Reports and plant lists.

Wetlands up North

A good crowd turned up to our August meeting to hear Peter Johnson give a new angle on the botany of wetlands and the complexity of trying to classify them. Right from the start Peter flew off at a tangent, heading due north from his home on the Otago Peninsula, and taking us on a circumnavigation of the wetlands of the world. Warning us that he would finish with a quiz, Peter first explored the broad classification of hydrosystems; marine, coastal, estuarine, lacustrine (lake), palustrine (land), riverine, underground, geothermal and nival (snow), with examples of their vegetation around the globe. Then he honed in on the overlap and finer details of classes of wetland, exploring the relationships between swamp, fen, bog, wet heath, peat land, marsh, salt marsh, seepage, flush and ephemeral wetland, each with their characteristic vegetation, varying, of course, with altitude and latitude. In the quiz some of the most alert managed to classify the local examples of wetlands thrown up on the screen, and Bastow added the terms 'mire' (peat bog) and 'carr' (forest swamp, such as Kahikatea on poorly draining pakahi soil). We await with interest Peter's forthcoming book.

Allison Knight

Principal weeds in turf and sward zones of kettle depression ephemeral wetlands of inland eastern South Island

P.N. Johnson, Landcare Research, Dunedin, Sept. 2002

a = abundant, f = frequent, o = occasional

AQUATICS			**DAISIES**	
Callitriche stagnalis	o		*Achillea millefolium*	o
Glyceria declinata	f		*Cirsium arvense*	o
Elodea canadensis	f		*C. vulgare*	o
Myosotis laxa	a		*Crepis capillaris*	f
Ranunculus trichophyllus		o	*Hieracium pilosella*	a
Rorippa microphylla	o		*H. praealtum*	f
			Hypochoeris radicata	f
			Leontodon taraxacoides	o
GRASSES			*Taraxacum officinale*	o
Agrostis capillaris	f			
A. stolonifera	o		**SEDGES & RUSHES**	
Alopecurus geniculatus	f		*Carex ovalis*	f
Anthoxanthum odoratum	f		*Juncus articulatus*	a
Holcus lanatus	f		*J. bufonius*	f
Poa annua	o		*J. effusus*	a
Poa pratensis	o		*J. tenuis*	f
Schedonorus phoenix	o		*Luzula congesta*	o

OTHER DICOT HERBS			
Centaurium erythraea	f	*Rumex acetosella*	a
Cerastium fontanum	f	*R. crispus*	f
Epilobium ciliatum	f	*R. obtusifolius*	o
Linum catharticum	a	*Sagina procumbens*	o
Plantago lanceolata	o	*Stellaria alsine*	f
P. major	o	*Trifolium dubium*	a
Prunella vulgaris	a	*T. pratense*	o
Ranunculus repens	f	*T. repens*	a
R. sceleratus	o	*Verbascum thapsus*	f
		Veronica arvensis	o
		V. serpyllifolia	a

Threatened plants of Otago.

In September John Barkla, a botanist with the Otago Conservancy of DOC, treated another full house to a wonderful array of some of the rarest and most threatened plants in Otago and talked about the conservation programmes being implemented for them. Some of the many plants and issues covered ranged from the big, old *Olearia hectorii* in the Matukituki Valley, at last producing seedlings after protection from grazing, to the tiny and seldom seen "spring annuals" in Central; *Ceratocephala pungens* , *Myosurus minimus* subsp. *novae-zelandiae*, and *Myosotis pygmaea* var. *minutiflora.* Research is going on to determine their ecology and threats. There are a variety of native forget-me-nots (*Myosotis* spp) on block mountain crests, especially Dunstan Range. Some have just one or two populations.

Otago is a stronghold for Cook's scurvy grass, *Lepidium oleraceum*, which is very rare on mainland NZ, and new populations have been established at several coastal sites.. Central Otago has several at risk inland *Lepidium* sp. including *Lepidium kirkii* and three subspecies of *Lepidium sisymbrioides* which raises many issues relating to changing land use and weed invasion. *Carmichaelia hollowayi* is a native broom restricted to three sites in Waitaki Valley. Replanting has been carried out at one limestone cliff site, along with the very rare cress, *Ischnocarpus exilis*, while oddities like scree pea, *Montigena novae-zelandiae*, with colourful flower and very large seed pod, at also at risk from hares and other browsers. All eight mistletoes in Otago have problems with loss of pollinators/dispersers (birds) and browsing by possums. Some banding of host trees has been carried out and there is spectacular recovery of *Tupeia antarctica* in the Catlins following possum control

A recent invasion of *Hieracium lepidulum* - threatening the grass, *Simplicia laxa* on rock outcrop on slopes of Old Man Range, is being controlled. New populations of *Hebe cupressoides* have been found, causing a rethink of species ecology. A huge amount of very dedicated conservation work is obviously being done and we look forward to a fuller list of Otago's rare and threatened plants in a later issue.

Allison Knight