



# Nature's jottings

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Newsletter of the Natural History Society of Jamaica Feb/Mar.

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## **ACTIVITIES FOR APRIL 2006**

### **Seminar**

**TOPIC:** HISTORY/OVERVIEW OF THE COCONUT INDUSTRY AND THE PRESENT STATUS WITH LETHAL YELLOWING.

**PRESENTER:** BASIL BEEN FROM THE COCONUT INDUSTRY BOARD

**DATE:** THURSDAY APRIL 20, 2006 AT 5.30PM

**VENUE:** PCJ AUDITORIUM, TRAFALGAR ROAD.

### **FIELD TRIP**

**TO DISCOVERY BAY MARINE LAB. FOLLOWED BY BIRD WATCHING AND TOUR OF PROSPECT PLANTATION, OCHO RIOS**  
**DATE:** SATURDAY, APRIL 22, 2006 (EARTH DAY)

*From the Marine Lab. there will be a boat trip so take swimming gear and sun protection.*

*We shall leave Discovery Bay in time to reach Prospect by 2.00pm. To save time you should bring lunch with you.*

The visit to Prospect is a combined trip of the NHSJ and the Northern Jamaica Conservation Association (NJCA). We are grateful to Wendy Lee for arranging this visit and in lieu of the usual Prospect Plantation entrance fee the charge per person will be \$500 which at Wendy's request will benefit the Wildlife Care Fund of Seven Oaks Sanctuary for Wildlife in Runaway Bay. *Binoculars will be useful.*

All who wish to go should meet at the SRC, Old Hope Road at 8.00 a.m. for car pooling.

*Incidentally, when travelling through the Ocho Rios area look for the three murals of NJCA's Public Art Project. One on the wall of Ocho Rios High School (on left as you come out at the bottom of Fern Gully); one on the wall of Seow's Supercentre, south side of road, just past the 'Olde Market' as you drive eastwards on Main Street and the third high up on the wall of "Nuffa Variety" - the large new turquoise building on the west side of Evelyn Street, between the Clock Tower Square and the Police Station. Each has a 3' x 4' explanatory sign at ground level.*

### **BIRD LIFE JAMAICA notice of a birding field trip**

The place: Tulloch Estate, near Bog Walk

Date: Sunday, April 30, 2006

Time: 6:00 am / 7:30 am

**PLEASE NOTE THE FOLLOWING:**

**For those members in Kingston:**

Meeting place is the Shell Gas Station at Manor Park (the one on the left hand side going towards Stony Hill)

The time for meeting is 6:00 am.

The group will then drive to Tulloch Estate via the Sligoville route, which is deemed the most direct way.

**For those members out-of-Kingston:**

Mr. John Fletcher (President) will go ahead of the early group and meet you at 7:30am at the entrance to Tulloch Estates.

The suggested route is to go to Bog Walk, and then drive towards Sligoville, asking for directions to Tulloch Estates where you will be met by Mr. Fletcher.

## ***AGM REPORT***

Despite an otherwise lengthy meeting with the aid of technology and the unanimous selection of all officers what must have been the fastest ever election of an NHSJ Executive took place at the Tropical Learning Centre, Hope Zoo on Saturday March 25, 2006.

**The officers for the year 2005-2006 are:**

**Dr. Trevor Yee, President**

**Tracy Commock, Vice-president**

**Lisa Gordon, Secretary**

**Hermann Tobisch, Treasurer**

**Ordinary members: Clyve Bowen, Vashti Chatoor, Stephen Hodges, Andreas Oberli, Cecily Tobisch**

As usual Dr. George Proctor had no difficulty holding his audience fascinated during his address on Dolphin Head Mountain in Western Jamaica. He first started researching and collecting botanical specimens there in the 1950s and he shared some of his many exploits with us. He displayed specimens of some of its over 150 native plants, several of them endemic to Dolphin Head. Finally he urged the NHSJ to return to the area, which we last visited more than 10 years ago, when a group of citizens from the surroundings first developed a plan to have Dolphin Head declared a nature reserve. No urging was needed as we were all ready to leave straight away. It seems that now it might not be too long before the communities of the mountain derive some benefit as with Japanese assistance the over abundance of bamboo is being used to make very attractive furniture and the trail will attract tourists.

**Dr. Proctor issued a challenge to the NHSJ. The task being to take a census of all Lignum Vitae trees in the Corporate area.**

After lively discussion and election of officers Clyve Bowen showed a video of past field trips. We thank both him and Dr. Proctor for their contributions and also Annette Chin for welcome refreshments.

## ***MORE RECENT ACTIVITIES***

Our thanks to Dr. Tannice Hall for a glimpse into the world of aphids, which we discovered is by no means boring. Her presentation was held on Thursday February 25 at the PCJ Auditorium.

An account of the field trip on the following Saturday follows in Your Jottings.

### **NEPA has new CEO**

Dr. Leary Myers, formerly with the UWI Physics Department, has been appointed the new CEO of NEPA, as of March 2, 2006.

## Your Jottings

### Death of a Whale – letter from Trinidad

I'm so sorry to hear of the death of the whale. We here in Trinidad have our share of problems with whale deaths etc many related to pollution, oil etc. We had a marine mammal stranding workshop at the School of Vet Medicine, UWI last semester that was conducted mainly by overseas, primarily US, personnel. The workshop was coordinated by the vet school and the chiefs were Professor John E. Cooper, Prof of Vet Pathology in our faculty. He's from England and has worked extensively throughout the UK and Africa. Dr. V. Simmons of Toxicology was also involved in its coordination. The team flew in whales that died from various parts of the USA and Vets throughout the Caribbean were trained in post mortem techniques etc. It's a pity no Jamaican vets attended. I don't know how widely invitations were sent. If you wish for any help from the school I can enquire and see if they will be willing to assist. I can also provide the info for the team that consulted the veterinary training and I suppose the general coordinators of the workshop. Just let me know.

Nadin Thompson

Final Year Vet Student

SVM, UWI, TT

(Nadin acted as curator to the Zoo at Hope Gardens a few years ago)

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### A BAN ON FISH POTS?

I saw something quite disturbing on a dive recently that I thought I would share with you. It is not the first time I have seen these kinds of images, and I am sure others have in the past. (*This letter received by email was accompanied by a photograph showing French Angel fish and small parrot fish trapped in a fish pot at Lime Cay*)

As a marine biologist, it disturbs me.

**FISH POTS SHOULD BE BANNED!!!**

Other countries have done it, maybe Jamaica should also.

Nobody says that fixing our fishery problem should be easy, we have a BIG problem. Do you we have the guts to take a bold step?

Perhaps, we should aim to train fishers to make money from diving and snorkelling trips.

Rather than trapping this single beautiful fish for J\$350, why not take divers and snorkellers out to see it and other fishes for J\$2000 each (minimum) each day for the entire life of that fish and its subsequent generations.

Simple math...well at least to some of us.

Personally, I strongly believe that fish pots should be banned as they are very non-selective. You can alter the mesh size all you want, fish pots are causing a lot of damage.

Do you agree that fish pots should be banned?

Looking forward to your thoughts.

Dayne

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**NHSJ Field Trip February 25 2006 , by Yolanda Becker.**

A large group of about 40 people set out from the Sovereign Plaza going first to the LONGVILLE FISH FARM in Freetown, St. Catherine. We were hosted by the owner Mr. Donny Bunting and Jennifer, who took us on a tour and provided some interesting information about Tilapia farming and pond fish in general. Did you know, for instance that the fish you eat is most likely male, because males grow faster and bigger than female fish, and are therefore more economic for sales, and that the fish propagated are not the smartest and independent ones? Also, the farmed fish are vegetarian, being fed on pellets made from corn, soy beans and wheat middling.

The farm has two types of brood stock which they guard zealously: Jamaica Red and Red Mylanta. The fish display interesting parental care. Mating begins with the male fish digging a crater and dancing over it to attract the female. If she likes his dance, she joins him. As they gyrate vigorously, she lays eggs and he fertilizes them. She then sucks the fertilized eggs into her cheeks and flakes out, moving away. The fish grow there for two weeks, while she keeps quiet as she can't eat during this time. Then she spits out some which are called the fry, and keeps some in her cheeks to grow larger into what are called fingerlings because of their size.

The baby fish grow up in the nursery ponds for three months. They are caught and sorted by nets with different sized holes, and continue growing until ready for harvesting. At present there are about 50 acres of ponds of varying sizes and purposes, harvesting about 9 tons of fish per week. An average ¼ acre pond can have 15,000 to 30,000 fish depending on the degree of aeration provided by paddle wheel units which are electrically powered. Electricity is one of their major costs.

Processing begins when the fish are stunned by sudden immersion in ice water. There was unresolved discussion as to whether fish feel stress at this moment but not pain, as this would affect the extent of hormones released. Mammals feel pain, but do fish? Well we moved on to the gutting, and scaling, then sorting into three types for sales: fish with head (a specialty for the Jamaican household table) deboned fish and filleted fish. Washing is done with water from wells and springs, which are filtered through charcoal. Waste is used largely for fertilizer although of what I was not sure.

Farm predators include mongoose, herons, feral cats, and crocodiles as well as people. There was some discussion as to whether it may be time crocodiles are removed from our endangered list, as they have been reported as pests and a danger to people in low lying areas.

We also saw a flock of sheep passing, kept, we were told, as natural lawnmowers. In fact, Longville Park Farms has a large number of Barbados Black Bellied Sheep and were conducting breeding experiments to improve the size of their animals by crossing various breeds with a pure bred strain of rams from South Africa.

Longville is the second largest producer of Tilapia in Jamaica, in competition only with Jamaica Broilers. On an ecological note, we also observed that there was a fairly large number of Tilapias that had escaped, primarily the initially smaller females, into the river running through the property. Although it was mentioned that their numbers were controlled by a killer fish, we could not help wondering what controls there were to prevent either the killer fish or the escaped Tilapias entering the nearby Salt River system.

THE JADF BRAMPTON MARINE SHRIMP FARM

The group then visited the marine shrimp farm after the usual searching around to find the right location, which was on the plains south of Old Harbour. Sea water is pumped to the farm from the bay between Goat Island and Hellshire Hills. The soil in the region is too saline for crops, but good for mariculture. Mr. Noel Thompson, JADF's manager of their shrimp operations greeted us at the farm, took us to the nearby ponds and discussed their operations.

The present farm covers about 250 acres of land with 150 acres used for ponds. Approximately 55,000 lbs of shrimp are harvested per month. Larvae are imported from Key West in Florida. Most competition is from Belize whose government gives them land and incentives for farming; CARICOM also makes their prices attractive. JADF shrimp, however, are larger and more tasty – I enjoy them immensely! Their commercial outlet is Caribbean Mari-Culture on Ruthven Road.

The Society had previously visited the JADF shrimp farm approx. 5 – 6 years ago. At that time the operations was only 20 acres and a hatchery to provide shrimp post-larvae for the farm was operated by UWI at Port Royal. Since that time, the operations have outgrown the capabilities of the hatchery and post-larvae are obtained from Florida. There are plans for an increased operation of a farm of 2,000 acres, which unfortunately is larger than the present location, and plans for the acquisition of post-larvae from the US/Taiwanese shrimp operations in Clarendon, which would afford a local sourcing of shrimp post-larvae. Since our last visit, a sizeable office and operations building has also been constructed on the farms.

Marine shrimp are apparently more popular than fresh water shrimp as their heads are smaller in size. Growth covers a period of 5 – 7 months. For harvesting the pond level is lowered and a mount in the middle with a light attracts the shrimp. This is done at nights when electricity costs are less. Approximately 2 M dollars per month is paid for electricity. JPS must be happy for fish and shrimp farming. Shrimp are washed, graded and packed in ice: 11lb ice to 11lb shrimp, as they are sold fresh and not frozen. There are three grades: with head, deheaded and deveined. Discarded heads present a problem with much of them now going to Bowden for animal feed. Crocodiles present a problem as with most pond areas in Jamaica.

Unlike the widespread nettings observed at the Longville Park Fish Farm, no such nettings were required for protection against predation by birds. Shrimps being bottom dwellers live at the bottom of the ponds, and some 90% of them are harvested in the final 10% of the pond when drained.

#### SEA ISLAND COTTON

Our final stop was at JADF Sea Island Cotton farm not too far from the Shrimp farm. The species of cotton grown, *Gossypium barbadense* (Malvaceae) is native to South America and the West Indies. Because of its very long fibres of up to 2 ins. in length, the woven cloth is of superior quality to regular grades of cotton, and garments made from this cotton fetch premium prices.

Despite it being a hot, dry area the cotton bushes in their long, neat rows were flourishing with bright, fresh green leaves and cream flowers, which mature pink and never fully open, similar to some other species of hibiscus. They could have been elegant ornamentals, an 100 acre ocean of lush bright green foliage in an otherwise dry countryside. They were kept this way by a complex overhead irrigation system, fed from underground wells. The pods from which the cotton protecting the seeds, bursts are slightly flattened ovals, almost the size of the flowers and are sheathed by sepals. Each bush is about a metre high during the bearing period, after which it is cut back, although after 3 years each plant is removed and a new seedling planted. We were advised that the seeds were conserved after the ginning process and the seeds kept to provide new seedlings for replanting. It was found that the yields from new seedlings were greater than that from the pruned previously harvested plants, one reason being that the pruned plants tended to grow horizontally instead of upright and made harvesting more difficult.

#### **Copal and Elemi Incense Ceremony by Dr. Trevor Yee**

In the afternoon of Thursday Feb.9, a group of approx. 12 NHSJ members and friends (aka the NHSJ time wasters), essentially the group that had visited the Cockpit Country in September last year, met to conduct a Copal and Elemi incense get-together. The get-together was held appropriately on the lawns of the

Archaeology Laboratory, which was the old Book keeper's Cottage, the only building remaining intact from the days of the old Mona sugar estate.

Philip Allsworth-Jones, from the UWI Archaeology Section of the Dept. of History, had bought some Copal in a market in Mexico, a tree gum primarily from *Bursera glabrifolia* (Burseraceae), that was used by the Mayans and possibly other Amerindians as an incense. Copal is a widely used name for such Burseraceae gums, used as incense, and even the gum from another genus of the family, *Protium*, also bears the same name. In the literature, mention was also made that one of our native species, *B. simaruba*, the Red Birch, was another tree from which a gum was extracted for use as incense; the name given to this gum being Elemi, confusingly a name that is also used for gums from a number of other species. Our obtaining of these plant gums was the reason for the get-together to see what they smelt like and to compare the two aromas.

In attempting to duplicate as authentic a setting as possible, one of the group brought a drinking cup made from a Calabash, *Cresencia cujute* (Bignoniaceae), and we enjoyed an authentic Amerindian drink, anachronistically but deliciously prepared as in rural Jamaica, Cocoa, *Theobroma cacao* (Streuliaceae). It was prepared with its naturally contained Cocoa Butter and with Cinnamon. Other "spirits" consumed was Macou Cherie, a rum distilled in Dominica, where a remnant group of the Carib Indians lives, and the potent local "John Crow Batty" seeped as on the sugar estates, over peeled Ginger.

The group was also treated to some authentic Amerindian music, and Inca flute music from Peru. There was an attempt to obtain Garifuna music from Central America, the origin of the Garifunas making interesting History, and the get-together also heard Parang music from Trinidad, although not Amerindian, it was suitably foreign, and was thrown in for good measure. Alas, we did not have any of even the slightest semblance of authentic Taino fare, we thought of bammy and fish, but settled for cake and biscuits.

Another notable lack was concluded to have been a group of Taino maidens in grass skirts, although we had a number of potentially suitable candidates.

While we were enjoying the conversation and our cake and "spirits", we could discern the aromas of the two gums. A group of us concluded that "our" Elemi with its resinous turpentine/pinene/thujone aroma was much more preferable to "their" Copal with its more pungent, musty aroma. All participants, I think, would agree that we all had an enjoyable time.

### **Membership fees**

Membership fees for NHSJ are now due with the start of the new year of activities. These are: \$500 for regular members, \$750 for families, \$5,000 for life membership, and \$300 for students and pensioners/retirees. The fees can be mailed to the Society or paid to the Treasurer or to other members of the executive for the attention of the Treasurer.

*Prepared by Jill Byles 8/4/06*