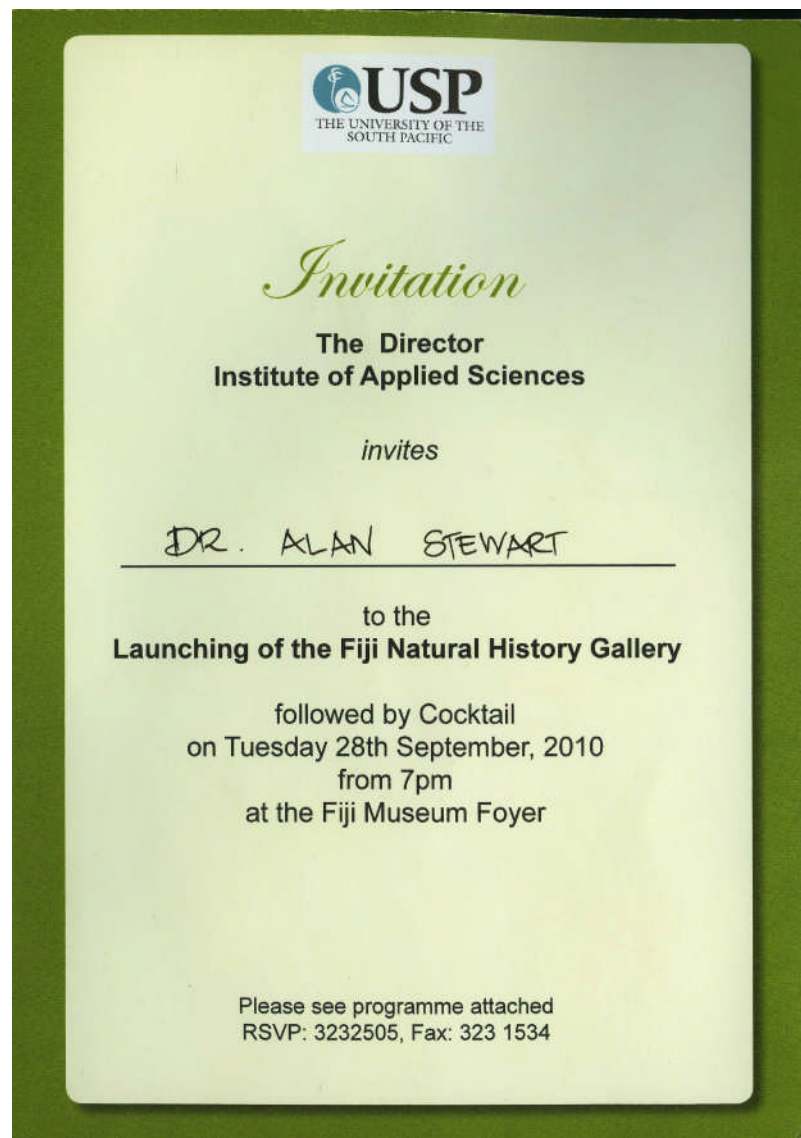


## Annex 9: Launch of Natural History Gallery, Fiji Museum, Suva



## **Fiji's Natural History Gallery Launch- Invitees List**

1. **Mr Mac Mclachlan** - British High Commissioner
2. **Prof. Rajesh Chandra** - Vice Chancellor, USP; and spouse
3. **Dr Esther Williams** - Acting Vice-Chancellor, USP
4. **Dr Michael Gregory** - Pro Vice Chancellor for Planning and Quality, USP
5. **Professor Susan A Kelly** - Deputy Vice Chancellor  
(Learning, Teaching and Student Services), USP; and daughter
6. **Professor Patrick Nunn** - Geography Lecturer, USP
7. **Dr Anjeela Jokhan** - Dean of FSTE, USP
8. **Dr Jito Vanualailai** - Associate Dean Research, FSTE, USP
9. **Dr Bibhya Sharma** - Associate Dean Teaching, FSTE, USP
10. **Dr Anand P Tyagi** - Associate Professor and Head of Biology, FSTE, USP
11. **Dr Simon Hodge** - Lecturer, Division of Biology, FSTE, USP
12. **Dr Gilliane Brodie** - Senior Lecturer, Division of Biology, FSTE, USP
13. **Professor Randy Thaman** - Head of School, Geography, FSTE, USP
14. **Dr Joeli Veitayaki** - Associate Professor, Division of Marine Studies, USP
15. **Mr Johnson Seeto** – Curator, Division of Marine Studies, USP
16. **Mr Ed Lovell** - Lecturer, Division of Marine Studies MSP, USP
17. **Professor Bill Aalbersberg** – Director, Institute of Applied Sciences, USP
18. **Mr Usaia Dolodolotawake** - Lab Manager, Analytical Unit, IAS, USP
19. **Dr Bale Tamata** – Fellow, Environment Unit, IAS, USP
20. **Mrs Mereoni Gonelevu** - Quality Control Coordinator, Quality Control Unit, IAS
21. **Mr. Mason Smith** - Permanent Secretary, Agriculture
22. **Mrs Miliakere Nawaikula** – Director, Koronivia Research Station
23. **Mrs Sanjana Lal** - Principal Silviculturist,
24. **Mr Inoke Wainiqolo** - Conservator Forest
25. **Mr Viliame Naupoto** - Permanent Secretary, Department of Fisheries and Forests
26. **Mr Sanaila Naqali** - Director, Fisheries Department
27. **Mr Peni Davetanivalu** - Director, Department of Environment
28. **Mrs Eleni Tokaduadua** - Principal Environment Officer, Department Of Environment
29. **Mr Taholo Kami** - Director, IUCN
30. **Dr. Milika N. Sobey** - Water Programme Coordinator, IUCN
31. **Mr Don Stewart** – Director, Birdlife International
32. **Mr Sefanaia Nawadra** - Director, Conservation International Fiji Programme
33. **Dr Dick Watling** - Director, Nature Fiji Mareqeti Viti and spouse
34. **Miss Nunia Thomas** - Conservation Coordinator Nature Fiji Mareqeti Viti
35. **Mrs Kesaia Tabunakawai** - Director, WWF SPPO
36. **Dr Stacy Jupiter** - Director, WCS
37. **Dr Mary Taylor** - SPC, Narere
38. **Mr Aaron Jenkins** - Senior Programme Officer, Wetlands International

40. **Mrs Elizabeth Erasito** – Director, National Trust for Fiji
41. **Dr. Robin Yarrow** - Council Vice Chairman, National Trust for Fiji
42. **Mr. Ikbal Jannif** - Chairman Fiji Museum
43. **Mr Radike Qereqeretabua** - Council Chairman, National Trust for Fiji
44. **Mr. Jo Sania** - Deputy Permanent Secretary
45. **Ms. Sera Nicholls** - Town Clerk, Suva City Council
46. **Mr. Peni Cavuilagi** - Director Dept. of National Heritage, Culture and Arts
47. **Mr. Kalivati Ratucicivi** - Director, Dept. of Lands
48. **Dr. Alan Stewart**- University of Sussex, UK
49. **Dr. Mika Peck**- University of Sussex, UK
50. **Prof. Pete Lockhart**- Massey University, New Zealand
51. **Mr. Waisea Votadroka**- IAS, USP
52. **Mrs. Mere Goundar**- Biology Division, USP
53. **Mr. Ron Vave**- IAS, USP

**Other Attendees include:**

Two visiting senior consultants from Queensland University, Australia

Ten support staff from IAS, USP (Graduate assistants and senior staff)

Five staff from the Fiji Museum

Three staff from Fiji National Trust

Six staff from NatureFiji- MareqetiViti (Local NGO)

Three staff from Conservational International, Fiji

Five staff from Department of Forestry- Research Division

Two staff from Wetland International (Fiji)

*Remarks by the British High Commissioner, H.E. Malcolm Mclachlan, at the  
Launch of the Fiji Museum's Natural History Gallery  
Tuesday 28 September, 2010 – Fiji Museum, Thurston Gardens, Suva.*

**Ladies and Gentlemen:**

It is an honour to have been invited to launch the Natural History Gallery celebrating Fiji's broad and wonderful biodiversity at the Fiji Museum this evening.

I know that this is the culmination of several years' hard work and endeavour, which has involved a constructive partnership between the University of Sussex and the University of the South Pacific. More importantly, the project has developed capacity in this important area, and in particular I would commend the hard work and dedication shown by Hilda Waqa, who has become a foremost expert in Fiji's biodiversity as a result. It is good too to be in the presence of Bill Aalbersberg and Simon Hodge from USP and Alan Stewart from Sussex University – all critical to the project's success.

The Darwin initiative, which has made this partnership possible, assists countries that are rich in biodiversity but are less advanced in its classification and protection, to attain skills which will help to preserve it. The initiative has so far invested over £80 million in 728 projects in 156 countries since 1992.

The project we are celebrating this evening began in 2006 and has culminated this year – which is auspicious, as 2010 is the international year of biodiversity. 2010 is dedicated to raising awareness of the importance of biodiversity through activities and events in many countries, with the objective of putting its importance closer to the top of the political agenda.

Why should we worry about biodiversity? Most of us have a limited grasp of the answer to that question. We watch the geckos on our ceilings, and get a mild sense of satisfaction as they munch on the mosquitoes which would otherwise be munching on us. We observe the occasional mongoose scurrying across the road and recall vaguely that he was probably introduced to deal with rats and snakes in the cane fields, a task which he has admittedly achieved with flying colours, along with the unintended reduction of the vast majority of Fiji's ground-nesting birds.

Most of us miss the depth of the biodiversity within the ecosystems in which we go about our daily lives. I for one, am keen to get a glimpse tonight of the giant long-horned beetle – the equivalent to the second row forward of the beetle world - making his debut tonight, and to seeing some of the other endemic marine and terrestrial examples here on display. This is all part of the Fiji that we would not otherwise necessarily experience.

But the reason why the protection of biodiversity is so important is more than just for our own awareness or aesthetic pleasure. Imagine the opportunity cost to humanity of dramatic changes to our biodiversity. Think about the role biodiversity has in purifying our air and our water. How it prevents the erosion of our land, which enables us to plant and nurture our crops. How it contributes to our medicines and our sustenance.

Think about how much science has learned from the observation of nature. At least 50% of the pharmaceutical compounds on the US market today are derived from compounds found in plants, animals, and microorganisms, while about 80% of the world population depends on medicines from nature (used in either modern or traditional medical practice) for primary healthcare.

We hear a lot about the impacts of dangerous climate change. The real issue is the impact climate change will have on our biodiversity. Rising sea levels means contamination of water supplies with a direct impact on biodiversity. Deforestation equally has a massive impact, changing forever the environment in which we live. There is a negative echo in this debate sometimes which tries to allocate blame rather than seek out solutions. In my book, if you are lucky enough still to have a rainforest, please preserve it, for the sake of the biodiversity it supports, and for your children.

I believe that every country's biodiversity is worth protecting. But in order to protect it, you have to know what there is to protect.

As a result of this project, we now know a lot more about the extraordinary depth of Fiji's biodiversity. This is the starting point for determining how to protect it. I am pleased that the UK government was able to support this project. £200,000 pounds may not sound much in this day and age, but if it means identifying Fiji's biosecurity, and building the capacity of those who will be able to protect it into the future, it is money well spent.

Thank you.

## **Launching of the Fiji Natural History Gallery, 28<sup>th</sup> September 2010**

### **Dr Alan Stewart (Darwin Initiative Project Leader, UK)**

High Commissioner, Ladies and Gentlemen,

It is a great honour for me to participate tonight in the launching of this new natural history gallery for Fiji, which is just one of the outputs from a Darwin Initiative project that I have had the privilege of leading for the last four years. It is particularly appropriate that this gallery should be launched at this time. Last year was the 200<sup>th</sup> anniversary of Charles Darwin's birth and this year is the International Year of Biodiversity (IYB).

The Darwin Initiative has its origins in the so-called "Earth Summit" that was held in Rio de Janeiro in 1992, when over 170 nations around the world came together to discuss how best to address what was regarded as the global environmental crisis. A number of treaties were signed to promote the conservation of 'biodiversity' (the term that scientists use for the variety of life, encompassing species, habitats and whole ecosystems) and the sustainable use of the world's resources. One of the UK Government's responses was to commit funding to a programme of projects around the world called the Darwin Initiative.

The guiding philosophy of the Darwin Initiative is to use UK expertise to assist countries that are rich in biodiversity but that have limited human, physical and infrastructural resources to document, research, evaluate and monitor that biodiversity. The main focus in these projects is usually a combination of research, training, capacity building and environmental awareness raising.

Our project was focused on insects, a very neglected and under-studied group of animals, especially so in Fiji. Historically, insects have received far less attention from conservationists than other more 'charismatic' groups of animals, even though they are hugely important in all natural ecosystems. The celebrated ecologist and evolutionary biologist Professor E O Wilson coined the phrase "insects are the small things that run the world" in recognition of the growing realization of their importance in food webs (they provide an important food source for many birds, bats and other animals), their role as predators and parasites of other insects (keeping in check the populations of species that might become pests of our crops and forests) and their provision of what ecologists now call "ecosystem services" (such as where insects are the main pollinators of important crops).

Over the course of the last four years, the Darwin Initiative project team has conducted a large series of surveys of insect diversity across the Fiji Islands, furnishing many thousands of specimens for the new Fiji National Insect Collection housed in modern facilities at USP, and has run a variety of training events, including workshops and courses in insect identification, Geographical Information Systems and statistical data analysis. The result of all this survey effort has been truly remarkable. The team members and the trainers have found several new species for Fiji (some of which are widespread species that had not previously been known from Fiji, whilst others will probably turn out to be new to science) and made important rediscoveries of rare species that had not been recorded for fifty to hundred years and were feared to have gone extinct. Perhaps most significantly, the work has added to and consolidated the evidence for the fact that a very high proportion of species in many taxonomic groups are unique to the Fiji Islands; they are what ecologists call 'endemic' to Fiji because they are found here and nowhere else in the world. This means that Fiji has a special responsibility to ensure that these species are not lost because once gone they cannot be replaced from other parts of the world.

Like many specialist professionals, scientists tend to be good at talking about their work with other scientists but less inclined to share their knowledge and enthusiasm with a wider audience including the general public. Throughout this project, we have realised the

essential need to educate and raise awareness amongst the wider Fijian community of the importance of insects, especially in village communities that own and depend for their livelihood on the forests and other natural habitats. Hence the idea of developing this new natural history gallery, which we hope is just the start of a much larger and longer-term endeavour to make a wider audience aware of Fiji's extraordinary biodiversity, its uniqueness on a world scale, and the importance and urgency of finding ways to conserve it.

A project of this magnitude would not have been possible without the dedication and hard work put in by the whole Darwin Initiative team, many of whom are in the audience tonight. Perhaps you will allow me to single out just a few names. Hilda Waqa has led the project on the Fiji side, arranging and participating in the surveys, training other members of the team and building the new collection. She is too modest to say so, but she should take much of the credit for the success of the project. We have benefited enormously from Marika Tuiwawa's encyclopaedic knowledge of the botanical and vegetation diversity of the Fiji Islands and his extensive contacts with local village landowners. Finally, Professor Bill Aalbersberg has guided the whole project and provided invaluable advice based on his extensive knowledge of Fiji's environmental organisational structure. I am very grateful to them all.

My sincere thanks also go to the Fiji Museum itself for allowing us to dream that a national natural history gallery might be a possibility and helping us to bring it to fruition; to the High Commissioner for sparing time in his busy schedule to be with us and address us tonight; and finally to all of you, the audience, for coming. I hope that you enjoy inspecting the exhibits and that you find many things there to inspire you and others to redouble our collective efforts to conserve Fiji's unique biodiversity for the benefit of future generations.

Thank you.





Figure 1: Banner at roadside entrance to Fiji Museum, Suva (DI is credited below top heading).

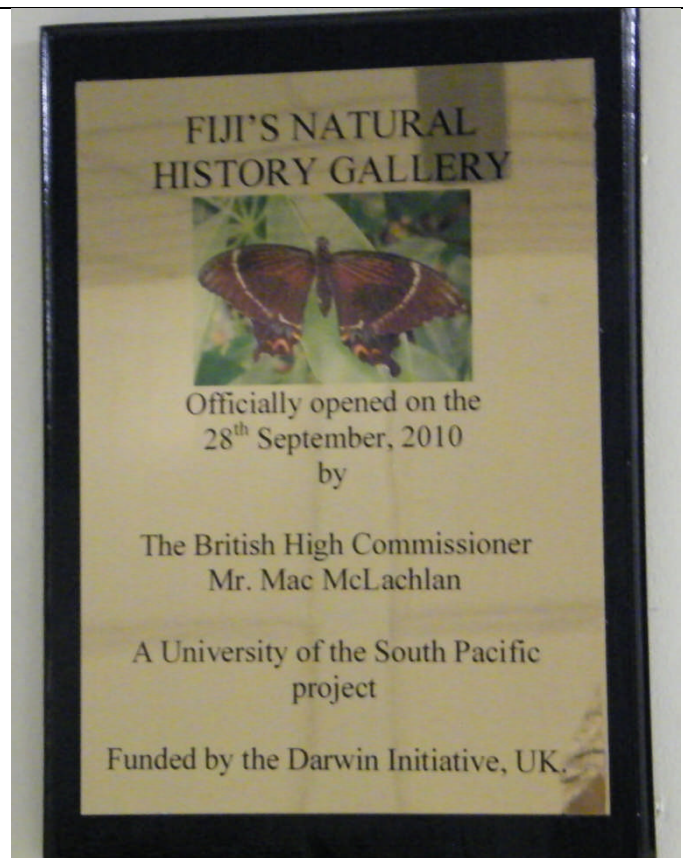


Figure 2: Wall plaque at entrance to gallery.



Figure 3: Photo-montage of Fiji biodiversity at entrance to Natural History Gallery.

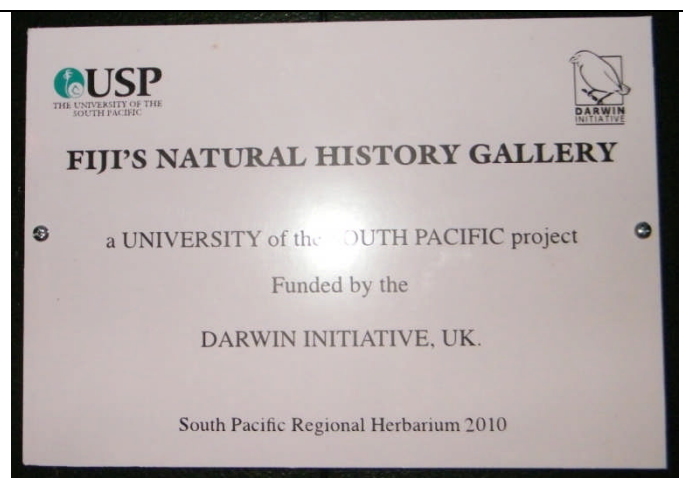


Figure 4: Wall plaque inside gallery.





Figure 5: Close-up of reptile exhibit

Figure 6: Exhibits of rare plants



Figure 7: Exhibits of rare birds and rare insects

Figure 8: Exhibits of endemic reptiles



Figure 9: Display cabinets being examined by (L-R) Dr Alan Stewart, British High Commissioner Mr Mac McLachlan, Mr Sefanaia Nawadra (Director, Conservation International Fiji), Mr Ikbal Jannif (Chairman, Fiji Museum)

Figure 10: (foreground) Dr Alan Stewart and British High Commissioner Mr Mac McLachlan discuss DI Fiji project



## Gallery poster on the Critically Endangered tree *Acmopyle sahniana*

*Acmopyle sahniana* Buchh & N. E. Gray



USP  
THE UNIVERSITY OF THE  
SOUTH PACIFIC




*Acmopyle sahniana* belongs to an exceptional group of gymnosperms, seed producing non-flowering plants, in the family Podocarpaceae. Restricted in distribution to the highly humid highlands of Namosi, Ra and Naitasiri provinces, *A. sahniana* is a local endemic of Viti Levu. Locally referred to as “kautabua or drautabua”, it grows as a sub-canopy rainforest tree species. *A. sahniana* is listed as a Critically Endangered on the IUCN Red list because of the small known population, with less than 150 trees. The greatest threats to this endemic species are mining and logging operations.

Fiji's Biodiversity

©South Pacific Regional Herbarium

## Gallery poster on the cicada *Raiateana knowlesi*

*Raiateana knowlesi* Distant



*Raiateana knowlesi* an endemic cicada locally known as ‘nanai’ was first described in 1907 as *Tibicen knowlesi*. The cicada’s life-cycle undergoes a periodic emergence where the adult phase emerges once every eight years. It has been recorded from parts of the Navua/Serua and Navosa provinces. It is culturally important to a clan in the Navosa Province, where all the chiefly daughters are accorded the title - ‘Rokonai’. It is also a delicacy to the people from parts of these two provinces. The year of emergence usually signifies ‘yabaki ni sautu’ or the year of plenty for their agricultural produce. The lack of knowledge regarding extant populations, area of occupancy, host-plant associations and distribution hampers attempts to enact protective measures.

Fiji’s Biodiversity

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< Institute of Applied Sciences Microbiology Laboratory achieved international accreditation status  
28.09.2010 11:16 Age: 84 days  
By: Ms. Hilda Waqa-Sakiti

## IAS launches Fiji's first Natural History Gallery



The Institute of Applied Sciences (IAS), USP launched Fiji's first NATURAL HISTORY GALLERY housed within the Fiji Museum on



the gallery

Tuesday 28<sup>th</sup>

September, 2010. The Chief Guest for the Opening was the British High Commissioner to Fiji, Mr. Mac McLachlan. The event was well attended by dignitaries in the area of conservation and biodiversity in Suva, administrators of USP including the Vice Chancellor, Prof. Chandra and the project leader from the University of Sussex, (UK) Dr. Alan Stewart.



the opening

The Fiji Natural History Gallery (FNHG) is a result of a project collaboration between USP and the University of Sussex, UK under a Darwin Initiative (UK) fund which began in 2006 titled: "Focus for Fiji: Insect Inventories for Biodiversity Assessments". The FNHG serves as a project milestone to create general awareness on the significance of Fiji's unique biodiversity which includes educational information and specimen exhibition for some of Fiji's unique taxa for the general public.



The FNHG holds a representative collection of Fiji's unique marine and terrestrial fauna and flora. This collection is unique in that most are endemic to Fiji, some critically endangered under the IUCN Red List whilst a few others are extinct. Most of these species have cultural significance where some are 'totems' for certain clans in Fiji such as the larva of the giant long-horned beetle, *Xixuthrus heros*, locally known as 'javato' and the burrowing snake, *Ogmodon vitiensis*, (a member of the cobra family) locally known as 'bolo'.



The various groups represented within the FNHG include: Marine Life (fishes, corals and invertebrates), Freshwater Life (eels and fishes), rare and endemic Plants and Insects (beetles and butterflies), some endemic Birds (both terrestrial and seabirds), native Bats and some endemic Reptiles (iguanas, snakes, skinks and frogs). Most of the species exhibited in this gallery represent the uniqueness of Fiji's biodiversity. For example, the plant *Acmopyle sahniana* in the family Podocarpaceae is very rare and predates the dinosaur era and *Degeneria vitiensis* in the Family Degeneriaceae (an endemic family) is considered to be



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an ancestral family of some flowering plants in the world; the giant long-horned beetle, *X. heros* is the world's second largest beetle and is endemic and rare; Fiji's only endemic bat, *Mirimiri acrodonta*, a single-island endemic which has been only recorded so far from the island of Taveuni and is critically endangered under IUCN Red List; the iconic iguana *Brachylophus vitiensis* which is listed as critically endangered under IUCN Red List and endemic to the western Fiji islands and some of Fiji's now extinct shells such as worm shells and the horse's hoof



In his opening speech, Mr. MacLachlan mentioned that "most of us miss the depth of the biodiversity within the ecosystems in which we go about our daily lives. I for one, am keen to get a glimpse tonight of the giant long-horned beetle – the equivalent to the second row forward of the beetle world - making his debut tonight, and to seeing some of the other endemic marine and terrestrial examples here on display. This is all part of the Fiji that we would not otherwise necessarily experience".



Furthermore, Mr. MacLachlan added that, "the reason why the awareness and protection of biodiversity is so important is more than just for our own awareness or aesthetic pleasure. Imagine the opportunity cost to humanity of dramatic changes to our biodiversity. Think about the role biodiversity has in purifying our air and our water. How it contributes to our medicines, 80% of medicines used in the U.S.A originate from nature and our sustenance".



Most of these unique terrestrial species are currently faced with threats mainly due to clearance of forest trees (i.e. habitat loss and forest fragmentation) for agriculture, logging, mining operations and for human habitation. Predation on eggs, larva and juveniles of some threatened animal species namely by feral cats, mongoose and rats is also another major contributing factor to their survival. The FNHG will therefore serve as an awareness tool for the people of Fiji to learn and better appreciate more of our endemic fauna and flora and hopefully learn to take more responsibility into protecting and conserving Fiji's natural heritage.



For further enquiries please contact Mr. Marika Tuiwawa, Curator- SPR Herbarium on email [tuiwawa\\_m\(at\)usp.ac.fj](mailto:tuiwawa_m(at)usp.ac.fj) or Mr. Johnson Seeto, Curator- Marine Collection on email [seeto\\_j\(at\)usp.ac.fj](mailto:seeto_j(at)usp.ac.fj).

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