

RGS-IBG Field Research Programmes

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● Brunei Rainforest Project ● 1991-1992

A 14-month expedition to survey the undisturbed lowland primary rainforests of the Batu Apoi Forest Reserve, Temburong District, Brunei Darussalam; to explore the complex ecology of the environment and to develop the base-line research and teaching facilities for the new field centre.

Joint project between the University of Brunei Darussalam (UBD) and the Royal Geographical Society (RGS) to establish a permanent field studies centre for rainforest research.

Patron: HRH The Prince of Wales

Approved and supported by His Majesty the Sultan
and Yang Di-Pertuan of Brunei

Joint Leaders: The Earl of Cranbrook
Dr. David S. Edwards, Universiti Brunei Darussalam

Field Manager: Aw. Samhan bin Nyawa;
Administrator: Ms. Catriona Prebble

121 project members Duration: February 1991 - March 1992

The Royal Geographical Society was invited by the Universiti Brunei Darussalam to assist in the establishment of a permanent field studies centre and, through the running of a 14-month expedition, to provide base information about the area and to prepare the centre for its long-term use by schools and students as well as future research scientists.

The chosen site for the field centre is located just inside the border of the 48,000 hectare Batu Apoi Forest Reserve of Temburong District, situated on the Sungai Belalong close to its confluence with Sungai Temburong. The expedition research area covered approximately one fifth of the reserve and comprised largely pristine dipterocarp lowland forest, with Bukit

Belalong at 2995ft being the highest point. The terrain is steep and deeply dissected by tributaries of the major rivers. There is no permanent settlement, apart from the field centre, within the reserve, although people from the local area have traditionally used the area for hunting and fishing.

With a large proportion of Borneo's tropical forests being decimated for the timber trade by Brunei's geographical neighbours, this conservation initiative was seen to be particularly important and in recognition, on World Forestry Day in March 1991, the Forestry Department in Brunei declared that the Batu Apoi Forest Reserve would be raised in status to that of a National Park,

which has further ensured its long-term protection.

A committee was set up to direct the scientific programme of the project and to ensure that a broad spectrum of interests was represented. Over 90 scientists and field assistants participated in the expedition, spending varying lengths of time in the field and covering an assortment of botanical, zoological and geomorphological studies, all contributing to the background information about the research area being gathered to form a database for future visitors to build upon.

Members from the Biology Department of the University visited the field centre regularly at weekends, while other members from overseas, representing Denmark, Germany, Canada, USA, Australia, Fiji and Malaysia as well as Brunei and UK, spent weeks or months at the centre, including 5 UK PhD students who were based at Kuala Belalong for the duration of the project.

The geographical aspect focussed on the water systems and geomorphological activity: in such steep terrain, landslides are particularly significant. Two automatic weather stations were loaned to the Project by NERC to assist in these investigations, and these were also important to the studies of botanical altitudinal zonation. One AWS was situated at the confluence of the Temburong and Belalong rivers and the other on the summit of Bukit Belalong. Four botanical plots were laid out, two with an inventory produced of all trees exceeding 10cm and a further two listing the herbaceous plants. In addition, an ethnobotanical study was made, with assistance from local 'bomos' or medicine men from a number of the nearby native longhouses, who were able to point out forest flora with particular healing properties.

A general mammal survey was carried out during the year and ornithological recordings made on a monthly basis. A variety of specific studies were made of particular animals, e.g. stalk-eyed flies, bees, spiders, termites, frogs, bark beetles as well as the river fauna.

By the end of the expedition, a comprehensive system of trails had been laid through the research area and several sub-camps established to provide overnight shelter. A Geographical Information System (GIS) was set up to provide accurate mapping of scientific data and this too will remain for future scientists to add to.

Since March 92, a schools programme has been set up to allow groups of 'O' level students from Brunei to benefit from 4-day field courses at Kuala Belalong and it is anticipated that similar arrangements will be available for both 'A' level and university pupils.

Major sponsors included:

Royal Brunei Airlines, The Baring Foundation, DICAM, GreenCard Trust, Hongkong Bank, Morgan Grenfell, Nomura-NIMCO, British Council, Dulverton Trust, Esmee Fairbairn Charitable Trust, Leverhulme Trust, Lok Wan Tho Memorial Foundation, Natural Environment Research Council, Natural History Museum and the Royal Botanic Gardens Kew.

Bursaries:

Inchcape Charitable Trust Fund, Lloyds Bank Charitable Trust, Peat Marwick McLintock, Standard Chartered Bank and Vosper Thornycroft.

Further reading:

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