaguars are there?”

500 breeding individuals within a single connected area: minimum.

“You cannot have the populations spread out. Smaller populations die first. Sometimes it happens because you have such low numbers. All populations need to connect so that youngsters can come into other areas and repopulate.”

“We need 500 Jaguars in Belize that are connected in some kind of way.

Neighboring countries are not doing a good job of conserving Jaguars, especially Guatemala and Honduras.”

“What do we know about Jaguar numbers in Belize? How do we count Jaguars? We need some help with recording Jaguars. We use cameras but then you have to wait until they pass. Jaguars have individual patterns. Spot patterns are like finger-prints.”

“Rough data suggests that in the Maya Mountains, there are a minimum of 400 Jaguars and in the Rio Bravo there are 215. These single units are not giving the numbers we want. 400 is really optimistic. The model is optimistic because data comes from Chiquibul and Cocks Comb area. A lot of the Maya Mountains is very rugged, not nice for Jaguars.”

Bart says “There is a lot of Xatero activity – results in low Jaguar numbers. Jaguars in unprotected areas – farmers don’t like. We need further information about their movements. We need to know something about how these cats move in the landscapes so that they are not infiltrating areas where farmers live and keep cattle. If you want to reduce conflict with Jaguars and farmers, we need to balance a lot of things.”

“In Belize, most farms are in-between a lot of forest. We need to know further information on movement and ranging behavior. So that we can plan how to better protect them. We need to connect 215 with 400. We need to ensure that there is movement in between 215 and 400. Forest cover in between here is unprotected (both sides of the Hummingbird Hwy) so there might be Jaguars still crossing the road on the Hummingbird. Tree-dwelling animals are getting hit by cars. You still get forest-dwelling animals like kinkajous and tapirs.”

In the end what we want to do is connect systems throughout Mesoamerica. That’s the grand plan of Panthera.

Question: What’s the biggest problem for Jaguars? Is it poaching?

Panthera Answer: I will answer that soon

Important next Steps

- 🐾 Secure connected ground where Jaguars are walking
- 🐾 Regulate and monitor hunting of game species. They need to eat and humans compete with them!
- 🐾 Reduce livestock predation by Jaguars in order to increase tolerance of wild Jaguars. Jaguars get shot regularly for livestock conflict. A lot of the times these conflicts cannot be prevented. It is costly to farmers, they cannot afford upgrades. The livestock in Belize is seen as a sort of Bank – you can sell cattle when you’re sick.

Question: Are you teaming with any Howler Monkey researchers because it seems like the habitat is important for monkeys too.

Panthera Answer: Yes, I suppose these corridors are very important for monkeys as well.

Question: Seeing the fragmentation, there would be an increase of inbreeding; this would accelerate the extinction of Jaguars

Panthera Answer: There is a project that is looking for a genetic exchange program. I might be wrong, but I think at the moment Belize is still connected. They are still crossing the highway and that is the reason we need to act now.

Question: Belize has a lot of corridors, but hunting is not banned in those areas. Are they good to become corridors for Jaguars?

Answer: Jaguars are only willing to cross when they see an end point...so they will cross a river if there is forest on the other side.

Question: Dr. Young; there are estimates for Belize, for Jaguars is about 1200. Both you and Marcela are using the same techniques. Why are the estimates so off?

Answer: I asked her if she takes into account the mountains. Marcela might be using a more optimistic model?

Break: 10:24 – 10:37

Dr. Young called everyone's attention and says:

- ☹ We need to account for the people who have not registered for the dinner tonight: 5
- ☹ Why were the Jaguars estimates very different? Dr. Young corrected himself that the actual 1200 was of whole country while Mr. Bart's (Panthera) was of only protected areas.
- ☹ We have four presentations before lunch.

Third Agenda Item: Hawk-Eagle Program (10:40 am to 10:55):

Ryan Phillips, Belize Raptor Research Institute

- ☹ Main program through the institute is the Hawk- Eagle Program
- ☹ In Belize we have 3 Eagle species: Ornate Hawk-Eagle (most common of the 3 in Belize)
Black Hawk-Eagle, Black and White Hawk-Eagle (rarest of the 3, we know nothing about them)
- ☹ We've only studied two nests in its entire range. We've found a nest in Belize

Overview:

- 🐾 Hawk- Eagle Program started in Rio-Bravo: we are studying three active nests. The program started in 2008. We want to move out into Cockscomb but we are mainly focusing in Pine Ridge and Rio-Bravo.
- 🐾 We just got funding to do more research on Eagles
- 🐾 Why study Eagles? They are an apex predator, they are good indicators of a healthy ecosystem, little known on natural history and demographics, evidence of declines due to deforestation, habitat degradation and poaching, need to determine area requirements and status to make proper management decisions, to educate and train locals in raptor conservation.

What Little We Know

- 🐾 Ornate Hawk-Eagles are studied the most
- 🐾 We know a little bit about the Black Eagle
- 🐾 Black and White Hawk Eagles are the least studied – they are very rare.

Objectives

- 🐾 Locate and map Hawk-Eagle nests and sightings throughout the region
- 🐾 Better understand breeding biology including courtship, nest-site fidelity, habitat preference
- 🐾 Determine productivity and survivorship
- 🐾 Determine diet and foraging habits
- 🐾 Determine home-range for both adults and juveniles
- 🐾 Determine minimum area requirements and minimum viable population size
- 🐾 Understand intra-specific and inter-specific competition
- 🐾 Educate and train national and international students in raptor biology and field research.

Results To Date

Our focus is Black and White Hawk- Eagle

- 🐾 Located 9 nests with 4 currently active
- 🐾 Continuously monitoring three nests (1 of each species)
- 🐾 Obtained hundreds of sightings for our database

Ornate Hawk-Eagle Nest Survey Results

- 🐾 64 hours of observations of incubation period
- 🐾 Juveniles observed at 2 nests for multiple years
- 🐾 Females lay eggs in March
- 🐾 Incubation 45 days
- 🐾 Fledging at 60 days

B.W.N.C. –Meeting Minutes, August 2009

- 🐾 Dependency period 7-13 months
- 🐾 Breed every other year at best
- 🐾 Prey primarily on large birds

(Showed photographs of nests)

Black And White Hawk-Eagle Nest

- 🐾 Nest was not successful (photo). We will focus on this species next year

Future Plans for the Program

- 🐾 Outfit at least 2 pairs of each species with transmitters
- 🐾 Train locals through workshops
- 🐾 For more information visit www.belizeraptorresearch.org
- 🐾 Or e-mail at harpiabz@yahoo.com

Comment: Did you look at Hill Bank? There was a nest there.

Hawk Eagle Program Answer: Yes there was one there. How long ago was that?

Answer: 6 years ago

Comment: There are other good areas. One was shot.

Response: Oh really?

Question: The rarest of the birds is the Black and White?

Answer: Yes

Question: What is the range of these species?

Answer: From Southern Mexico To Northern Argentina. Belize is a great spot to produce a model for these species since there are a lot of protected areas here.

Question: These Hawk-Eagles are near population centers?

Answer: Yes, some species are in populated areas while others no. Ornates are found everywhere.

Fourth Agenda Item: Current Status of the Orange Breasted Falcon in Belize

Marta Curti and Yeray Seminario, The Peregrine Fund

- 🐾 It was founded in 1970 – essentially for the endangered falcon
- 🐾 Started with the Peregrine Falcon crisis in north America
- 🐾 Project Locations: 30 projects all around the world

Goal

- 🐾 Protection of biodiversity

Projects

- 🐾 Aplomado Falcon restoration
- 🐾 Asian Vulture crisis – Pakistan and India population decreased by 90%
- 🐾 California Condor restoration
- 🐾 East Africa project
- 🐾 Madagascar project
- 🐾 Harpy Eagle conservation and research
- 🐾 Pan Africa conservation program

Neotropical Environmental Education

- 🐾 Belize
- 🐾 Guatemala
- 🐾 Panama
- 🐾 Mexico

The Orange-Breasted Falcon Project

- 🐾 Much less known
- 🐾 Began in 1979
- 🐾 1991 – Maya project 19 nests found (largest concentration of nests: Belize, Guatemala; the bird is not sited any where else in Central America)
- 🐾 2000 – began to report on the species' population status
- 🐾 it is the rarest falcon in the world

Objectives

- 🐾 Determine population status in Belize, Panama and Guatemala
- 🐾 Study reasons for apparent low productivi

Distribution

- 🐾 Very little known
- 🐾 Occurs probably from Mexico to Northern Argentina
- 🐾 Rare and local everywhere
- 🐾 Patchy distribution
- 🐾 Absent from apparently suitable habitat.

Status in Central America

- 🐾 Isolated northern population
- 🐾 Probably less than 50 pairs

We do an over flight to search for cliffs. We search for individuals or pairs. Not a single bird was found in the region and we do not know why. There is no genetic difference between birds in Belize and in Panama.

Appearance

- ☹ Medium-sized powerful falcon
- ☹ Dark coat, white throat and orange breast
- ☹ They can be very difficult to tell apart from the Bat Falcon; call, size, waistcoat, thigh color and bill size vary slightly

Habits

- ☹ Highly specialized raptor
- ☹ Tropical and subtropical forest
- ☹ Nests mainly on large cliffs
- ☹ Slow rate of reproduction
- ☹ Non-migratory
- ☹ Possibly sensitive to human disturbance

We found a lot of nests along river systems and sinkholes in Belize.

Diet

- ☹ Mainly birds, bats, reptiles and small mammal

Main Threats

- ☹ Logging, slash and burn agriculture, shooting, predation, inbreeding and pesticides

Deforestation

- ☹ Affects nests

Predation

- ☹ Increase in Black Vulture population might affect Orange-breasted Falcon's productivity.

Fieldwork

- ☹ Observe known pairs
- ☹ Determine occupancy and number of fledglings per pair
- ☹ Aerial and terrestrial surveys to find new pairs
- ☹ We found one new nest in Guatemala

Results

- ☹ 16 known eyries in Belize – total in region

- 🐾 Eyries visited- 16 in Belize
- 🐾 Occupied eyries – 11 in Belize
- 🐾 Confirmed successful eyries – 3 in Belize
- 🐾 Confirmed unsuccessful eyries – 4 in Belize
- 🐾 Status unconfirmed – 4 in Belize

Future Goals

- 🐾 Continue monitoring nests
- 🐾 Expand search to locate nests
- 🐾 Determine reasons for high nesting failure

Question: You don't think that nesting failure could be because they are very sensitive to human activity?

Answer: No, they don't know we are there. We've only put 2 cameras in two nests.

Question: You should check out the incredible footage.

Answer: Yes I should see that.

Fifth Agenda Item: Study of Ateles Geoffroyi Yacatanensis at Runaway Creek Nature Reserve

Brittany Dean and Stevan Renau, BWB-RCNR

- 🐾 Ranges from the Yucatan Peninsula to Belize
- 🐾 The study site is on Runway Creek Nature Reserve
- 🐾 It was started in 2007 by Mary Pavelka and Dr. Hugh Notman of the University of Calgary (first to study spider monkeys)

Purpose

- 🐾 Establish a long-term research program to study the behavior of spider monkeys

Research Updates

- 🐾 5 adult males, 5 juveniles and 3 infants
- 🐾 12 females, 1 sub adult

Current Studies

- 🐾 Assess diet and activity patterns and how these relate to food availability and distribution

Diet and activity

- 🐾 Insect, eggs, limestone fragments
- 🐾 They spend most of their time foraging, do not spend too much time socializing

Cave Use

- 🐾 Spider monkeys use caves (video shown)

Fission-Fusion Dynamics

- 🐾 Similar to chimpanzees in social organization and ranging patterns
- 🐾 High-quality food distributed

Sexual Segregation

- 🐾 The separation of males and females spatially, socially or by habitat
- 🐾 Males form all-male subgroups, use larger overall areas and travel farther during the day, more affiliative and cohesive

Habitat Disturbance

- 🐾 Spider monkey survival depends on large tracts of undisturbed forest
- 🐾 Do not survive well in fragmented forests

Natural History

- 🐾 One of the largest new world primates, can weigh up to 20 pounds
- 🐾 Slow life histories
- 🐾 Females first reproduction: 7 years
- 🐾 Gestation – 8 months
- 🐾 Interval birth- about every 3 years

Illegal Pet Trade

- 🐾 It is illegal to be kept as pets as stated in the Wildlife Protection Act. However they are still hunted and captured
- 🐾 They are very good for spreading seeds so they are important
- 🐾 Often considered an indicator species because of their seed dispersal

Essential to Spider Monkey Survival In Belize

- 🐾 Protected areas and continuous tracts of undisturbed forest
- 🐾 Protection through law enforcement
- 🐾 Education

Question: Is the population decreasing?

Answer: So far it's increasing.

Question: How are you analyzing fecal samples?

Answer: I don't know.

Question: Not a lot of spider monkeys in the Cockscomb – due to not a lot of figs?

Answer: Figs are not too important for spider monkey diet.

Question: Are there any interactions between spider and Howler Monkeys?

Answer: Only for a while, we have seen the younger ones play with each other.

Question: Do you commonly see that?

Answer: It's not an every-day experience.

Dr. Young: Please sign up outside if you want to attend the dinner at San Ignacio Hotel. From 1pm to 4:15 there will be 5 minute presentations from everyone else. Ed is coming up next. We are 15 minutes behind. Let's invite Ed up.

Fifth Agenda Item: Importance of Riparian Forest Protection as Wildlife Corridors

Dr. Ed Boles, Nature Works

- 🐾 Ed Boles: Aquatic Ecologist
- 🐾 Riparian Forests: include those trees, shrubs, vines and associated plants inhabiting stream and river banks that are adapted to the fast flow of floods, and can survive being periodically inundated by water

Functions Of Riparian Forests

- 🐾 Stabilize river banks
- 🐾 Provide important nutrients
- 🐾 Shading, temperature
- 🐾 Providing submerged wood,
- 🐾 Stabilizing river beds
- 🐾 Serve as wildlife corridors

Riparian Forest Wildlife Habitat

- 🐾 Mammals, birds, reptiles

Riparian Forests are being removed at an alarming rate of 8 to 10% per year outside of protected areas due to large scale farming, milpa farming and citrus agriculture.

I just visited Sittee river and I was shocked at the amount of clearing I've seen there.

Cattle have a big impact, adding heavy loads of nutrients.

Large-Scale Agriculture In The Belize River Valley

- 🐾 Corn, beans, cattle production around Spanish lookout contributes to significant impact to the river
- 🐾 Riparian forests are usually removed to provide access to the river
- 🐾 Mining may also destabilize river banks and Riparian trees

- 🐾 In-stream gravel mining greatly impacts streams
- 🐾 Large scale hydroelectric facilities that includes reservoirs impose significant damage on Riparian forests
- 🐾 Twenty-four new potential dam sites have been identified in Belize

Restoration Strategies

- 🐾 Exclude grazing livestock
- 🐾 Remove introduced species (we find that a huge number of Riparian trees are next to agricultural facilities)
- 🐾 Re-plant Riparian trees (possible)
- 🐾 Remove unnatural structures (those that are no longer needed)
- 🐾 Promote awareness
- 🐾 Involve local communities, especially youths (this gives youths a great opportunity to engage in projects)
- 🐾 Increasing the width of Riparian habitat
- 🐾 Strips that are no longer cleared can be restored
- 🐾 Dependent on the characteristic of the river bank, shallow, deposition banks being typically easier to rehabilitate than steep cut banks.

Width of Riparian Forests

- 🐾 How wide does it need to be in order to be effective?
- 🐾 Policies, plans and strategies: integrated water resource management policy and plan, agriculture and fisheries national food and agriculture policy, policy on adaptation to climate change, national protected areas management policy and plan

Ultimately the responsibility of designating Riparian areas on deeds and leases rests with the Lands and Survey Department for areas outside of parks and reserves.

This is a major and national issue of concern. If you look at Guatemala you will see the effects on Riparian forest.

Question: You use the word adaptive for macaws. The macaws will return to their home nests, even if they fly away they will come back. Macaws are not adapting, they are struggling.

Ed Boles Answer: Thanks for pointing that out.

Question: How much Riparian forest is in protected areas?

Ed Boles Answer: I don't have that information.

Sixth Agenda Item: Human Dimensions of Wildlife Conservation- Winning Hearts and Minds

Ed Clark, Wildlife Center of Virginia

- 🐾 Explained a little about WCV
- 🐾 They are concerned about the individual animals that come into their facility, concerned about the causes that bring the animals to the hospital
- 🐾 53,000 animals have been treated at the hospital
- 🐾 Conservation is not a hard science; not zoology, more about sociology, anthropology, education
- 🐾 Its about changing human behavior
- 🐾 We've got to find ways to make this work

Wildlife Faces Many Problems

- 🐾 Environmental toxins, climate change, competition with domestic animals, loss of genetic diversity, invasive species, disease, loss of habitat, illegal captivity/ pet trade
- 🐾 Pet trade often dwarfs the international trade
- 🐾 One out of 4 households had illegal pets in Costa Rica: bad attitude?
No, not their attitude, their behavior
- 🐾 What people do is the problem! Not humans!
- 🐾 Deforestation,
- 🐾 Habitat destruction
- 🐾 Poaching
- 🐾 Illegal trade in wildlife and animal parts
- 🐾 Pollution

The Challenge: Persuade People to Become a Part of the Solution!

- 🐾 Inform, teach, motivate, and provide examples; Inspire
- 🐾 We love this beautiful country; we have a lot to share, but our communication as a community with those not in this room is harsh, unfriendly, unpleasant, etc.

How People Feel Determines What They Are Going To Do

- 🐾 Fear, superstitions, traditions, cultural history, folklore, rumor, religion, politics, prejudice, pride
- 🐾 People used to be afraid of gorillas – they would believe they were going to steal their babies
- 🐾 Conservation has worked because it is the basis of some economies

We Must Win Hearts Before We Can Change Minds and Behavior

- 🐾 We must understand others before we expect others to understand us.

- 🐾 To understand others we must accept that they will do what is right if we can show them that it is in their interest to do so.
- 🐾 We need to show them that we understand them and that we are working toward the same end.
- 🐾 Most people see wildlife conservation as caring more about animals than people
- 🐾 We must present our information in terms that have meaning to others

Animal People Need Human Relation Skills To Succeed

- 🐾 The ability to persuade, not argue
- 🐾 The capacity to listen and to hear
- 🐾 The vision to see the other person's point of view
- 🐾 The wisdom to work for win-win
- 🐾 It doesn't have to be our issue verses their issue

Why Some Wildlife Rehabbers Can Be Their Own Worst Enemy

- 🐾 We are often our own biggest problem
- 🐾 Animal people love animals but don't like people
- 🐾 The truth is that there are lot of us out there who would love to work with just animals
- 🐾 Being here represents a major step for conservation in Belize: networking
- 🐾 We act like we don't like each other.
- 🐾 We criticize each other to everyone who will listen.
- 🐾 They do nothing but complain – about other people

We Will Never Change People's Behavior If You

- 🐾 Do not know why they behave as they do
- 🐾 Don't respect them for what they are or have achieved
- 🐾 Threaten or anger them

Disagree With Opinions/Actions, Don't Attack People

- 🐾 People have the right to be jerks
- 🐾 Comment on their behavior, not motives
- 🐾 Respond to people's actions or decision, not to what you think they think
- 🐾 Don't assume that when someone disagrees with you that they are attacking you

To Guarantee Failure With Government Officials

- 🐾 Threaten to have the official thrown out of office
- 🐾 Embarrass the official publicly
- 🐾 Call them names on television

- 🐾 Provide incomplete or inaccurate information
- 🐾 Attack officials who disagree with you

Secrets That Most Wildlife Advocates Learn The Hard Way

- 🐾 Seek to influence action, not motives
- 🐾 Persuasion is easier than coercion
- 🐾 Your opinion doesn't change people's behavior
- 🐾 You don't scare anyone

People Do The Best They Can Within Their Limits

- 🐾 Capacity
- 🐾 Knowledge
- 🐾 Experience
- 🐾 Values (missing because it's not a part of the local culture)
- 🐾 Self-interest (we are all humans)

Our Mission

- 🐾 You have a wonderful opportunity in Belize because you have a lot more nature left.
- 🐾 The Wildlife Center of Virginia, a hospital for wild animals, teaching the world to care about and care for wildlife and the environment.
- 🐾 You have the opportunity to teach a future generation

To Educate People We Must First Learn

- 🐾 People's interest/activities

Educating Children and Adults Is Very Different

Children:

- 🐾 Have a great curiosity
- 🐾 They want to know new things
- 🐾 Love to play
- 🐾 Use their imagination
- 🐾 Want to please adults
- 🐾 Still have open minds and hear

Adults:

- 🐾 Need to be respected
- 🐾 Need to provide for family
- 🐾 Act within their own systems of beliefs

- 🐾 Don't like change or risk –
- 🐾 Need to be convinced

There Is a Special Opportunity And Responsibility With Children

- 🐾 Children form the values that they will keep for a lifetime when they are 11-13 years old
- 🐾 Often times what we believe as adults were formulated at this age
- 🐾 We have an opportunity to target kids at an age before they become 11-13
- 🐾 Children's minds are open to new ideas and new relationships with the natural world

Children Must Care 'About' Before They Care 'For' Wildlife

- 🐾 Children must be aware that wildlife exists
- 🐾 They must be inspired to imagine the life of the animals in the natural world
- 🐾 If children encounter nature and develop a foundation of positive experiences, this will be the basis of the adult values
- 🐾 Each person must understand that personal decisions make a difference in the world.
- 🐾 Gave example of apple-core: dead animal on road due to smell of apple core

Every Single Child Has the Capacity to Not Throw Litter on the Road – Saves the Lives of Animals

WCV Outdoor Education Program – Feelings Not Facts

- 🐾 Goal: help children to experience nature in a new, exciting ways, using new senses
- 🐾 Goal: encouraging children to imagine the life of wild animals in their natural habitat
- 🐾 Goal: enable children to discover the importance of a healthy environment
- 🐾 Goal: empower children to take responsibility for their decisions

What Do the Children Discover

- 🐾 There is more than one way to experience nature; sight, sound, smell, taste, touch, spirit
- 🐾 Their animals needs water, shelter, etc.

Experiential Education Can Be Done Anywhere In The World Where Animals Live.

You Will Never Touch A Heart With A Fist:

- 🐾 Wildlife centers need people skills

WE ARE ALL PART OF THE PROBLEM, THEREFORE WE ALL HAVE THE OPPORTUNITY AND THE RESPONSIBILITY TO BE A PART OF THE SOLUTION

Question: We don't have time to change people's hearts.

Answer: Maybe we don't need to change everybody's hearts, just those at the Forest Department.

LUNCH BREAK: 12:25 – 1:30pm

Introduction of Wildlife Conservation Organizations and Projects in Belize (short presentations by representatives)

Dr. Young: called the attention of the audience to start the afternoon session of the conference. From 1 to 3pm: short presentations by representatives. There is an alphabetical list of organizations on page 4. If some of you are not on the list, try to insert yourself alphabetically on this list. The deal is you get 5 minutes to tell us who you are and what you do as it relates to wildlife conservation in Belize.

Seventh Agenda Item: ACES/American Crocodile Education Sanctuary

Marisa Tellez presenting for Cherie Chenot-Rose, Biologist

- 🐾 She's a PhD graduate student from UCLA that works with ACES.
- 🐾 They promote relocation of problematic crocodiles
- 🐾 Located in Toledo, Punta Gorda, next to the Rio-Grande river
- 🐾 Crocodiles at the sanctuary are not put in cages. Its almost like if they are not in captivity
- 🐾 Two species: Morelet's and American
- 🐾 ACES main focus: American crocodile
- 🐾 American crocodile is more cream-colored while morelet's crocodile is more black and white
- 🐾 It's also about education. She came to start awareness and research.
- 🐾 Snapper was held in captivity, she assessed her. (interested in parasites of crocodiles)
- 🐾 The sanctuary has a wild croc that is close to the sanctuary
- 🐾 Its not only about the education of national and international students, but also a lot of scientific research
- 🐾 Problematic crocs are illegally fed
- 🐾 Crocs that are kept in captivity become very ill. One croc was full of algae, bacteria infection, they have the strongest immune system in the world – but it can breakdown
- 🐾 Mama is the wild croc that goes around the sanctuary; she was studied for 6 years. Crocs are aware and have emotions; she has a crush on Vince.
- 🐾 Working at the zoo, the crocs know that you won't hurt them
- 🐾 Education is very big with ACES

8th Agenda Item: Belize Audubon Society

Mr. Heusner came to represent himself and not the society

- 🐾 Belize barrier reef was placed as endangered

- 🐾 We manage this: some people took it as an insult to Belize: I take it as an incentive to do better
- 🐾 BAS with NC has studied Half-Moon Caye and the Blue Hole to see how they have been progressing, what are the problems, etc.
- 🐾 The president is Earl Green
- 🐾 They are now ahead of the game with the reef
- 🐾 Audubon tries to be proactive
- 🐾 Manage Cockscomb and Crooked tree
- 🐾 Manage 9 protected areas for GOB, they are trying to give them more, but it's hard to keep up. They get no fundraising from the GOB to do this, so we get international funding.
- 🐾 We cooperate with a lot of agencies: you will run into obstacles.
- 🐾 Has been a member for 39 years.
- 🐾 Age level of people involved in environment
- 🐾 The Blue Hole is still within the carrying capacity

9th Agenda Item: ARCAS: Association Rescate Y Conservacion De Vida Silvestre

Alejandro Morales, Assistant Director

- 🐾 We are from Guatemala
- 🐾 We are here to learn
- 🐾 Was founded in 1989
- 🐾 The main goal was to establish a rescue institute
- 🐾 Mission: to give better chances of survival and biodiversity.
- 🐾 Objectives: rescuing, rehabilitating, doing environmental education, research, sustainable development
- 🐾 Managed in 4 areas: Peten, Guatemala City, Hawaii, Cerro Alux
- 🐾 Guatemala City is the largest city in central America
- 🐾 Was able to retrieve 41,000 turtle eggs
- 🐾 Work together with BWB
- 🐾 We get people from the government working with us
- 🐾 Receive 35 species of animals per year
- 🐾 235 animals in rescue centers
- 🐾 Have rehabilitation for primates
- 🐾 Have environmental education for kids
- 🐾 Have library that hosts 1000 students per month

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- 🐾 Try to preserve animals outside the center
- 🐾 Work with Jaguars without borders
- 🐾 Have volunteer program

10th Agenda Item: Be Kind Belize

Colette Kase

- 🐾 I've been used to teaching children
- 🐾 Human education program based in San Pedro and Ambergris Caye
- 🐾 The reef is our eco-system
- 🐾 I go into primary schools and work with kids. I'm hoping to spread the program nationally. She set up the program
- 🐾 They have had problems with keeping wildlife as pets
- 🐾 They didn't want to do anything proactive
- 🐾 How can I contribute to the welfare of my environment
- 🐾 In the last 3 years I've been developing this program
- 🐾 For the last year I've been reworking the program – kids teach me so much
- 🐾 She wants it to be like an educational franchise

11th Agenda Item: Belize Bird Rescue

Jerry Larder

- 🐾 Born to be Wild in Belize
- 🐾 Established in 2004
- 🐾 Forest Department sanctioned
- 🐾 Privately funded
- 🐾 Locally managed
- 🐾 50 Acre riverfront private protected area
- 🐾 Adjacent to hundreds of acres of undisturbed forest
- 🐾 Not open to general public
- 🐾 Open for supervised educational visits
- 🐾 We are a rehab center and not a zoo
- 🐾 We just want to rehabilitate birds
- 🐾 We will take any avian species so that it can be released in the wild
- 🐾 Rehabilitation is almost impossible when too many people are around

- 🐾 Birds unsuitable for release due to injury or imprinting, may be used for educational purposes
- 🐾 We see a lot of illegal hunting, gathered birds,
- 🐾 Sometimes it takes 2-3 years to be rehabilitated back into the wild
- 🐾 The amount of birds we actually put back in the wild is tiny
- 🐾 We want to help in the enforcement of the law
- 🐾 We euthanize when we think it's necessary
- 🐾 Education is the only way to ensure the future of all birds and wildlife in Belize
- 🐾 May lead to more robust legislation
- 🐾 Reinforce the value of indigenous wildlife to the tourism industry
- 🐾 Introduce non-lethal agricultural practices
- 🐾 Awareness of habitat destruction
- 🐾 Cessation of nest robbing
- 🐾 Discourage indiscriminate use of pellet guns and sling shots

Care of Captive Birds Or Pets

- 🐾 We give advice on care of captive birds, cage design, toys for mental stimulation, wing clipping, nutrition, etc.
- 🐾 Not all parrot keepers know how to keep their pets happy and healthy
- 🐾 Have posters promoting “Born to be Wild”

Our Facilities

- 🐾 Primary flight aviary, small aviaries

12th Agenda Item: Forest Department

Rasheda Sampson

- 🐾 Protect wildlife in Belize
- 🐾 Main work includes amending laws, public outreach, work closely with ACES
- 🐾 Wild-life is a cultural issue, we cannot stop it overnight
- 🐾 Very happy for this conference

13th Agenda Item: Belize Raptor Research Institute

Ryan Phillips

- 🐾 Striving to protect birds of prey

- 🐾 Mission: help protect Neotropical raptors in the Northern Central America region through sound science approach
- 🐾 First came to Belize in 2004
- 🐾 Poaching is a huge concern
- 🐾 He started institute two years ago
- 🐾 Goals: better understand raptors through science so we can better manage them
- 🐾 Provide education
- 🐾 Train future conservationists
- 🐾 Provide volunteer and internship opportunities

Institute started in 2008, have 4 projects: Hawk-Eagle Program, The Solitary Eagle Project, Migration Study and Stygian Owl Study.

Future Goals

- 🐾 Continue all current projects
- 🐾 Start the first raptor watch
- 🐾 Produce an archive of all raptor records
- 🐾 Conduct interview surveys to determine key areas where education should be implemented
- 🐾 Produce a raptor conservation poster and mini guide
- 🐾 Form more partnerships and collaborate with other organizations
- 🐾 Build a facility on the newly acquired land to house researchers
- 🐾 Build an education center, so all Belizeans have a place to learn about raptor education and view them in the field

14th Agenda Item: Belize Tropical Forest Studies

Jan Meerman

- 🐾 Started with 125 species for Belize in 1989
- 🐾 In 2008 the recorded number of species passed the 1000 mark
- 🐾 In 1996, the recorded number of new species – 174
- 🐾 Started with 12 species of flowers in Belize
- 🐾 In 2000 now 25 species
- 🐾 2 lizards
- 🐾 2 snakes
- 🐾 1 new bird

- 🐾 2 tarantula's
- 🐾 2 cycads in Belize
- 🐾 GIS work: most will be familiar with the Belize Ecosystem Map: First version published

You can find all the data uploaded on <http://www.biodiversity.bz> for free

Environmental Consulting: 2 person organization with no funding. (what funds him)

EIAs: - they feed me so I work with people who want to destroy biodiversity

15th Agenda Item: Runaway Creek Nature Reserve Research and Conservation

Wilbur Martinez, Birds Without Borders/Aves Sin Fronteras

- 🐾 Was started by Dr. Gill Boese in 1997
- 🐾 All the fieldworkers are Belizeans – receiving training from U.S.

Research, Conservation and Education

- 🐾 Nest searching and monitoring
- 🐾 Mist netting and bird banding
- 🐾 Vegetation measurements
- 🐾 Outreach programs
- 🐾 Land conservation
- 🐾 25 Belizeans have received training through our organization
- 🐾 The program has evolved: not only study birds
- 🐾 Have purchased runaway creek nature reserve, located on the coastal road, one of the last remaining reserve in central Belize
- 🐾 RCNR and adjacent protected areas: Peccary Hills National Park

RCNR Diverse Landscape

- 🐾 Riverine forest
- 🐾 Karst hills (limestone)
- 🐾 Seasonal wet lands
- 🐾 Savannah

Threats

- 🐾 Illegal logging
- 🐾 Illegal hunting (during dry season)
- 🐾 Development

Current Activities

- 🐾 Rapid ecological assessment
- 🐾 Current findings are orchid gardens, archaeology sites, wildlife (crocs, birds of prey, amphibians)

Ongoing Projects

- 🐾 Mist netting
- 🐾 Jabiru stork monitoring
- 🐾 Jaguar research
- 🐾 Spider monkey research

16th Agenda Item: Casa Avian Support Alliance (CASA)

Jodi Bente, Director

- 🐾 Established in 2006, NGO in Belize, hosted by an eco-lodge, located on Bullet Tree road in San Ignacio
- 🐾 Mission: biodiversity conservation, education and outreach
- 🐾 Patients: gathered from home owners and business, 52 to date
- 🐾 28 volunteers over the last two years (13 currently)
- 🐾 Volunteer for one year appointments
- 🐾 Have a visiting scholarship program
- 🐾 Key challenges include finding food for their patients, managing donated items, cultivating donors, husband and she are founders.
- 🐾 23 acres make up the property, 6 members on board,
- 🐾 Dr. Isabelle, Mr. Tesecum, Ms. Tracy and Ms. Carole – thank you!

Question: have you had contact with migratory species?

Answer: Do not see any migratory species.

17th Agenda Item: Friends for Conservation and Development (FCD)

Rafael Manzanero, Executive Director

Dr. Colin Young informed audience a little about Galen while waiting for Rafael to show up

- 🐾 Galen is a liaison institution that offers undergraduate and graduate programs: 7 undergrads that are accredited by University of Indianapolis
- 🐾 3 primary goals: academic excellence, respected human rights, sustainable development engrained throughout entire programs.
- 🐾 Galen offers a minor in sustainable development

- 🐾 Have four graduate programs
- 🐾 We currently have about 250 students but we are hoping to go over 300 mark in Fall.
- 🐾 Have the highest PhD to student ratio on campus

-

18th Agenda Item: Panthera

Dr. Bart Harmsen

- 🐾 Works very closely with UB to start ERI program (Jaguar program)
- 🐾 Happy to work with Galen as well
- 🐾 Panthera works for the conservation of wildcats throughout the world
- 🐾 We want to locally find partners to help us achieve our goals and their goals
- 🐾 Help to facilitate research in a country for conservation
- 🐾 Panthera is a young organization,
- 🐾 Partners include BAS, Belize Zoo; Jaguar Rehab Program, Forest Department
- 🐾 We need to work on education (we're not good at that – let other partners do it)
- 🐾 We gave the FD car and fuel to drive around
- 🐾 We try to look into the programs of other organizations
- 🐾 We hope to increase the number of Belizeans to take up the responsibility

19th Agenda Item: Green Iguana Project

Mariam Roberson, San Ignacio Hotel

- 🐾 Mariam Roberson is director and Eddy is the care-taker of the Green Iguana Project
- 🐾 Have been running the program for 13 years
- 🐾 It was encouraged by the Zoo
- 🐾 It was an interesting component to bring to the Hotel as a sustainable project
- 🐾 We don't profess to be educators, not professionals in the field
- 🐾 Main goal: education and awareness
- 🐾 For the past 6 years it has been a big learning experience
- 🐾 It has transpired into a very successful, sustainable project
- 🐾 One of my ultimate goals: make the awareness of the species through the program
- 🐾 It makes me feel good that we can provide a use for education with the iguana project
- 🐾 It increased our knowledge of the species
- 🐾 We had to move the project up from the river

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- 🐾 Last year we had 20 eggs, 15 hatched
- 🐾 This year we had 35 eggs, 24 hatched
- 🐾 In total we have 200 iguanas (38 adults, 68 juveniles and 100 babies)
- 🐾 It brought a lot of environmental education to the staff
- 🐾 It established a green team: best management practice program
- 🐾 We are ready for certification. We've had amazing education
- 🐾 We are looking at trying to make a documentary. We've had many partners that have filmed the project
- 🐾 Scholarship funds for some students at the high school level
- 🐾 We took two children off the streets – connected them to the program

20th Agenda Item: The Belize Zoo

Sharon Matola, Director

- 🐾 Harpy Eagle Restoration Program in Belize
- 🐾 Was founded in 1983
- 🐾 Big thank you to GOB and Forest Department: they gave me permission to run a zoo
- 🐾 There was a need for a place in Belize where children can get to know their animals
- 🐾 It seemed necessary to educate children about the animals of their nation
- 🐾 It feels good to hear when people refer back to the Zoo.
- 🐾 There was a big celebration in Roaring Creek
- 🐾 We need to work together because things are disappearing quickly
- 🐾 Birds are in scant population due to habitat destruction
- 🐾 Program involves the captive breeding of Harpy Eagles
- 🐾 In total, 14 Harpy Eagles have been released. 5 have died, 3 from being shot, 2 from unknown causes
- 🐾 The Peregrine Fund trains the birds to become independent hunters. They are transferred to Belize; they are released into the forest.
- 🐾 You must have a complementary education program for conservation to be successful
- 🐾 The Program is and will continue
- 🐾 The Belize zoo will continue to work with the releases and with the Environmental Education at the Belize Zoo

Question: How did you get the community involved?

Answer: 3 birds were shot. We found out about it.

Break: 3:10 – 3:25pm

Dr. Young called everybody's attention at 3:25 pm.

We are ready to start! (3:27pm)

After a few more presentations, we will have a discussion about what issues affect wildlife conservation. Next on my list is the University of Belize.

21st Agenda Item: University of Belize

Emilio Montero

- 🐾 Did not come to represent UB even though I work there
- 🐾 I like to educate students: work out of faculty of science and technology
- 🐾 I really believe in networking, we play soccer in Belize.
- 🐾 Biology, conservation, environment is now my area of priority
- 🐾 I like meeting people
- 🐾 We need a lot of experts (Belizeans) so I would like to expose my students to wildlife and conservation
- 🐾 Hopefully one day they will become interested in Jaguar, etc.
- 🐾 I know now where to take my students
- 🐾 I decided to come to this conference because one of my ex-students attended yesterday.

22nd Agenda Item: Ya'axché Conservation Trust (YCT)

Nick Wicks

- 🐾 Nick Woods yct.sustainable.landuse.pm@gmail.com
- 🐾 Mission: integrating landscape management
- 🐾 We are community oriented but not community based
- 🐾 Maya Golden Landscape: where we work: private protected area
- 🐾 We also co-manage the nature reserve; you can still find Harpy Eagles flying around.
- 🐾 We also work a lot with The Forest Department as well as with TIDE,
- 🐾 They manage 3 groups of protected area, private lands,
- 🐾 We also work a lot with the communities: Silver Creek, Medina Bank,

Program Areas

- 🐾 Sustainable land-use management

- 🐾 Community outreach and livelihoods
- 🐾 Advocacy

SLM: Maya Golden Landscape Management Strategy

- 🐾 Promotion of best practices, protected area management
- 🐾 We identify focal targets for conservation
- 🐾 We develop strategies and implement them
- 🐾 We work with other private people to help them learn to sustain their lands
- 🐾 We look at the threats of protected area and financial feasibility

Protected Area Management

- 🐾 Own and manage Golden Stream corridor
- 🐾 Co-manage Bladen Nature Reserve
- 🐾 Support partners
- 🐾 Joint Ranger Program i.e. training

Community Outreach and Livelihood

- 🐾 Development of economic opportunities
- 🐾 Community development
- 🐾 Raising awareness & changing practices

Advocacy

- 🐾 Secure legal recognition of private Pas
- 🐾 Promote conservation easements
- 🐾 Promote ILM within policies and legislation
- 🐾 Increase efficiency of the NPAS-APAMO
- 🐾 Taskforce Coordinator for Toledo Healthy Forest

22rd Agenda Item: Anthropogenic Effects on Parasitism in Crocs

Marisa Tellez, PhD Project University of California, Los Angeles

- 🐾 Poster contains abstract, introduction, materials and methods, conclusion
- 🐾 Everything is connected and affects humans
- 🐾 Her study investigates parasites in crocs
- 🐾 Why choose parasites in crocs?
- 🐾 Parasites in host studies: further our understanding of host-parasite relationships
- 🐾 Crocs have the strongest immune system in the world: they wipe out HIV, etc.

- 🐾 They are extremely sensitive to environmental change
- 🐾 They play a critical role in maintaining the balance of ecosystems
- 🐾 Parasites on crocs are good indicators of ecosystems
- 🐾 They have not been very well studied in Belize
- 🐾 Consequence is a dramatic shift in ecosystem
- 🐾 I want to involve more Belizeans in this project
- 🐾 I want to get some students to be involved in this project

-

23rd Agenda Item: Belize Audubon Society

Mike Heusner, 1st VP of Belize Audubon Society

- 🐾 Does not come to represent organization, but self
- 🐾 There are reasons for Belizeans to protect species
- 🐾 This activity activates an economic impact for Belize
- 🐾 It supports 1800 jobs
- 🐾 500 million dollars a year is a conservative estimate
- 🐾 We understand that the cabinet has directed a legislation
- 🐾 Fisheries has the authority to carry out licensing
- 🐾 We don't have a lot of laws, they are ignored
- 🐾 To get the resources to get the legislation is to get sport-fishing licensing
- 🐾 Example of non-cooperation within the same ministry
- 🐾 My friends have advised me not to publish the paper that I wrote
- 🐾 The Forest Department has had excellent relations with ProBelize
- 🐾 I don't think Fisheries should be under the Ministry of Agriculture
- 🐾 The reason I wanted to attend this conference is because I think more cooperation is required between environmental organization
- 🐾 I'm used to frustrations. I don't give up.

-

24th Agenda Item: ProBelize

Michael Martin, Environmental Coordinator

- 🐾 Has worked in the environmental movement for the last 35 years
- 🐾 Has worked in Belize for the last 5 years
- 🐾 There is a lack of coordination: we do the same thing, compete for grants

- 🐾 We are available to everyone: students, NGO's
- 🐾 In the last 5 years we've written grants, business plans for different groups
- 🐾 My volunteers may be here for a week to 6 months
- 🐾 Let me know what you all are doing if I don't know already
- 🐾 We've done a lot of projects out at Gales Point with the manatees and turtles
- 🐾 I'm available as a resource. I'm not a humanitarian.

25th Agenda Item: Belize Wildlife Institute-A Project Under Development

Dr. Isabelle Paquet-Durand, Wildlife Vet, Lecturer at Galen University

- 🐾 Introduce myself: originally from Germany, vet in parasitology, wildlife medicine, rescue and rehabilitation and wildlife conservation
- 🐾 Thanks to Ed Clark, I met in 1999
- 🐾 My personal experience: the small projects seem to have the greatest efficiency in conservation. They are isolated; they don't know what's going on next door so they don't cooperate.
- 🐾 We came up with this conference to get people into one room and start some networking. I want to do some WCV in Belize.
- 🐾 Galen has agreed to support the general idea.
- 🐾 I want to give a big Thank you to PACT, who is not here anymore.
- 🐾 Thank you all for being here: Ms. Carole Manganaro – partner in crime, also a friend
- 🐾 Hope to see you all tonight at the hotel!

Ms. Carole: for anyone who will not be attending tomorrow, please leave surveys at the front desk.

DISCUSSION ON ISSUES AND CONCERNS FROM PRESENTATIONS

26th Agenda: List of Issues, Concerns, Challenges in Wildlife Conservation: DISCUSSION

- 🐾 Open floor!

Challenges:

- 🐾 Dr. Isabelle: cooperation and networking for conservation, a challenge that we have here in Belize
- 🐾 Born to be Wild in Belize: Has anyone read the wildlife laws of Belize? They are useless!
- 🐾 It says that's illegal to hunt, catch kill or all wildlife- but if you didn't know about the law, you are forgiven

- 🐾 You are allowed to shoot any Belizean wildlife in the law if it's threatening you or damaging you. So if a Toucan perches on your papaya, you can legally shoot it
- 🐾 Green iguanas: nothing was done about eating iguana eggs
- 🐾 The laws are not enforced. What I would really like from everybody here is help in drafting the amendments
- 🐾 The laws are useless.
- 🐾 Why a Hicatee managed by the Fishery Department?

Dr. Isabelle: Legislation is a challenge

University of California (Marisa): If police enforce the laws, they would get a lot more money! It would decrease the amount of illegal activities.

Rebecca Foster with Panthera: You can get a gun license (Police) without a hunting license (Forest Department).

BTBWIB: Most gun licenses are issued as personal protection and farming licenses. There is no gun permits for a hunting rifle.

Panthera: If a person has a gun in an illegal place, he can go to jail for 5 years.

BTBWIB: you can go to jail for 10 years just for one illegal shotgun.

Animals are kept in poor condition. Several birds were seized and put into rehab. A minister sent a message to forestry: if you don't get those birds back to their owners, we will fire a lot of you.

Dr. Tesecum: The following day we were told to take them back by the Minister. Instead of the minister having the last say, maybe the National Assembly should have the last say.

BAS (Mr Heusner): Every day we see challenges and contradictions. We see laws in Tourism and traffic laws that are not enforced. We get exemptions to the laws because everybody has a friend in law enforcement or government. We are such a small country with the Brain Drain. Before UB and Galen, you had to go outside to study. Brain Drain has hurt this country. When I went to the States I felt privileged to have come from Belize. We see contradictions in the laws that we run into. We see political contradiction. The reason I'm saying this is because we can talk about all these generalities for the last 25 years and where do we go? I think we need to pick out one or two things to concentrate and work on. The laws are either ignored, or contradicted. Ministerial discretion is a good thing to have if you're a minister, but if you're not then....I'm an environmental addict.

Mr. Ed Clark: It would be a wonderful thing for communities to cultivate good relationships with one or two very capable journalists. Get them to put embarrassing stories about GOB. You don't want to be the one to stand up and call the government official an idiot, but to have someone else do it for you on your behalf without your fingerprint is wonderful! Your case is that you are arguing for Belize, for the children, for the natural resources.

Dr. Young: there is a network called BURN. It's a group of journalist in the country that receives particular training to do environmental reporting. They've done pretty nice pieces in that type of thing.

I have a lot of experience in co-management. When you look at places where I come from are poor. We have to look at laws and make them reasonable. We have to make accommodations for those who don't live like us.

Dr. Boese: Private protected areas should be talked about tomorrow. We need to come up with an army to protect thousands of acres throughout the world. There are big challenges to do what Panthera wants to do: link organizations together and have them protect land. All this country is beautiful. We've got to move quickly. (Connectivity and habitats)

UB Rep: I am a Belizean. Very few people are from Belize. I agree with what you are saying. I learn a lot about my country from people who come outside. Unity, education and so on, does make a difference. Two years ago we have APAMA. There is the Bacalar-Chico was going to be sold and organizations came together and said, "No, you can't do that. Don't sell for 2 million dollars!"

A poor man in the jungle needs to feed his family. What do we do? Andre is going to become a Belizean leader! He can start to make a difference in The Forest Department and Belize. Even though UB is only 9 years old, we are starting to make a difference. Students are very sensitive to conservation and wildlife.

Maybe we need to step back and say, "What can be done". I've been working in the country since 1986. What's the bigger picture?

Dr. Boles: how many tourists eat wildlife of Belize? The Exotic meat industry – a growing area.

Ya'axché: we mentioned legislation. Its outdated, inadequateand it all comes from policies. Again, every single policy is developed in a sectoral manner. It is developed to ensure centralized power. We are

not seeing enough decentralization of power in local communities. Ministry of Natural Resources is developing a policy. Great opportunity for us to come together. We need to team up with the agricultural sector, tourism, etc. We need to have one sustainable development policy to conserve wildlife and a whole series of acts. We can have a whole plan for the country that identifies the corridors, areas for agriculture, etc.

Mr. Bart: Panthera: Ministers overrule certain things. That will happen for a while. We need to have a win-win situation: poor man and conservationists. We always come across enforcement that is completely inadequate in this country. How is enforcement done in Belize? Not all rangers have guns. Certain things cannot be funded just by one organization, but my multiple. If we have to pull together in this room to make that happen, it's a very important thing. We have different ideas about what a reasonable law would be.

Mrs. Roberson: Regional cultural impacts (people move into the area from different countries and are not afraid of the wildlife, they might eat them.)

Could we look at the way the Fisheries laws are. Mike might know about this. Fisheries law is wildlife protection law.

BTBWIB: The deer is ignored totally

Mrs. Roberson: If we could at least as a group look at the way they are hunted. I'm just advocating for a little green guy (iguana)

Dr. Tesecum: You all have been around a longer time before me. I work with the Belize Zoo, The Forest Department, but I think that when I was talking to Dr. Isabelle was that we were looking for avenues for help. We needed to get a medical response team for wildlife in Belize. A lot of groups are working against one another. If we could work around that and form this network, all these ideas will then be more valuable and send a proposal to the minister. If we can share the ideas with everyone, then it will have more values.

BKB: Thanks everyone: this is an opportunity: first time this is happening in Belize. I was involved in a lot of international animal organizations. I want to share a story: the aim was to save bears in Europe. The international group pressured the government to do something. Training animals is very important for that culture. They came up with solutions: make dancing bears, carve them, publish stories, etc. We need to

think about cultural sensitivity when amending laws. It's very easy to come from abroad and see things that you don't agree with. But we must remember that Belize is a young country. What were we like when we were 25 years old? Not doing as good as Belize. I think that things are getting there rather than criticize a lot more.

Ms. Colette: Who is going to pay? We don't have a car to pick up a criminal, dog, child, etc. I would just like to encourage, support, and be careful about the criticism.

Rebecca Foster with Panthera: We've been working with Belize Livestock Producers Association. Explain to farmers how they can increase their livestock production and prevent Jaguar attacks. I think the program is going to continue

Dr. Harmsen with Panthera : Mexico has become a main potential export market of the produce of the Belize Livestock Association.

Dr. Isabelle: Teaches classes to international students. These issues are nothing new. I've been in other countries and it's the same everywhere. We deal with the same issues. We still have opportunities because we have a lot of forest. Thanks to the Forest Department for wanting to send us a draft and get our feedback. We are taking little baby-steps to changing the world. I think that one of the crucial things to do is join our efforts and give The Forest Department our expertise.

Dr. Young: I think if we are missing the boat if we focus on legislation. Conservation is a luxury. If we don't improve the lives of the people, then you will always have problems. Legislation should not be the only thing; it shouldn't be the primary thing. We need to change the attitude of people!

Mr. Bart: We need to change opportunities for people

Dr. Young: Yes, it's a complex issue.

BTBWIB: It would be very helpful if the various NGOs can get together and pull resources. We have rehabilitated lots of wildlife. Let's share the resources

Mike Heusner: Sometimes visitors are concerned about petty things. Don't be afraid to put your ideas forward. I would encourage all the input from any source: local and foreign. Eventually what you want may not be what you're going to get. There was a movement a few years ago that produce some results.

We should try to encourage people in the government to be patriotic and to expose things that they don't like. These were brought to the public by whistle-blowers. They sent some information to the press to publicize it. Advice on how to improve our laws is most welcome.

Session ends at 5:06pm by Dr. Young.

🐾 When you leave here, please send in your comments, concerns, etc.

🐾 So now we come to the end and invite the Forest Department to give a closing remark

🐾 Thank you all for being here!

The Forest Department: “Thank you all for being here! I didn't expect this great turnout. Nothing happens overnight. Just this meeting here is a great step. For many years people wanted this to happen and now it finally did. Rasheda is inviting you all for your comments. This is another major step. As a part of networking, we are doing that. Cultural beliefs are a very sensitive topic. We must be careful how we handle that topic. I'm a natural born black-Belizean. My mother comes from a village. They rely very heavily on hunting. While growing up I took in some of the customs and did not know that it was illegal to hunt until I started working at the Forest Department, which was a few years ago! We cannot just take away something from someone and not give them something in place. Thanks to Dr. Isabelle and Mrs. Carole. Give yourselves a round of applause for being here. I'm looking forward to a very stimulating session tomorrow.”

Meeting ends at 5:11pm.