

News from the Australasian Section of the Society of Conservation Biology

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HELLO to all SCB members. Please remember that this is your newsletter. The Section Board does not just want to report to the membership on our activities, but would like to see the News and Views section used as a sounding board for our members. We invite you to take advantage of this unique opportunity and send any articles, notices of events and meetings, information, requests . . . in fact, just about anything that you would like to see aired among the membership.

The Board of the Australasian Branch will meet at Taronga Zoo on November 16th with several members attending by a phone link. Unfortunately, this newsletter must go to press before the meeting, so the Board's discussions will be reported in the March 2006 issue. However, details will be posted on the Branch's web site. High on the list of items to be discussed is the editorship of *Pacific Conservation Biology*, with the current Editor, Harry Recher, having decided to retire as Editor after nearly a decade in the post with the March issue. Richard Frankham has also taken this opportunity to step down as an Associate Editor of *PCB* and therefore from the Branch's Board. The contributions of both are warmly appreciated and we anticipate the "extra time" will be well used to further conservation in the Pacific. Both Harry and Richard expressed a need to concentrate on writing up their own research, so we look forward to a flurry of new papers and books.

Anyone interested in contributing to the editing of *Pacific Conservation Biology* should contact Professor Recher at hjrecher@pacific.net.au. Professor Recher says he will be available to assist the new editorial team and hopes to maintain his involvement with the Board of the Australasian Branch.

Conservation of Freshwater Fauna on Tropical Pacific Islands

There is a constant movement of organisms upstream and downstream in streams and rivers and therefore they have a natural recovery capability that helps to restore their ecosystems after degradation.

Many Pacific Island freshwater animals differ from those in temperate countries in that they migrate to brackish water to breed. Animals such as crustaceans and goby fish migrate to brackish water to lay their eggs and in the case of neritid snails, the larvae are carried down to the sea, where they settle. The young in these animals migrate upstream into fresh water. Many of these species have been distributed by ocean currents throughout the Pacific.

Apart from chemical and sewerage pollution near towns, the main danger experienced by island freshwater animals is siltation of the stream or river bottom. Forest logging, road making and the cultivation of steep hillsides are the main causes of siltation. When it occurs, the animals that are not smothered, will starve to death because a layer of silt and grit will cover the periphyton (the layer of algae and bacteria) on which snails, many insect larvae and gobies feed.

If and when the silt and grit is washed away, some animals will return. First to appear are the more abundant and widespread species such as caddis fly larvae, fish and some prawns and atyid shrimps. After a year or so, a community composed of a few abundant species becomes established. However, rare and isolated populations that have been destroyed by siltation may be lost forever as there is no reservoir of individuals to re-inhabit the polluted part of the stream.

There are three endemic species of freshwater snails in Fiji. The small hydrobiidid *Fluviopupa pupoidea* is found in small numbers in most

inland rivers and streams and is unlikely to be threatened. On the other hand, New Caledonia has over 50 species of related hydrobiidid snails. A species is often confined to a seepage site in one valley where cattle come to drink. Each site depends on a different farmer for its protection and the loss of some of the species seems inevitable. The other two endemic gastropods in Fiji have isolated populations in rivers. They, like many other endemic invertebrates on South Pacific islands are vulnerable to population decimation by flooding during cyclones and siltation during development. Protection is difficult because the threat is often natural or comes from further upstream.

For example, the endemic thiarid gastropod *Fijidoma maculata* had until recently been found in isolated populations in the Wainibuka and Wailoa Rivers. The Wainibuka population was reduced from 2 438 per m² in January 1984 by two cyclones in January 1985 to 250 per m² in July 1985. The population had increased to 500 m² by January 1986. The *F. maculata* population in the Wailoa River in 1994 was abundant, but after the FEA had cleaned the tailrace to the power house, 5 km upstream from this population, only two specimens could be found after many days searching in 2003. Fortunately another population was found in the upper Ba River in 2004.

The abundance of native fishes has been greatly reduced by the introduction of Tilapia into Fiji's rivers and streams. In a survey along the length of the Sabeto River, Viti Levu, 70% of the fish caught in the river were Tilapia. Tilapia will eat anything, but native fishes have more specialized diets.

Although rivers and streams have an ability for restoration after natural and human disturbances, it is clear that rare and isolated species are in danger of being lost. The most effective way to protect the freshwater

communities is to ensure that river banks and adjacent hillsides are left with undisturbed vegetation so that erosion is kept to a minimum.

Dr. Alison Haynes,
Freshwater biologist

News of Recent DSc Award

Emeritus Professor Richard Frankham was awarded the degree of Doctor of Science by Macquarie University on 27 September 2005. This was for his outstanding contribution in the fields of conservation genetics, evolutionary genetics and conservation biology. Conservation biology being a relatively new science, I understand this is the first DSc ever awarded in this field of science.

It is nice to see a conservation biologist recognized for making a difference in such a positive way in our technologically driven world. In teaching and training students, developing the tools and the theory to allow the present and future generations a chance to understand and conserve the life forms in our unique biosphere, Dr Frankham will be leaving a legacy of his work that will far out live this generation.

He is the senior author of the world's first introductory text book on conservation genetics (published in 2002 with David Briscoe and Jon Ballou) and now translated into several languages and already recognized as a classic text. In 2004, a primer was produced to supplement this text (for those who are unable or unwilling to read the full text).

Congratulations Dr Richard Frankham, DSc. who has been a strong supporter of the Australasian Branch and of *Pacific Conservation Biology*.

Dr. Leong Lim,
Consultant Ecologist

Call for Oral Presentation and Poster Abstracts for the SCB 2006 Annual Meeting in San Jose, California (USA)

The 20th annual meeting of the Society for Conservation Biology, Conservation Without Borders, will be held 24–28 June 2006 in San Jose, California, USA. The call for proposals for symposia, workshops, and organized discussions closed on 15 October 2005. The Steering Committee will accept abstracts for invited and contributed oral and

poster presentations until 10 January 2006. For details about abstract format and submissions, including an online submission form, please visit <http://www.ConservationBiology.org/2006> Registration for the meeting will open on 15 January.

Addendum

News just to hand is that Menna Jones has resigned from the Branch's Board and, hence, steps down as President. At the Board meeting on 16 November, Craig Morely was unanimously endorsed as President to replace Menna pending elections in 2006. The Board expressed its thanks to Menna for all her work and support of the Branch since it was founded.

On another matter, the Board has decided to proceed with holding regular regional Conferences on Conservation Biology. The first of these will be in early July 2007 in Sydney. Details will be given in the March News and Views, but now is the time to start planning symposia for the Conference.

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