

## **Project Update: December 2006**

This project intended to survey the distribution of native frogs of the New Georgian Islands. And to make note of ecological information that may assist in achieving conservation outcomes in this fragile part of Solomon Islands and east Melanesia.

### **Narrative**

The Solomon Islands is one of the richest areas in terms of biodiversity in the South Pacific. Second only to the island of New Guinea in biodiversity, the Solomon Islands have many species that are endemic and many more still little known or unknown to science.

The frogs of the Solomon Islands are some of the vertebrates little studied, and with inadequate information on their general distribution and ecology.

RSG funded a rapid inventory of 6 islands in the Western Province of Solomon Islands, the New Georgian Islands, to investigate the distribution, habitat preference, and conservation status on the native frogs of this little-known corner of east Melanesia.

Field studies were carried out on four main islands in the New Georgian chain of islands. Namely the islands of Gatokae, Vangunu, Tetepare, and Kolombangara were visited this year. A rapid inventory of frogs was done during this time. Visual consensus was the method used.

The following preliminary results have been collected.

### **Vangunu Island**

#### Site 1

Surveys in secondary forest on North Vangunu were completed. Forest where dominated by *Calophyllum* sp, *Litsea* sp., *Camptosperma*, *Myristica*, *Canarium* sp, and *Syzygium* sp. Shrubs in the forests understorey included *Sedge*, *Asplenium* sp. (birds' nest), *Areca* sp., and native gingers. Forest is lowland rainforest.

Some native frog species were sighted here. These included a *Platymantis* sp. And two endemics of Solomon Islands *Platymantis weberi*, and *Platymantis solomonis*.

#### Site 2

A survey of Arrapita forests along the Sungai strea, (S08°32.116'; E158°04.730') on North Vangunu was carried out. Elevation 117.9m.

Dominant plant groups in the area included, palms and *Heliconia* sp. Emergent trees included *Vitex*, *Terminalia*, *Dillenia*, and *Ficus*. Other plants included palms, *Colcassia*, Ferns such as *Calamus*, climbers, *Selagenella*, *Asplenium*, *Dendrobium* orchids, and *Areca*. The middle storey is composed of *Calophyllum*, *Terminalia*, *Myristica*, etc.

In 3-man hours an abundance of frogs were collected and photographed. These include minute native species such as *Brachylodes elegans*. Other species included the two endemics *Platymantis solomonis*, *P. weberi* and *P. guppyii*. The latter is Solomon's largest tree frog. Large frogs include *Discodeles malukuna*.

### Site 3

A survey of the Lagheba River was also carried out. Aquatic plants frog in stream and riverbanks. Ferns abundant along the river. Forest is mainly secondary forest.

Solomon's largest frog *Discodeles guppyii* was caught here. These frogs are abundant here. Other frogs included *Platymantis solomonis*, *P. weberi*, *P. guppyii*, and *Brachylodes elegans*.

### **Conservation Imperative**

The forests of Solomon Islands each year are felled due to large scale and unsustainable logging. Many species of frogs are still yet to be identified and remain to be discovered. Hence the importance and challenge of translating these results and similar studies into conservation outcomes that are will both protect the long-term health of the rainforests and the indigenous communities who depend on their wellbeing.

On this initial survey a probable new species was discovered in montane forests of Gatokae Island. This was confirmed after visual identification by Dr Rafe Brown (Kansas University) and Steve Richards (South Australian Museum).

### **Conservation Outcome**

A field guide to the frogs of the Solomon Island is being written frog results of this survey along with a previous survey of frogs on Choiseul Island. Further taxonomic work is needed and collections on other islands such as Guadalcanal, Santa Isabel and Makira Island in eastern Solomon Islands.

RSG has provide initial funding to complete the rest of this study.