

Our backyard biodiversity

Not forgetting the cool spots

text and photographs by Patrick Pikacha



habitation. You may be surprised to find some pretty neat animals closer to home than you think!

So what surprises maybe found in our backyards you may wonder? Really this depends on a few factors, such as the habitat

And yes, very close to Honiara city. Reed warblers nest in reeds in a pretty degraded swamp area. Below the reeds in the swamp are crocodiles. I've spotlighted at least 7 large crocodiles on average on a given night here. Frogs are also abundant in this marshland, especially *Rana krefftii* and *Litoria thesaurensis*. I have also seen *Platymantis* sp. frogs on the south side of the creek in forest edges. The individual I spotlighted one night was yellow, and unlike the common endemics *Platymantis weberi*, and *P. solomonis*. The grasslands above Honiara also hide many secretive birds like the rare and little known button quail endemic to Guadalcanal.

type whether rainforest or grasslands or dry forests, level of disturbance, presence of invasive species, level of human presence, etc.

In 2007 in a little swampland near Honiara, while making a checklist of birds in the area, I happened to stumble across a little known reed warbler (*Acrocephalus* sp.). To my surprise there as not only one bird seen that day, but six.

In fact, there is a resident population of these little known birds on Guadalcanal.

But back to our reed warbler. I've observed these reed warblers early in the mornings feed on invertebrates such as grasshoppers, small butterflies, and many other insects found in grasslands and in nearby secondary forests. Nothing is known of their population, or of their ecology. Nesting is done in tall reeds that grown in the middle of the creek and not in surrounding grasslands. But many birds do hunt in the grasslands only crossing roads and paddocks to dart back in the tall reeds in the swamps centre when threatened.

This population of reed warblers that inhabit these swamp areas are under threat today. Development such as housing estates, and squatter settlements are encroaching around the swamplands. There is also threats from invasive species especially from cats and rats. Humans fish for tilapia in the swamplands and disturbance is steadily increasing.

Specimens of this bird were collected in 2008 and sent to the American Museum of Natural History in New York for further genetic analysis.



Reed warbler (*Acrocephalus* sp.) (top) found in the swamps of Betikama (left) in Honiara's backyard.

Photo by Baravi Thaman

Two Endemic, Rare and Possibly Endangered Stick Insects from the Nakauvadra Ranges, Viti Levu, Fiji Islands.

by Hilda Waqa-Sokiti

The Nakauvadra mountains are located on the northern side of Viti Levu and south of Rakiraki, Fiji. The Nakauvadra ranges run parallel to the coast about 7km inland with the highest elevation reaching 866m a.s.l. The range comprises of andesitic rocks and formed from the eroded rim of the large Rakiraki volcano.

A 10 day biodiversity survey within the Nakauvadra ranges was conducted. In fact, no entomological survey has been previously conducted or recorded from this area. This survey presented a significant discovery of two stick insects known to be very rare and endemic to the Fiji islands: *Nisyrys spinulosus* (syn. *Cotylosoma*) and *Phasmotaenia inermis* (syn. *Hermarchus*) with virtually nothing else known about them. The isolation of the forest system, hence the insect fauna, due to the high mountain ranges separating it from neighboring forest systems and grasslands, explains much of the uniqueness and great diversity of insects from Nakauvadra.

Unique entomological finds from Nakauvadra were mainly from the order Phasmatodea commonly known as the stick insects and 'ucikau' in Fijian which literally means resembling a stick. One in particular is the female of *Nisyrys spinulosus* (syn. *Cotylosoma*). This species was first described in 1877. Interestingly, nothing is known about *N. spinulosus* except that it is endemic to the Fiji islands and distributions are also unknown. This find would be a first record for the Nakauvadra ranges. The significance of this phasmid is its amazing body shape (i.e. cupped body, thought to have enabled it to cling to the side of rocks), thus when a species belonging to the same genus (*Cotylosoma dipneusticum*) was first described from a specimen at the Natural History Museum in London, it was described as being semi-aquatic (i.e. having the capacity for dual breathing system in both water and land). However, this was later confirmed to be false and considered a myth. This particular stick insect was found well



The Nakauvadra ranges (top) run parallel to the coast about 7km inland with the highest elevation reaching 866m a.s.l. Two new species of stick insects *Nisyrys spinulosus* (above insert), and *Phasmotaenia inermis* (above) from the Nakauvadra ranges.

camouflaged to the bark of the native dakua tree (*Agathis macrophylla*) having approximately 30cm dbh covered with lichens.

Another unique find was a female of *Phasmotaenia inermis* (syn. *Hermarchus*) first described in 1908. This species is an island endemic to Viti Levu and so far only been recorded from Korovou, Baulevu and Nadarivatu, thus this is also a first record from the Nakauvadra ranges. Also, virtually nothing is known about this species.

These rare, endemic and possibly endangered stick insects should be monitored further to ascertain population numbers, local distribution patterns and seasonality patterns in order to aid in the development of appropriate conservation and protection strategies before these species are lost to the future generations of the Nakauvadra people.

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