

FIELD EXCURSION NOTES FOR THE SYMPOSIUM RESTORING THE HEALTH & WEALTH OF ECOSYSTEMS

29 September 1998

This journey attempts to reveal stories in the land; of natural fragments in a fragmented landscape; of a lost heritage and rediscovery; of a plan to mend the fractures and restore an environment that has evolutionary, cultural, ecological, and functional meaning - which acknowledges and helps us to interpret the layers and dimensions of history.

The following brief descriptions list, for each landscape or locality, the soils, vegetation, place or function in the City or District, and some features, proposals, potentials or questions.

Wigram Retention Basin & Upper Heathcote River:

- ! *Waimakariri*¹ free-draining soils and *Kaiapoi/Taitapu* River corridor deep, winter-wet loam;
- ! Major change in Council approach from drainage to controlled water retention and multi-purpose enhancement for nature conservation and recreation (Waterway Enhancement Programme);
- ! Retention Basin complex begun in 1996; water quality purpose; wetland margin planting; major influx of wildlife;
- ! Heathcote River planting under willows commenced in 1994 and now well established in versatile soils on semi-natural River bank profile;
- ! Part of 'Greenway' concept (see map)

Ashgrove Park:

- ! *Waimakariri* soil
- ! Old homestead site with century-old planting of beech, podocarps, and mixed understorey with regeneration and restored functionality?
- ! Bellbirds and kereru have been observed on the site or in the vicinity;
- ! Issue of invertebrate colonisation

Victoria Park:

- ! *Takahe-Cashmere* hills soils sequence;
- ! Old plantings of *Olearia paniculata* etc.;
- ! 'Wrong' provenances, speed and direction of succession in dry climates.

Aynsley Tce, Heathcote River (1990s Project):

- ! River bank, terrace backswamp (*Taitapu*), scarp slope (*Kaiapoi*) and *anthropogenic* soils;
- ! Sequence of kowhai-koromiko to sedge-harakeke-toetoe-shrub to manuka-cabbage tree to manatu-kahikatea-pokaka to totara-matai-hardwoods to kanuka woodland;
- ! Insect attacks on manuka and pittosporums (also on hills), toxic landfills, vandalism!

Estuary, Te Huingi Manu Wildlife Reserve & Humphreys Drive (lunch):

- ! *Motukarara* saline soils and *Taitapu-Waikuku-anthropogenic* sequences;
- ! Salt marsh species and wading birds in created dabbling ponds;

¹Local Soil Series names are *Selwyn* and *Waimakariri* (very recent coarse textured or free-draining alluvium), *Kaiapoi* (mottled periodically wet loam), *Taitapu* and *Te Kakahi* (gleyed generally saturated loam), *Waimairi* (peat), *Waikuku* (stable sandy loam), *Kairaki* (fresh sand), *Motukarara* (wet saline gley soils), *Cashmere* (hill soils derived from basalt), *Takahe* (hill soils derived from loess).

- ! Various plantings, including native look-alikes (pampas grass, Australian ngaio), around estuary and lower Heathcote (Baker trials) on toxic dredgings by City Council; McCormacks Bay bird islands, Ferrymead plantings, exotic trees as bird roosts, 'Great Green Planting Machine' on *anthropogenic* soils (joint project between Department of Conservation and Applefields), part of circular Greenway concept; Cannon Hill project above to integrate native vegetation and low density housing;
- ! broadening and softening edge to estuary.

North Brighton sand dunes (1990s project):

- ! *Kairaki* sands;
- ! Marram and lupins, monterey cypress and pine;
- ! Restored indigenous sand binders and coastal bush species;
- ! Harsh climate on sand plains behind dunes, drought, recreational pressures;
- ! Issue of African ice-plant as initial stabiliser and nursery for indigenous species.

Travis Swamp:

- ! *Aranui Complex* soils (*Waikuku-Kaiapoi-Taitapu-Waimairi* sequence);
- ! Largest, lowland open freshwater wetland and largest population of pukeko in Canterbury, the only manuka on the Plains; bounded by inland sand dunes, several regionally rare plants.
- ! City Council now own 110 ha to be developed as nature park and as key link in City Circular Park/Greenway; see concept plan;
- ! Grey willow, blackberry and gorse problems; regeneration under willows; cattle grazing as a management tool, creation of ponds and islands for greater wildlife diversity; recreation planning;
- ! Future opportunity for applying 'Mainland Island' principles to enhance wildlife values - trapping, poisoning, deterrents versus predator-proof fencing.

Janet Stewart Reserve & Styx River Catchment (drive past):

- ! *Te Kakahi-Waimairi* soils;
- ! Christchurch City Council designed waterway enhancement with major volunteer/community input to planting; opportunities for recreation and harakeke cultural harvest;
- ! Basin is remnant open marshland and willows; the only *Sphagnum* on Plains
- ! Being developed as a wetland-farm park by City Council;
- ! But recreation threatens to dominate conservation of rare, hard to restore, low fertility marshes, and result in more medium to high fertility swamps which are commonplace.

Otukaikino:

- ! *Selwyn-Kaiapoi-Te Kakahi-anthropogenic* soil complex;
- ! Open swamp, grey willow carr and crack willow border;
- ! Joint venture between Department of Conservation and Lamb & Hayward Funeral Directors since 1992 - to gradually replace willow forest with kahikatea-pokaka-manatu swamp forest as memorial park, part of circular Greenway;
- ! Balance between clearing willows and creating new weed problems versus utilising nursery value of existing vegetation; what is ideal, user-friendly way of conveying planting plans to planters and managers; need for definitive instructions on willow control techniques, use of herbicides etc.

Waimakariri terrace backswamps (view upstream from motorway bridge):

- ! *Selwyn-Kaiapoi-Taitapu* soil sequence;
- ! Regenerating native swamp-forest species (karamu, pittosporums, kowhai, cabbage tree, tree tutu, ferns, swamp species) under willow;

- ! Part of proposed circular park (Greenway) around Christchurch;
- ! Enrich with native swamp forest species (kahikatea, matai, manatu-ribbonwood, tarata-lemmonwood, etc.).
- ! Remnants of Plains dry shrub-grasslands, and kowhai-kanuka-matagouri and cabbage tree woodlands lie beyond the airport;
- ! Need to preserve remnants, restore woody elements on finer-textured soils, retain landscape integrity, create linkages along Waimakariri R, restore birds - Australian quail, weka?

Northern Motorway (also The Groynes and Otukaikino):

- ! *Selwyn-Kaiapoi-Te Kakahi-anthropogenic* soil complex;
- ! Mosaic of riparian land, wetlands (largely willow-covered), dry farmland, and the motorway border with grass, pines, eucalypts etc.;
- ! Part of proposed circular park, proposal for landscape-environmental ‘sculpture’ along motorway corridor as an experience of historical layers and identity of Canterbury for travellers at the gateway to the City - the beginnings at Otukaikino (memorial park being restored to wetland and swamp forest in willows at south end of motorway) and at Pinehaven (Woodend Lions Club) in the north;
- ! Sterility of traditional exotic amenity trees for native wildlife; opportunities on motorways generally.