

*Baseline Floral and Faunal Survey of The Waisali Reserve,  
Cakaudrove, Vanua Levu, Fiji Islands, 2<sup>nd</sup>-6<sup>th</sup> March, 2004*



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## **SUMMARY**

*At the request of the National Trust of Fiji an eight-member team conducted a baseline flora and fauna survey of the Waisali Reserve from 2nd-7th March 2004. The team members were from the South Pacific Regional Herbarium (SPRH), The National Trust of Fiji (NT) and Nakavu Village. They were joined by several guides from Waisali Village. The purpose of the survey was to provide the National Trust of Fiji with a thorough update of the status of biodiversity in the Waisali Reserve.*

*A range of terrestrial fauna and flora classes were surveyed during the trip including birds, fish, mammals, reptiles and amphibians, and various flora groups. Several endangered and many endemic species were found on the trip. The most significant fauna discovery was that of the Fiji ground frog (*Platymantis vitianus*) previously thought to be extirpated from Vanua Levu. The most significant flora discoveries were that of good populations of *Agathis macrophylls* (listed as Vulnerable under IUCN), *Begonia vitiensis* and *Tectaria tripartita*.*

The overall vegetation type for the Waisali Reserve is a tropical lowland rainforest. Four forest types were observed within this vegetation type including i) the ridge top/flat forest type, (ii) the slope forest type, (iii) the riparian forest type and (iv) the stunted ridgetop forest type. Not all plant specimens collected have been identified. So far 233 plant taxa were identified. Fern and fern allies represent 20% of the flora; gymnosperms represent 3%; dicots represent 65%; and monocots represent 23% of the flora. Plants that were native comprise 97% (206 species) of the flora out of which 49% (105 species) were endemic and 47% (101 species) indigenous. The remaining 4% (7 species) are naturalized and adventive species with most having the potential to become invasive. The largest family, Orchidaceae, comprises 15% of the flora followed by Rubiaceae, which contributes 7% to the flora.

*Seven herpetofauna species were found during the survey. Four of these species, 2 frogs (*Platymantis vitianus* and *P. vitiensis*) and 2 skinks (*Emoia mokosariniveikau* and *E. concolor*), are endemic to Fiji. Waisali is the only known site on mainland Fiji (Viti Levu and Vanua Levu) where the Fiji ground frog (*P. vitianus*) is found. It is also the only known site with all three amphibian species co-occurring. With the exception of the Fiji tree frog (*Platymantis vitiensis*),*

*the abundance of these species in the area is relatively low when compared to other areas within Fiji.*

A total of 7 finfish species from 6 genera and 3 families were collected during this survey. Other species were found including one species of eel, two species of prawns and a species of fresh snail. Four native gobies were observed and collected. The other native species includes the *Eleotrid*, *Kuhlia*, *Anguilla*, prawns and snails.

*A total of 21 bird species was recorded from the Waisali Reserve between the 2<sup>nd</sup> and 5<sup>th</sup> of March 2004. All were native species and there was no exotic species recorded. Thirteen of the 21 bird species are endemic to Fiji. During the period of the survey the most commonly encountered birds were the Barking Pigeon, the Fiji White Eye, the Red Shining Parrot, the Fiji Bush Warbler, Wattled Honeyeater and the Orange Dove.*

*The very high diversity and more so the high incidence of endemic species makes the Waisali Reserve one of the few managed parks in Fiji with a unique and important floral and faunal composition. This is further enhanced with that the forest is still pristine. Several management recommendations are made to aid the conservation of the biodiversity in Waisali.*

## ACKNOWLEDGMENTS

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***Vinaka Vaka Levu***

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