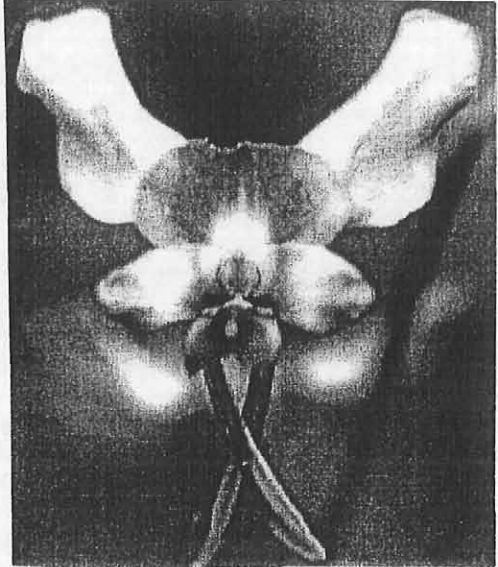


- the *kwongan* or mediterranean-type sandplain heaths that rival the Cape *fynbos* in diversity and ecological intricacy,
- tall wet-temperate rainforests of karri and tingle that retain Gondwanan relics and contain some of the tallest and strangest trees in the world,
- coastal vegetation perched on Devonian limestone reefs stranded atop 100 m high cliffs and on coral atolls precariously placed 2 m above sea level,
- ephemeral everlastings in mulga scrub,
- precambrian granite outcrops,
- oases of ferns and palms in canyons surrounded by a sea of arid-zone spinifex and iconic ghost gums.

*Fig. Donkey orchid,  
Diuris longifolia.*  
- Adrienne Markey

*NB: There's another chance  
to see these wonders  
when Adrienne talks to  
BSO on Wed 2 April.*



**The citizens' voice in conservation: applying ecological science in a statutory policy-advice environment**  
**Kath Dickinson**

The New Zealand Conservation Authority and conservation boards are statutory bodies set up under the Conservation Act. These bodies provide advice on conservation areas, policy, activities and responsibilities of the Department of Conservation. Their responsibilities include land management, wildlife and plant protection, national parks and reserves, recreational and tourism facilities, pest and weed management, walkways, marine reserves and historic and culturally important sites. In the case of the fourteen conservation boards around the country, their advice is given to the conservator of the Department of Conservation conservancy in which they are based. In the case of the Conservation Authority, its role is a national one and it gives advice to the Director-General of Conservation and the Minister of Conservation.

The Boards and the Authority are the citizens' voice for conservation in New Zealand under statute and as such they have an important role to play in setting conservation policy in New Zealand. A conservation board consists of a group of 9 -11 individuals,

The Boards and the Authority are the citizens' voice for conservation in New Zealand under statute and as such they have an important role to play in setting conservation policy in New Zealand. A conservation board consists of a group of 9 -11 individuals, independent of the Department, appointed by Government. The Authority has 13 members, four of whom are selected by Government from public nominations, one is the nominee of Ngai Tahu, and eight others are appointed on the recommendation of either certain Ministers (Maori Affairs (2), Tourism (2), Local Government (1)) or organisations (Royal Forest and Bird Protection Society (1), Federated Mountain Clubs (1), Royal Society of New Zealand (1)). I have been on the Authority since 1996 on the recommendation of the Royal Society of New Zealand and was a member of the Wellington Conservation Board, 1993-96. I have been a member of the Scientific Advisory Group of the Otago Conservation Board since 1986. During this time, many science issues have emerged. I will discuss several these in the context of science communication and advice.

### **Phylogenetic analysis of *Festuca* spp.**

**Angela Hunter, Suzie Draffin, Kelly Leonard**

Previous phylogenetic analyses of *Festuca* identified two clades, the "broad-leaved" and the "fine-leaved" *Festuca*. It is commonly accepted that the New Zealand *Festuca* belong to the "fine-leaved" clade. We carried out phylogenetic analyses on the New Zealand species of *Festuca*. DNA amplification using the polymerase chain reaction was carried out with the Taberlet (1991) primers "e" and "f". We constructed a phylogenetic tree that indicated that *Festuca* have had at least two phylogenetic origins in NZ. We are currently completing analyses of the internal transcribed spacer (ITS) region.

### **Growth and erosion rates of *Macrocystis pyrifera* in differing hydrodynamic environments in Paterson Inlet, Stewart Island, New Zealand.**

**Christopher Hepburn, James Holborow, Catriona L. Hurd, Steven Wing, Russell Frew**

Seaweeds play an essential role in primary production and nutrient cycling. The control of seaweed growth and production rates is attributed to variations in light levels, nutrient supply and temperature. Of these factors, the role of nutrient supply is poorly understood because it requires knowledge of both nutrient levels in the surrounding seawater and the rate of transport of those nutrients to the seaweed. Rates of nutrient transport and hence seaweed production rates are thought to be reduced in habitats where seawater flows are low because a region of stagnant flow forms at the seaweed surface. We examined the influence of hydrodynamic environment on growth and erosion rates of *Macrocystis pyrifera* at eight sites in Paterson Inlet, Stewart Island. Seawater velocity at *M. pyrifera* blade surfaces were estimated using gypsum dissolution nodules attached to the blades. Nitrogen status of the seaweeds was determined from ratios of tissue C:N. The results provide new information on production rates of *M. pyrifera* in different hydrodynamic environments and the potential contribution of *M. pyrifera* to the coastal food web.