

# INDIGENOUS VASCULAR FLORA OF OPUATIA WETLANDS

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Based on 38 visits to the wetlands between November 1982 and November 2005.

The survey area covered includes all areas of seasonally wet pasture on adjacent farmland, the main wetland system, Lake "Opuatia" and willow carr extending to the Opuatia stream.

## Abbreviations

(unc) = uncommon within survey area

\* = naturalised (176 taxa)

I = indigenous to survey area (276 taxa)

N = Naturalised (Adventive) to survey area (175 taxa)

P = Planted (2 taxa)

AK = Auckland Museum Herbarium

CHR = Allan Herbarium

WAIK = University of Waikato Herbarium

## LYCOPODS (5) (I:4 N:1)

*Lycopodiella laterale*

WAIK 6548

*L. serpentina* (Locally common following 1982 fire last seen in 1986)

WAIK 6549

*Lycopodium deterodensum*

WAIK 6890

*L. volubile*

\**Selaginella krausiana* (unc)

## FERNS & FORK FERNS (35) (I:34 N:1)

*Adiantum cunninghamii* (unc)

*Asplenium bulbiferum* (unc)

*A. flaccidum*

*A. oblongifolium* (unc)

*A. polyodon* (unc)

*Anarthropteris lanceolata*

*Azolla filiculoides*

WAIK 6560

*Blechnum fluviatile* (unc)

*B. minus*

WAIK 6545

*B. penna-marina* subsp. *alpina* (unc)

*B. novae-zelandiae*

*Botrychium australe* (unc)

AK 282658

*Ctenopteris heterophylla* (unc)

*Cyathea dealbata*

*C. medullaris*

*C. smithii* (unc)

*Dicksonia fibrosa* (unc)

*D. squarrosa*

*Deparia petersenii* subsp. *congrua*

*Diplazium australe*

*Doodia australis*

*Gleichenia dicarpa*

WAIK 6547

*Histiopteris incisa*

*Hypolepis ambigua*

WAIK 6896

*H. distans*

<i>Lindsaea linearis</i>	WAIK 6872
<i>Microsorium pustulatum</i> subsp. <i>pustulatum</i>	
<i>M. scandens</i>	
<i>Ophioglossum petiolatum</i> (unc)	AK 285226
* <i>Osmunda regalis</i>	AK 294582
<i>Paesia scaberula</i>	
<i>Pteridium esculentum</i>	
<i>Schizaea bifida</i> (unc)	
<i>S. fistulosa</i> (unc)	
<i>Tmesipteris elongata</i> (unc)	

#### GYMNOSPERMS (4) (I:3 N:1)

<i>Dacrycarpus dacrydioides</i>	
<i>Dacrydium cupressinum</i> (unc)	
* <i>Pinus pinaster</i> (unc) – eradicated	AK 294734
<i>Podocarpus totara</i> var. <i>totara</i> (unc)	

#### MONOCOT TREES & SHRUBS (2) (I:2)

<i>Cordyline australis</i>	
<i>C. pumilio</i> (unc)	

#### DICOT TREES & SHRUBS (46) (I: 30 N:15 P:1)

* <i>Acacia mearnsii</i>	WAIK 6033
* <i>Alnus glutinosa</i>	
* <i>Berberis glaucophylla</i>	
<i>Coprosma areolata</i> (unc)	
<i>C. grandifolia</i>	
<i>C. lucida</i>	
<i>C. propinqua</i> var. <i>propinqua</i>	WAIK 6881
<i>C. rhamnoides</i> (unc)	
<i>C. robusta</i>	WAIK 6555
<i>C. spathulata</i> subsp. <i>spathulata</i> (unc)	
<i>C. tenuicaulis</i> (incl. <i>C. tenuicaulis</i> var. <i>major</i> )	WAIK 6557
<i>C. robusta</i> × <i>C. propinqua</i> var. <i>propinqua</i> ( <i>C. ×cunninghamii</i> )	WAIK 6556
* <i>Cotoneaster glaucophyllus</i>	
* <i>Crataegus monogyna</i>	
* <i>Cytisus scoparius</i>	
<i>Dracophyllum lessonianum</i> (unc)	WAIK 6590
<i>Epacris pauciflora</i>	WAIK 6882
* <i>Erica lusitanica</i>	
<i>Fuchsia excorticata</i> (unc)	
<i>F. ×colensoi</i> (unc)	
<i>Gaultheria antipoda</i> (unc)	
<i>Hebe stricta</i> var. <i>stricta</i>	WAIK 6032
<i>Kunzea</i> aff. <i>ericoides</i> (b) (Common mainly North Island variant, stout tree, bark peeling in long, leathery, tabular strips; branchlets with appressed, antrorse silky hairs; inflorescences mainly corymbiform)	
<i>Leptospermum</i> aff. <i>scoparium</i> (a) (common North Island variant, leaves wide, lanceolate, apex hardly pungent, lamina margins silky hairy) (unc)	

<i>L. aff. scoparium</i> (b) (Waikato Peat Bog variant, leaves rigid, narrowly linear-lanceolate, apex sharply acute, pungent, lamina margins silky hairy)	WAIK 6559
<i>L. aff. scoparium</i> (a) × <i>L. aff. scoparium</i> (b) (unc)	
<i>Leucopogon fasciculatus</i>	WAIK 8531
<i>L. fraserii</i> (unc)	
* <i>Leycestria formosa</i>	
<i>Melicope simplex</i>	
<i>Melicytus micranthus</i>	AK 11577
<i>M. ramiflorus</i> subsp. <i>ramiflorus</i>	
<i>Myrsine australis</i>	
<i>Pomaderris amoena</i>	WAIK 6935
<i>P. phyllicifolia</i> (unc)	CHR 473119
<i>P. kumeraho</i> (unc)	WAIK 8023
<i>Populus nigra</i> 'Italica' (p)	
* <i>Prunus persica</i> (unc)	
* <i>Rosa gallica</i> (unc)	
* <i>R. rubiginosa</i> (unc)	AK 294594
* <i>Salix cinerea</i>	
* <i>S. fragilis</i>	
* <i>Solanum mauritianum</i>	
<i>Sophora chathamica</i> (unc)	
<i>S. microphylla</i> (unc)	
<i>Syzygium maire</i> (unc)	
* <i>Ulex europaeus</i>	WAIK 6586

#### DICOT LIANES & SCRAMBLING PLANTS (14) (I:8 N:6)

<i>Calystegia sepium</i> subsp. <i>roseata</i> (unc)	
* <i>C. silvatica</i>	
<i>C. tuguriorum</i> (unc)	
* <i>C. sepium</i> subsp. <i>roseata</i> × <i>C. silvatica</i>	
<i>Fuchsia perscandens</i> (unc)	
* <i>Lathyrus tingitanus</i> (unc)	
* <i>Lonicera japonica</i>	
<i>Muehlenbeckia australis</i>	
<i>M. complexa</i>	
<i>Parsonia capsularis</i> var. <i>capsularis</i> (unc)	
<i>P. heterophylla</i>	
<i>Rubus australis</i>	
* <i>R. cissburiensis</i> (unc)	
* <i>R. ulmifolius</i>	

#### GRASSES (36) (I:11 N:24 P:1)

* <i>Agrostis capillaris</i>	
* <i>A. stolonifera</i>	
* <i>Alopecurus geniculatus</i> (unc)	
<i>Amphibromus fluitans</i> (unc)	AK 202187
* <i>Anthoxanthum odoratum</i>	
<i>Bambusa oldhamii</i> (one large specimen, probably planted)	
* <i>Bromus diandrus</i>	
* <i>B. hordaceus</i>	

\**B. willdenowii*  
*Cortaderia fulvida* (unc)  
 \**C. selloana*  
 \**Dactylis glomerata*  
*Echinopogon ovatus*  
 \**Glyceria declinata*  
 \**G. fluitans*  
 \**G. maxima*  
 \**G. striata* (unc)  
*Hierachloe redolens* (unc)  
 \**Holcus lanatus*  
*Isachne globosa* AK 255951  
*Lachnagrostis elata* (unc) AK 295543  
*L. filiformis*  
 \**Lolium perenne*  
*Microlaena stipioides*  
*Oplismenus hirtellus* subsp. *imbecillus*  
 \**Panicum dichotomiflorum*  
 \**Paspalum dilatatum*  
 \**P. distichum*  
 \**Phalaris arundinacea* AK197815  
 \**P. canariensis*  
 \**Poa annua*  
 \**P. trivalis*  
*Rytidosperma gracile*  
 \**R. racemosum*  
*R. unarede*  
 \**Schedonorus phoenix*

**RUSHES (15) (I:7 N:8)**

\**Juncus acuminatus* WAIK 6905  
 \**J. articulatus*  
*J. australis* WAIK 6897  
 \**J. bufonius* var. *bufonius*  
 \**J. bulbosus* WAIK 6885  
 \**J. dichotomous* WAIK 6903  
*J. edgariae*  
 \**J. effusus* WAIK 6902  
*J. pallidus*  
*J. pauciflorus* (unc) WAIK 6966  
*J. planifolius* WAIK 6936  
*J. prismatocarpus*  
*J. sarophorus* AK 294605  
 \**J. tenuis* var. *tenuis* WAIK 6574  
 \**Luzula campestris*

**ORCHIDS (24) (I:24)**

*Anzybas rotundifolius* (unc) AK 294812  
*Corybas cheesemanii* WAIK 6030  
*Diplodium trullifolium* (unc) WAIK 6563

<i>Gastrodia</i> aff. <i>sesamoides</i> (unc)	
<i>Microtis unifolia</i>	WAIK 6975
<i>Nematoceras trilobus</i>	
<i>Orthoceras novae-zelandiae</i>	
<i>Petalochilus chlorostylus</i> (unc)	AK 202072
<i>Prasophyllum hectorii</i> (unc) (last seen December 1990)	WAIK 6938
<i>Pterostylis banksii</i> (unc)	
<i>P. paludosa</i>	AK 165493
<i>P. micromega</i> (unc)	WAIK 6563
<i>P. aff. graminea</i> (diminutive plant of wetlands, = <i>P.</i> “sphagnum”)	WAIK 6564
<i>P. aff. banksii</i> (small plant, leaves broad overtopping galea, flowers small)	
<i>Simpliglottis cornuta</i>	
<i>Singularybas oblongus</i> (unc)	WAIK 8626
<i>Spiranthes novae-zelandiae</i> (unc)	WAIK 6565
<i>Thelymitra colensoi</i>	WAIK 6550
<i>T. cyanea</i> (both blue and white forms)	AK 197766
<i>T. longifolia</i> (small-flowered autogamous form)	
<i>T. pauciflora</i> (large, entomophilous form)	
<i>T. pulchella</i> (unc)	
<i>T. ×dentata</i> ( <i>T. longifolia</i> × <i>T. pulchella</i> ) (unc) (last seen 1994)	
<i>T. aff. ixioides</i> (unc)	
<i>T. sp.</i> (unnamed, <i>sensu T. formosa</i> of Moore & Edgar 1970) (last seen 1999)	AK 228588

#### SEDGES (55) (I:45 N:10)

<i>Baumea articulata</i>	
<i>B. arthrophylla</i>	WAIK 6587
<i>B. juncea</i> (unc)	
<i>B. rubiginosa</i>	WAIK 8514
<i>B. tenax</i>	
<i>B. teretifolia</i>	
<i>Bolboschoenus fluviatilis</i> (unc)	WAIK 6907
<i>B. medianus</i> (unc)	
<i>Carex breviculmis</i>	WAIK 6884
<i>C. dissita</i>	
* <i>C. divulsa</i>	WAIK 6880
<i>C. inversa</i>	
* <i>C. flacca</i>	WAIK 6577
<i>C. flagellifera</i>	WAIK 6891
<i>C. fascicularis</i>	AK 285219
<i>C. gaudichaudiana</i>	AK 286812
<i>C. lessoniana</i>	WAIK 6888
<i>C. maorica</i>	WAIK 6544
* <i>C. ovalis</i>	AK 294604
* <i>C. punctata</i>	WAIK 6576
<i>C. secta</i>	WAIK 6573
<i>C. sinclairii</i>	
<i>C. subdola</i>	AK 286813
<i>C. testacea</i> (unc)	
<i>C. virgata</i>	AK 285224
* <i>C. vulpinoides</i>	

<i>C. sp. aff. geminata</i> (unnamed sp., common, coastal and lowland plants, leaves > 20 mm wide)	
* <i>Cyperus congestus</i>	
* <i>C. eragrostis</i>	
* <i>C. tenellus</i>	WAIK 6876
<i>C. ustulatus</i> f. <i>ustulatus</i>	
<i>Eleocharis acuta</i>	WAIK 6579
<i>E. gracilis</i>	WAIK 6578
<i>E. sphacelata</i>	WAIK 6553
<i>Gahnia lacera</i> (unc)	
<i>G. setifolia</i>	
<i>G. xanthocarpa</i>	
<i>Isolepis distigmatus</i>	WAIK 6883
<i>I. inundatus</i>	WAIK 6581
* <i>I. marginata</i>	
<i>I. prolifera</i>	
<i>I. reticularis</i>	WAIK 6879
* <i>I. sepulcralis</i>	
<i>Lepidosperma australe</i>	WAIK 6886
<i>L. filiforme</i>	AK 294736
<i>L. laterale</i>	
<i>Machaerina sinclairii</i>	
<i>Morelotia affinis</i>	
<i>Schoenus apogon</i> s.s	WAIK 6580
<i>S. brevifolius</i>	WAIK 6580
<i>S. carsei</i>	AK 203228
<i>S. maschalinus</i>	WAIK 8517
<i>S. tendo</i>	WAIK 6566
<i>Schoenoplectus tabernaemontani</i>	
<i>Tetraria capillaris</i>	WAIK 6554

**MONOCOT HERBS OTHER THAN GRASSES, ORCHIDS, RUSHES AND SEDGES  
(17) (I:13 N:4)**

<i>Astelia grandis</i> (unc)	
<i>Dianella nigra</i> s.s.	
<i>D. aff. nigra</i> (swamp variant, non-rhizomatous, caespitose plants, basal culms carmine to dark red, leaves erect to suberect)	CHR 569904
* <i>Egeria densa</i>	
<i>Empodisma minus</i>	WAIK 6875
* <i>Landoltia punctata</i>	
<i>Lemna minor</i> agg.	AK 284667
<i>Phormium tenax</i>	WAIK 8513
<i>Potamogeton cheesemanii</i>	WAIK 7105
* <i>P. crispus</i>	WAIK 6870
<i>P. ochreatus</i>	WAIK 6869
<i>P. suboblongus</i> (unc)	WAIK 6868
<i>Sparganium subglobosum</i>	WAIK 6878
<i>Sporadanthus ferrugineus</i> (unc) (last seen 1987)	WAIK 6568
<i>Stuckenia pectinata</i> (unc)	
<i>Triglochin striata</i>	
* <i>Wolffia australiana</i>	

**COMPOSITE HERBS (48) (I:12 N:36)**

* <i>Achillea millefolium</i>	
* <i>Anthemis cotula</i>	AK 179371
* <i>Artemisia verlotiorum</i> (unc)	
* <i>Aster subulatus</i>	
* <i>Bellis perennis</i>	
* <i>Bidens frondosa</i>	
* <i>Carduus nutans</i>	
* <i>C. pycnocephalus</i> (unc)	
<i>Centipeda cunninghamii</i>	
* <i>Chamaemelum nobile</i>	AK 179370
* <i>Cirsium arvense</i>	
* <i>C. palustre</i> (unc)	
* <i>C. vulgare</i>	
* <i>Conyza bilbaoana</i>	
* <i>C. sumatrensis</i>	
* <i>Cotula australis</i>	
* <i>Crepis capillaris</i>	
* <i>Dittrichia graveolens</i> (unc)	
* <i>Erechtites hieraciifolia</i> (unc)	
<i>Euchiton audax</i> (unc)	
<i>E. gymnocephalus</i>	
<i>E. involucratus</i>	WAIK 7025
<i>E. limosus</i>	WAIK 6895
* <i>Gamochaeta calviceps</i> (unc)	
* <i>G. coarctata</i>	
* <i>Helminthotheca echioides</i>	
* <i>Hypochoeris radicata</i>	
* <i>H. glabra</i> (unc)	
* <i>Lactuca serriola</i> (unc)	
<i>Lagenifera pumila</i>	
* <i>Lapsana communis</i>	
* <i>Leonotodon taraxacoides</i> (unc)	
<i>Leptinella squalida</i> subsp. <i>squalida</i> (unc)	
* <i>Leucanthemum vulgare</i>	
* <i>Matricaria dioscoidea</i>	
* <i>Mycelis muralis</i>	
<i>Picris burbidgeae</i> (unc) (two plants seen in 2003)	AK 286649
<i>Pseudognaphalium</i> aff. <i>luteoalbum</i> (common lowland sp.;	
Basal and mid cauline leaves lanceolate, acute)	
* <i>Senecio bipinnasectus</i>	
<i>S. glomeratus</i>	
<i>S. hispidulus</i>	
* <i>S. jacobaea</i>	
<i>S. minimus</i>	
* <i>S. vulgaris</i>	
* <i>Silybum marianum</i> (unc)	

- \**Sonchus asper*
- \**S. oleraceus*
- \**Taraxacum officinale* agg.

## DICOT HERBS (153) (I:85 N:68)

- Acaena novae-zelandiae*
- Alternanthera* aff. *sessilis* (unnamed species of New Zealand, Norfolk and southern Australia; leaves narrowly lanceolate, more or less entire, without obvious serrations or denticles)
- \**Amaranthus deflexus*
- \**Apium nodiflorum*
- Callitriche muelleri*
- C. petriei* subsp. *petriei*
- \**C. stagnalis* WAIK 6892
- \**Cannabis sativa* (unc) (also planted)
- \**Capsella bursa-pastoris*
- Cardamine debilis* agg. ("Long style")
- \**C. flexuosa* (unc)
- \**C. hirsuta*
- \**C. pratensis*
- C. aff. corymbosa* (unc)
- \**Centaurium erythraea*
- Centella uniflora*
- \**Cerastium glomeratum*
- \**C. fontanum* subsp. *vulgare*
- \**Ceratophyllum demersum*
- \**Chenopodium album*
- \**Cuscuta campestris* (unc)
- \**Daucus carota*
- Dichondra repens*
- D. aff. brevifolia* (*D.* "slender" of Druce 1993) AK 294591
- \**Digitalis pupurea*
- Drosera auriculata* WAIK 8526
- D. binata*
- D. spatulata* (last seen November 1999) WAIK6567
- \**Duchesnea indica*
- \**Echium plantagineum*
- \**E. vulgare*
- Epilobium chionanthum* (unc)
- \**E. ciliatum*
- E. nummularifolium*
- E. pallidiflorum* WAIK 6949
- E. rotundifolium*
- \**Erodium moschatum*
- \**Fumaria muralis*
- \**Galium aparine*
- \**G. palustre* AK294605
- G. propinquum*
- \**Geranium dissectum*
- \**G. molle*
- Gonocarpus micranthus* subsp. *micranthus*



<i>G. incanus</i>	WAIK 6901
<i>Gratiola sexdentata</i>	
<i>Haloragis erecta</i> subsp. <i>erecta</i>	
<i>Hydrocotyle heteromeria</i>	
<i>H. microphylla</i>	
<i>H. moschata</i>	
<i>H. novae-zelandiae</i> s.s	
<i>H. pterocarpa</i>	
<i>H. aff. microphylla</i> (cf. <i>H. parvifolia</i> Carse)	
* <i>Hypericum humifusum</i>	WAIK 6874
* <i>H. perforatum</i>	
<i>H. aff. japonicum</i> ( <i>H. japonicum</i> of N.Z. and Australian authors non <i>H. japonicum</i> Thunb.)	WAIK 6571
* <i>Lepidium didymum</i>	
* <i>L. squamatum</i>	
<i>Lilaeopsis novae-zelandiae</i>	WAIK 6582
* <i>Linum catharticum</i>	
* <i>L. marginale</i>	
<i>Lobelia anceps</i>	WAIK 6893
* <i>Lotus pedunculatus</i>	
* <i>L. suaveolens</i>	
* <i>Ludwigia palustris</i>	
* <i>L. peploides</i> subsp. <i>montevidensis</i>	
* <i>Lysimachia nummularia</i> (unc)	
* <i>Lythrum hyssopifolia</i>	
* <i>L. junceum</i>	
* <i>Malva neglecta</i>	
* <i>Medicago indicus</i>	
* <i>Mentha pulegium</i>	
* <i>M. ×piperita</i> var. <i>citrata</i> (unc)	
* <i>Mimulus guttatus</i>	
* <i>M. moschatus</i> (unc)	
* <i>Modiola caroliniana</i> (unc)	
* <i>Myosotis arvensis</i> (unc)	
* <i>M. discolor</i>	
* <i>M. laxa</i> subsp. <i>caespitosa</i>	
* <i>M. sylvatica</i> (unc)	
* <i>Myriophyllum aquaticum</i>	
<i>M. pedunculatum</i> subsp. <i>novae-zelandiae</i> (unc)	
<i>M. propinquum</i>	WAIK 6900
<i>M. robustum</i> (unc)	
<i>Nertera depressa</i>	
<i>N. dichondrifolia</i>	
<i>N. scapanioides</i>	WAIK 6585
* <i>Orobanche minor</i>	
* <i>Oxalis corniculata</i>	
<i>O. exilis</i>	
* <i>Parentucellia viscosa</i>	
<i>Pelargonium inodorum</i>	
<i>Persicaria decipiens</i>	WAIK 6889
* <i>P. hydropiper</i>	
* <i>P. lapathifolia</i> (unc)	

\**P. strigosa* (unc)  
 \**Phytolacca octandra*  
 \**Plantago australis*  
 \**P. lanceolata*  
 \**P. major*  
 \**Polycarpon tetraphyllum*  
 \**Polygonum aviculare*  
 \**P. persicaria*  
*Potentilla anserinioides* (unc)  
*Pratia angulata*  
 \**Prunella vulgaris*  
*Ranunculus amphitrichus* WAIK 6871  
 \**R. flammula* AK 294602  
*R. macropus* (unc)  
*R. reflexus*  
 \**R. repens*  
 \**R. sardous*  
 \**R. sceleratus*  
*R. urvilleanus* (unc) (now very close to local extinction due to feral red deer) WAIK 6887  
*R. amphitrichus* × *R. macropus*  
 \**Rorippa microphylla*  
 \**R. nasturtium-aquaticum* WAIK 6034  
*R. palustris* (unc) WAIK 6937  
 \**Rumex acetosella*  
 \**R. brownii*  
 \**R. obtusifolius*  
 \**Sherardia arvensis*  
 \**Sisymbrium officinale*  
*Solanum americanum* subsp. *nutans*  
 \**S. chenopodioides*  
 \**S. esculentum* (unc)  
 \**S. nigrum*  
 \**S. pseudocapsicum* (unc)  
 \**Spergularia rubra*  
 \**Stachys sylvatica* (unc)  
 \**Stellaria alsine*  
 \**S. graminea*  
 \**S. media*  
*S. parviflora*  
 \**Trifolium arvense* (unc)  
 \**T. campestre*  
 \**T. dubium*  
 \**T. pratense*  
 \**T. repens*  
 \**T. subterraenum* (unc)  
*Utricularia australis* WAIK 6584  
*U. delicatula* (unc) (last seen 1997) AK 170323  
*U. dichotoma* (unc) (following 1982 fire widespread, by 2005  
 only one plant could be found) WAIK 6865  
 \**Urtica urens*  
 \**Vicia sativa*  
 \**V. tetrasperma* (unc)

*Viola lyallii*

\**Verbascum thapsus*

\**V. virgatum* (unc)

\**Veronica anagallis-aquatica*

*V. plebeia*

\**V. persica*

\**V. serpyllifolia*

WAIK 6894

**TOTAL TAXA: 454**

**Indigenous: 276**

**Naturalised: 176**

**Planted: 2**