

## **Chasing crayfish and bothering kelp in Otago Harbour.**

**Chris Hepburn**

The exclusively epifaunal bryozoan *Membranipora membranacea* is commonly found on the giant kelp *Macrocystis pyrifera* in both southern and northern hemispheres. The bryozoan gains many benefits from its close association with the giant kelp including kelp-derived dissolved organic matter as a supplement to its diet, a more favourable filter-feeding environment and a refuge from the high sedimentation rates and competition of the benthos. It is however unclear what benefits if any the kelp gains from bryozoan colonisation. The objective of this work was to compare the possible benefits of *Membranipora* colonisation to *Macrocystis* through the provision of ammonium excreted directly onto the kelp surface during N limitation with potential costs such as damage to underlying blade tissue or by providing a barrier to nutrient uptake. A variety of methods including determinations of environmental factors, the growth and physiological status of *M. pyrifera*, natural  $\delta^{15}\text{N}$  values,  $^{15}\text{N}$  enrichment, and biomechanical assays were used to investigate this relationship. It became clear that advantages as a result of colonisation by *M. membranacea* to *M. pyrifera* were most likely in a kelp bed which exhibits high levels of N limitation coinciding with high bryozoan colonisation levels, a scenario which wasn't observed in Otago Harbour over the three year study period.

*Note –A fuller account of Chris Hepburn's prize-winning talk was published in the 2002 Dec-Jan BSO Newsletter.*

## **Fungi of Sweden and Scotland.**

**Alison Stringer**

Selected slides of fungi from the Upplands and Gotland areas of Sweden, and the Lothian region of Scotland. It won't be all mushrooms, there will be scenery, architecture and human interest slides as well!

## **Mushrooms of the Yunnan Province, China.**

**David Orlovich**

China is one of the world's largest producers and consumers of mushrooms. In August this year I spent two weeks in Yunnan province, south-western China, where I visited many mushroom farms, met many mycologists and talked about the research on fungi we are doing here at the University of Otago. My talk includes a photographic tour of this beautiful and botanically rich part of the world

## **Lizards and fruit choices: Preliminary results.**

**Jane Marshall**

It has long been thought that fruit colour is an important trait in fostering frugivory; most fruit is red and most fruit is eaten by birds. As part of my PhD, I am investigating fruit choices made by native skinks of the *Oligosoma* genus. In this talk, I will present the results of the trials I have conducted where skinks were presented with choices of either red or red-orange *Coprosma* berries and white or pale blue *Coprosma* berries.