

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.

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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.

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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.