

JAMES RENNIE BEQUEST

REPORT ON EXPEDITION/PROJECT/CONFERENCE

Expedition/Project/Conference Title: Operation Wallacea, 2004

Travel Dates: 9th July – 6th September.

Location: Cusuco National Park, Honduras, Central America.

Group Member(s): Sharon Hodge

Aims: To learn vital fieldwork skills and experience life as a research scientist in a rainforest situation. In addition, to continue the survey work and push for a better management strategy in Cusuco National Park, Honduras. Basically, to gain field experience whilst conserving an amazing cloud forest which is under threat from human activities.

OUTCOME (not less than 300 words):-

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James Rennie Bequest Report 2004



Sharon Hodge

Introduction

In 2003 I volunteered with Operation Wallacea on an expedition to the Cusuco National Park in Honduras (Figure 1) as part of the small mammal team. It was the first year of an eight-year agreement to provide data to help with the management of this area of cloud forest in the Merendon Mountain Range. I was eager to return in 2004 to carry on with the work we had begun and joined Operation Wallacea as the Edinburgh University Fundraising Group Leader. Our fundraising commenced and after a relatively successful speed-dating night, successful fund applications, general donations and employment we were all off on our own adventures. Before I left the UK I was offered the position of Assistant Small Mammal Scientist in return for a couple of extra weeks in the forest and was delighted to accept. I departed for Honduras on the 9th July 2004.

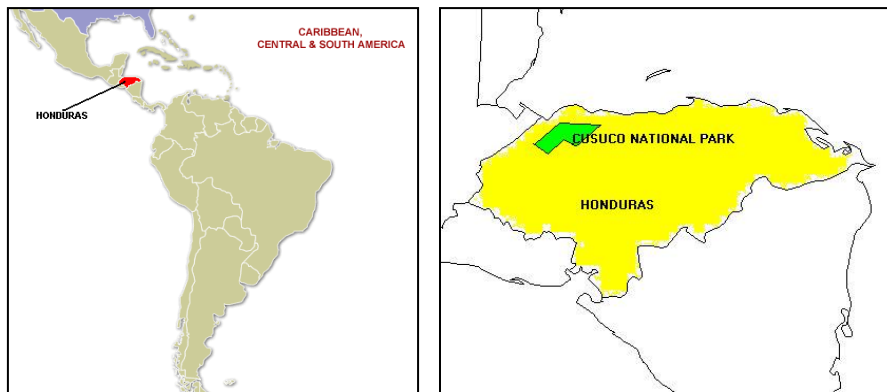


FIGURE 1: Maps showing the geographical positions of Honduras and Cusuco National Park.

Cusuco National Park

Cusuco National Park covers an area of 23000 hectares; only 7690ha of this is the designated core zone. The core zone is mostly undamaged and is a large enough pristine area to support even top predators such as jaguar and puma. The core zone though is under threats from incursions by surrounding communities to clear land for coffee plantations, illegal logging and poaching. There are currently only 5 guards across the whole Park and so few visitors per year to the Park that the income generated is only \$1300.

The intention in the Cusuco National Park was to work with the Hector Rodriguez Pastor Fasquelle Foundation, which had been managing the National Park since 1990. However, in January 2004 the Park was reclaimed by COHDEFOR (the Honduran Forestry Department responsible for conservation) and they have appointed consultants to investigate the best way of managing the Park. The Fasquelle Foundation is proposing that it retains the research, ecotourism development and community development aspects of the Park management, whilst other organisations are currently competing for the other aspects of the Park management. Given this temporary management arrangement, it was decided

in March 2004 that Operation Wallacea would directly operate the Cusuco National Park biodiversity, socio-economic and forest structure surveys for the 2004 season and that by September 2004, COHDEFOR would have confirmed the long-term in country organisation to help develop this research and management programme with Operation Wallacea.

The data from the Operation Wallacea research teams is being used by the University of Nottingham and COHDEFOR (the Honduran forestry department) to apply for a \$1 million grant from the Global Environmental Facility to provide temporary funding for the re-instatement of the patrols, develop a long-term monitoring programme for the Park to assess the success of the management programme and to develop the field courses for local university and schools training courses.

Operation Wallacea operates three camps in the park, two in the core zone and a third at Buenos Aires - a village in the buffer zone. Base Camp is located at the park's visitor centre in the core zone, at an altitude of 1700m. The third camp, Guanales, is situated in undisturbed primary forest a 2-hour trek from Base Camp.

Small Mammal Trapping in Guanales

I was based in Guanales for my time in the forest, sleeping in hammocks and washing in the waterfall. It was exciting to be living in such a pristine area of forest although a few home comforts were missed, such as a sofa or toilet seat! We trekked out to the camp each Sunday with the supplies for the week and returned to Base Camp on the Friday morning, allowing us a full five days working in the forest.



PHOTO 1: Sleeping in hammocks was fun, except during a massive thunderstorm. (Sharon Hodge, 2003)

Aim

To investigate the diversity and abundance of forest floor small mammals in this undisturbed forest area. There were similar studies being carried out in the two other camps and therefore comparisons could be made between them.

Methods

A grid system was used so as to be able to collect mark and recapture data. The grids were 42m x 42m and consisted of 49 traps, each 7m from each other. The small mammal traps were baited using Granola (a cereal based foodstuff) in the afternoons and then checked in the mornings to ensure the animals did not get dehydrated. Most small mammals are nocturnal and therefore the traps were closed during the day and open at night. Shelters were erected over each trap to reduce the percentage closed by rain and to protect the trapped animal overnight, photo 2.



PHOTO 2: Baiting the small mammal traps
(Roger Lennard, 2004)

When a mouse had been captured it was removed from the trap by shaking it gently into a plastic bag, the weight of the animal was taken whilst still in the bag. Then, using leather gloves, the mouse was picked up by the scruff of the neck and certain measurements/observations were taken. These included sex, reproductive status, head-body length, ear length, forearm length, hind-leg length and tail length.



PHOTO 3: A Forest spiny pocket mouse (Sharon Hodge, 2003)

Species List

- Forest spiny pocket mouse (*Heteromys desmarestianus*)
- Mexican deer mouse (*Peromyscus mexicanus*)
- Alston's singing mouse (*Scotinomys teguina*)
- Alfaro's rice rat (*Oryzomys alfaroi* group)
- Mexican mouse opossum (*Marmosa mexicana*)
- Common opossum (*Dipelphis marsupialis*)

Discussion

On comparison with data from the other sites, it was found that there was a greater abundance and diversity of the small mammals in the undisturbed areas than the disturbed areas. This leads to strong evidence for the need to conserve the core area of the park and to reduce illegal activities in both the core and buffer zones. These findings are to be followed up with a full study of both areas in 2005.

For more information, please go to www.opwall.com