

FIELD TRIP TO MATAKANA ISLAND

Sarah Beadel

There was an awesome turnout for the field trip to Matakana Island, and nearly 40 people came to explore the dunes and wetlands. It was a relatively early start for everybody at Omokoroa, and we all made it on time except the one out-of-towner who took a wrong turn and ended up on the wrong peninsula. Luckily for us, the barge waited. The tides were favourable so the crossing was relatively quick; cutting straight across the harbour rather than taking a meandering route through the channels that have to be followed at low tide.

So, onto the Island, and we drove straight through to the ocean side and off to look at the *Pimelea villosa* population on the dunes (*P. villosa* is the most up-to-date name for *P. arenaria*). Ross Beever had come on the trip to specifically look for an undescribed species of basket fungi (*Ileodictyon* sp.) that, to date, has only been found at a handful of dune sites in New Zealand, and is thought to be endemic (see the article by Ross Beever on this species in this issue of the newsletter). There was much excitement when he located several plants almost immediately upon arrival.

The dunes along the ocean side of Matakana Island extend over about 24 km. Whilst in places the indigenous communities are very narrow, with pines extending almost to the foredune, there is generally a relatively wide band of predominantly indigenous vegetation cover. This comprises spinifex (*Spinifex sericeus*), pingao (*Desmoschoenus spiralis*), and *Calystegia soldanella* on the foredune, progressing to *Ficinia nodosa* and *Muehlenbeckia complexa*-dominant vegetation behind the foredune. There is a wide range of indigenous species present, including *Lachnagrostis billardierei*, *Oxalis rubens*, *Tetragonia implexicoma*, local *Senecio biserratus*, *Coprosma acerosa* (classed as At Risk-Naturally Uncommon), and *Ozothamnus leptophyllus*. Coastal mahoe (*Melicytus novae-zelandiae*) occurs at one site on the dune. There are also occasional akeake (*Dodonea viscosa*) and small numbers of karaka (*Corynocarpus*

laevigatus) shrubs. We saw many of these species on our way along the dunes to see the *Pimelea villosa*, of which ten were seen, including several quite small seedlings or young plants. It was good to see that the population is regenerating naturally, although some of the larger plants were suffering dieback. It was also interesting to see a *Coprosma acerosa* growing right next to the *Pimelea villosa*.

There is a low diversity of invasive weeds on the dunes on Matakana, but weeds are nevertheless common in places. At this site we found wild gladiolus (*Gladiolus undulatus*) and a small population of rain daisy (*Osteospermum fruticosum*). There is also localised pampas (*Cortaderia selloana*), wilding pines (mainly *Pinus radiata*), lupin (*Lupinus arboreus*), and localised marram (*Ammophila arenaria*), as well as purple groundsel (*Senecio elegans*), haretail (*Lagurus ovatus*), and catsear (*Hypochaeris radicata*).

We walked back to the vehicles and drove further northwards on the forestry roads, emerging back on the beach near the top of the island to look at some recent control works on one of the main weeds on dunes on the island, coast tea tree (*Leptospermum laevigatum*). This small tree is a major threat to the integrity of the indigenous dune communities on the island, and the Regional Council, the iwi, and the landowners and forest managers on the island are currently working together to find a way to successfully control it and revegetate the dunes. Where coast tea tree is present, it appears to replace all indigenous species such as spinifex and pingao, and they cannot survive near it.

We then walked up the beach a little way and had lunch under the pines, looking out to Tuhua (Mayor Island), and were entertained by a group of variable (black) oystercatchers on the beach.

After lunch we drove to the wetland at the northern end, which has a small lake associated with it. This wetland is very picturesque. There is some natural erosion of the dunes occurring near the wetland, and there was discussion about whether the water was currently brackish and whether the sea would eventually break

through into the wetland. These wetlands at the top of the island are some of the best in the Bay of Plenty, and support the largest populations of *Cyclosorus interruptus* and *Thehypteris confluens* in the Bay of Plenty (both species are classed as At Risk-Declining). We were pleased to find *Cyclosorus* amongst the *Baumea* at the north-western end of the wetland.

We then walked along an old forestry track to the harbour side of the island. The understorey beneath the pine is dominated by indigenous rushes and sedges: oioi (*Apodasmia similis*), *Baumea juncea*, and *Muehlenbeckia complexa*, along with scattered mingimingi (*Leucopogon fasciculatus*), localised hound's tongue (*Microsorium pustulatum*), and bracken (*Pteridium esculentum*). An interesting feature under the pines is the locally dense swards of the small coastal grass *Zoysia pauciflora*; a relatively uncommon species in the Bay of Plenty. There are also local open sandy clearings with *Ficinia nodosa*, sand coprosma (*Coprosma acerosa*), and *Pseudognaphalium luteoalbum* agg. Under the pines, orchids are present locally, including *Thehymitra longifolia*, *Winika cunninghamii*, *Earina autumnalis*, and *Microtis unifolia*. *Poa pusilla*, another uncommon species in the Bay of Plenty, was spotted along the track margins. This species is only known from Matakana Island.

We were keen to get to some of the larger raupo (*Typha orientalis*) wetlands so we walked around the harbour margin up to the edge of one of the wetlands, and could just see a glimpse of the vast expanse of raupo reedland. On the far side we could also see four pole kahikatea (*Dacrycarpus dacrydioides*). These are the only known naturally-occurring kahikatea on the island. In places, beneath the willows, in some of the wetlands, I have also found the odd pukatea (*Laurelia novae-zelandiae*) seedling and sapling, and there is one pole kauri (*Agathis australis*) on the margins of one of the wetlands.

There was one last species that we wanted to see for the day so we ventured into the wetland, and there amongst the *Baumea rubiginosa* were a few dead fronds of *Thehypteris confluens*, as well as many more *Cyclosorus interruptus*.

We bush-bashed our way back through gorse (*Ulex europaeus*) and pines to one of the forestry tracks and, as we got back to near the vehicles, we saw the small population of *Schoenus nitens* alongside the track. This is one of the few places where this species occurs in the Bay of Plenty. Then it was back to the vehicles to make it to the barge by 4.15 p.m. We arrived just in time and all our vehicles just fitted onto the barge. A fitting end to another memorable day out in one of the special places in the Bay of Plenty.

REFERENCES

de Lange P.J., Norton D.A., Courtney S.P., Heenan P.B., Barkla J.W., Cameron E.K., Hitchmough A.J. 2009: Threatened and uncommon plants of New Zealand (2008 revision). *New Zealand Journal of Botany* 47: 61-96.

CHECKLIST OF INDIGENOUS AND NATURALISED PLANTS OF MATAKANA ISLAND

Sarah Beadel

(Based on numerous visits between 1988 and 2009)

INDIGENOUS SPECIES

Gymnosperms

<i>Agathis australis</i>	kauri
<i>Dacrycarpus dacrydioides</i>	kahikatea
<i>Podocarpus totara</i> var. <i>totara</i>	totara

Monocot. trees and shrubs

<i>Cordyline australis</i>	ti kouka, cabbage tree
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Dicot. trees and shrubs

<i>Avicennia marina</i> subsp. <i>australasica</i>	manawe, mangrove
<i>Brachyglottis repanda</i>	rangiora
<i>Calystegia sepium</i> subsp. <i>roseata</i>	
<i>Coprosma acerosa</i> s.s.	sand coprosma, tarakupenga
<i>Coprosma lucida</i>	karamu, glossy karamu
<i>Coprosma repens</i>	taupata
<i>Coprosma robusta</i>	karamu
<i>Coprosma tenuicaulis</i>	hukihuki, swamp coprosma
<i>Coprosma propinqua</i> × <i>C. repens</i>	
<i>Corynocarpus laevigatus</i>	karaka
<i>Dodonaea viscosa</i>	akeake
<i>Entelea arborescens</i>	whau
<i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i>	hangechange
<i>Hebe stricta</i> var. <i>stricta</i>	koromiko
<i>Knightia excelsa</i>	rewarewa
<i>Kunzea ericoides</i>	kanuka
<i>Laurelia novae-zelandiae</i>	pukatea
<i>Leptospermum scoparium</i> agg.	manuka
<i>Leucopogon fasciculatus</i>	mingimingi
<i>Leucopogon fraseri</i>	patotara
<i>Macropiper excelsum</i> subsp. <i>excelsum</i>	kawakawa
<i>Melicytus novae-zelandiae</i>	coastal mahoe
<i>Melicytus ramiflorus</i> subsp. <i>ramiflorus</i>	mahoe
<i>Metrosideros excelsa</i>	pohutukawa
<i>Myoporum laetum</i>	ngaio
<i>Myrsine australis</i>	mapou
<i>Ozothamnus leptophyllus</i>	tauhinu
<i>Pimelea villosa</i> s.s.	autetaranga
<i>Pittosporum crassifolium</i>	karo

<i>Pittosporum tenuifolium</i>	kohuhu
<i>Plagianthus divaricatus</i>	marsh ribbonwood makaka
<i>Pseudopanax arboreus</i>	whauwhaupaku, five finger
<i>Pseudopanax crassifolius</i>	horoeka, lancewood
<i>Pseudopanax lessonii</i>	houpara
<i>Vitex lucens</i>	puriri

Dicot. lianes

<i>Clematis paniculata</i>	puawananga
<i>Muehlenbeckia australis</i>	puka
<i>Muehlenbeckia complexa</i>	pohuehue

Lycopods and psilopsids

<i>Lycopodium volubile</i>	waewaekoukou
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Ferns

<i>Adiantum cunninghamii</i>	huruhuru tapairu
<i>Adiantum hispidulum</i>	
<i>Asplenium appendiculatum</i> subsp. <i>maritimum</i>	
<i>Asplenium bulbiferum</i>	mouku, hen and chicken fern
<i>Asplenium flaccidum</i>	makawe
<i>Asplenium oblongifolium</i>	huruhuruwhenua
<i>Asplenium polyodon</i>	petako
<i>Azolla filiculoides</i>	retoretore
<i>Blechnum filiforme</i>	panako
<i>Blechnum minus</i>	swamp kiokio
<i>Blechnum novae-zealandiae</i>	kiokio
<i>Blechnum vulcanicum</i>	korokio
<i>Ctenopteris heterophylla</i>	
<i>Cyathea dealbata</i>	ponga, silver fern
<i>Cyathea medullaris</i>	
<i>Cyclosorus interruptus</i>	
<i>Deparia petersenii</i> subsp. <i>congrua</i>	
<i>Dicksonia squarrosa</i>	wheki
<i>Diplazium australe</i>	
<i>Doodia australis</i>	pukupuku
<i>Gleichenia dicarpa</i>	tangle fern
<i>Gleichenia microphylla</i>	waewaekaka, swamp umbrella fern
<i>Histiopteris incisa</i>	matata, water fern
<i>Hymenophyllum demissum</i>	irirangi, filmy fern
<i>Hymenophyllum multifidum</i>	mauku, filmy fern
<i>Hymenophyllum sanguinolentum</i>	piripiri, filmy fern
<i>Hymenophyllum scabrum</i>	mauku, filmy fern
<i>Hypolepis ambigua</i>	
<i>Hypolepis distans</i>	
<i>Microsorium pustulatum</i>	kowaowao, hounds tongue fern

<i>Paesia scaberula</i>	matata
<i>Pellaea rotundifolia</i>	tarawera, button fern
<i>Pneumatopteris pennigera</i>	pakau
<i>Pomaderris amoena</i>	tauhinu
<i>Pteris macilenta</i>	sweet fern
<i>Pteris tremula</i>	turawera, shaking brake
<i>Pyrrosia eleagnifolia</i>	leather-leaf fern
<i>Rumobra adiantiformis</i>	
<i>Thelypteris confluens</i>	

Orchids

<i>Earina autumnalis</i>	raupeka
<i>Earina mucronata</i>	peka-a-waka
<i>Microtis unifolia</i> agg.	maikaika
<i>Pteridium esculentum</i>	rarahu, bracken
<i>Thelymitra longifolia</i>	maikuku
<i>Thelymitra pauciflora</i>	slender sun orchid
<i>Winika cunninghamii</i>	

Grasses

<i>Austrostipa stipoides</i>	
<i>Cortaderia fulvida</i>	toetoe
<i>Deyeuxia avenoides</i>	
<i>Deyeuxia quadriseta</i>	
<i>Dichelachne crinita</i>	patiti, plume grass
<i>Isachne globosa</i>	swamp millet
<i>Lachnagrostis billardierei</i>	perehia
<i>Lachnagrostis filiformis</i>	perehia
<i>Microlaena stipoides</i>	patiti, meadow rice grass
<i>Oplismenus hirtellus</i> subsp. <i>imbecillis</i>	
<i>Poa anceps</i> agg.	
<i>Poa pusilla</i>	
<i>Rytidosperma gracile</i>	
<i>Spinifex sericeus</i>	kowhangatara, spinifex
<i>Zoysia pauciflora</i>	

Sedges

<i>Baumea arthropphylla</i>	
<i>Baumea articulata</i>	
<i>Baumea juncea</i>	
<i>Baumea rubiginosa</i>	
<i>Baumea tenax</i>	
<i>Baumea teretifolia</i>	
<i>Bolboschoenus fluviatilis</i>	purua grass
<i>Bolboschoenus medianus</i>	purua grass
<i>Carex breviculmis</i>	

<i>Carex geminata</i> agg.	rautahi
<i>Carex maorica</i>	
<i>Carex pumila</i>	
<i>Carex secta</i>	purei
<i>Carex testacea</i>	
<i>Carex virgata</i>	purei
<i>Cyperus ustulatus</i> f. <i>ustulatus</i>	toetoe, upokotangata
<i>Desmoschoenus spiralis</i>	pingao
<i>Eleocharis acuta</i>	
<i>Eleocharis sphacelata</i>	giant spike sedge, ngawha
<i>Ficinia nodosa</i>	wiwi
<i>Isolepis cernua</i>	
<i>Isolepis inundata</i>	
<i>Isolepis prolifera</i>	
<i>Lepidosperma australe</i>	
<i>Morelotia affinis</i>	
<i>Schoenoplectus pungens</i>	
<i>Schoenoplectus tabernaemontani</i>	kapungawha
<i>Schoenus apogon</i>	
<i>Schoenus maschalinus</i>	
<i>Schoenus nitens</i>	
<i>Schoenus tendo</i>	wiwi
<i>Tetraria capillaris</i>	
<i>Uncinia uncinata</i>	kamu matau a Maui

Rushes

<i>Apodasmia similis</i>	oioi
<i>Empodisma minus</i>	wire rush
<i>Juncus caespiticus</i>	
<i>Juncus edgariae</i>	wi
<i>Juncus kraussii</i> var. <i>australiensis</i>	wi sea rush
<i>Juncus pallidus</i>	wi
<i>Juncus planifolius</i>	
<i>Juncus prismatocarpus</i>	
<i>Juncus sarophorus</i>	wi
<i>Luzula picta</i> var. <i>picta</i>	

Monocot. herbs (other than orchids, grasses, sedges, and rushes)

<i>Astelia banksii</i>	
<i>Astelia solandri</i>	kowharawhara
<i>Astelia trinervia</i>	mauri
<i>Collospermum hastatum</i>	kahakaha
<i>Dianella haemata</i>	
<i>Dianella nigra</i>	turutu
<i>Lemna minor</i>	karearea
<i>Phormium tenax</i>	harakeke, flax

<i>Potamogeton cheesemani</i>	manihi
<i>Sparganium subglobosum</i>	maru, burr reed
<i>Triglochin striata</i>	arrow grass
<i>Typha orientalis</i>	raupo

Composite herbs

<i>Cotula coronopifolia</i>	bachelor's button
<i>Euchiton audax</i>	
<i>Euchiton collinus</i>	
<i>Euchiton sphaericus</i>	
<i>Lagenifera pumila</i>	papataniwhaniwha
<i>Pseudognaphalium luteoalbum</i> agg.	pukatea
<i>Senecio biserratus</i>	
<i>Senecio glomeratus</i>	pukatea
<i>Senecio lautus</i> var. <i>lautus</i>	
<i>Senecio minimus</i>	
<i>Senecio quadridentatus</i>	cotton fireweed, pekapeka

Dicot. herbs (other than composites)

<i>Apium prostratum</i> subsp. <i>prostratum</i> var. <i>filiforme</i>	tuutae kooau, New Zealand celery
<i>Beta vulgaris</i>	silverbeet
<i>Callitriche stagnalis</i>	starwort
<i>Calystegia soldanella</i>	panahi, shore bindweed
<i>Cardiomanes reniforme</i>	kidney fern, konehu
<i>Centella uniflora</i>	
<i>Chenopodium ambiguum</i>	
<i>Dichondra repens</i>	Mercury Bay weed
<i>Disphyma australe</i> subsp. <i>australe</i>	horokaka
<i>Epilobium nummulariifolium</i>	
<i>Epilobium pallidiflorum</i>	tawarewa
<i>Galium propinquum</i>	mawe
<i>Gonocarpus incanus</i>	piripiri
<i>Gonocarpus micranthus</i>	piripiri
<i>Haloragis erecta</i> subsp. <i>erecta</i>	toatoa
<i>Hydrocotyle heteromeria</i>	
<i>Hydrocotyle novae-zeelandiae</i> var. <i>novae-zeelandiae</i>	
<i>Hydrocotyle pterocarpa</i>	
<i>Lilaeopsis novae-zeelandiae</i>	
<i>Limosella lineata</i>	mudwort
<i>Lobelia anceps</i>	punakuru
<i>Lobelia angulata</i>	panakenake
<i>Lunaria annua</i>	honesty
<i>Myriophyllum propinquum</i>	
<i>Nertera depressa</i>	
<i>Oxalis rubens</i>	sand oxalis
<i>Pelargonium inodorum</i>	kopata

<i>Persicaria decipiens</i>	tutunawai
<i>Ranunculus acaulis</i>	
<i>Ranunculus amphitrichus</i>	kawariki
<i>Ranunculus macropus</i>	raoriki
<i>Ranunculus reflexus</i>	maruru
<i>Rorippa palustris</i>	hanea
<i>Samolus repens</i> var. <i>repens</i>	makaokao
<i>Sarcocornia quinqueflora</i>	ureure, glasswort
<i>Selliera radicans</i>	remuremu
<i>Solanum americanum</i>	raupeti
<i>Stellaria parviflora</i>	kohukohu
<i>Tetragonia implexicoma</i>	
<i>Tetragonia tetragonoides</i>	
<i>Wahlenbergia violacea</i>	rimuroa

NATURALISED SPECIES

Gymnosperms

<i>Pinus patula</i>	patula pine
<i>Pinus pinaster</i>	maritime pine
<i>Pinus radiata</i>	radiata pine

Dicot. trees and shrubs

<i>Acacia sophorae</i>	coastal wattle
<i>Aira caryophylla</i> subsp. <i>caryophylla</i>	silver hairy grass
<i>Banksia integrifolia</i>	banksia
<i>Berberis glaucocarpa</i>	barberry
<i>Buddleja davidii</i>	buddleia
<i>Chrysanthemoides monilifera</i>	boneseed
<i>Cotoneaster glaucophyllus</i>	cotoneaster
<i>Elaeagnus</i> × <i>reflexa</i>	elaeagnus
<i>Erica caffra</i>	hedge heath
<i>Erica lusitanica</i>	Spanish heath
<i>Leptospermum laevigatum</i>	coast tea tree
<i>Leycesteria formosa</i>	Himalayan honeysuckle
<i>Ligustrum lucidum</i>	tree privet
<i>Ligustrum sinense</i>	Chinese privet
<i>Lupinus arboreus</i>	lupin
<i>Lycium ferocissimum</i>	boxthorn
<i>Paraserianthes lophantha</i>	brush wattle
<i>Paulownia tomentosa</i>	paulownia
<i>Pelargonium</i> sp.	geranium
<i>Rhamnus alaternus</i>	Italian evergreen buckthorn
<i>Rubus</i> sp. (<i>R. fruticosus</i> agg.)	blackberry
<i>Salix cinerea</i>	grey willow
<i>Solanum mauritianum</i>	woolly nightshade
<i>Tecomaria capensis</i>	Cape honeysuckle

Ulex europaeus

gorse

Dicot. lianes

Actinidia deliciosa

kiwifruit

Anredera cordifolia

madeira vine

Araujia sericifera

moth plant

Hedera helix

ivy

Jasminum polyanthum

jasmine

Jasminum sp.

jasmine

Lonicera japonica

Japanese honeysuckle

Passiflora edulis

black passionfruit

Ferns

Azolla pinnata

fern azolla

Osmunda regalis

royal fern

Grasses

Agrostis capillaris

browntop

Agrostis stolonifera

creeping bent

Ammophila arenaria

marram

Anagallis arvensis

scarlet pimpernel

Anthoxanthum odoratum

sweet vernal

Axonopus fissifolius

narrow-leaved carpet grass

Brassica sp.

Briza minor

shivery grass

Bromus diandrus

ripgut brome

Bromus willdenowii

prairie grass

Catapodium rigidum

hard grass

Cortaderia selloana

pampas grass

Dactylis glomerata

cocksfoot

Ehrharta erecta

veld grass

Elytrigia pycnantha

sea couch

Elytrigia repens

couch

Entolasia marginata

bordered panic grass

Eragrostis brownii

bay grass

Glyceria fluitans

floating sweetgrass

Glyceria maxima

reed sweetgrass

Holcus lanatus

Yorkshire fog

Lagurus ovatus

haretail

Lolium perenne

rye grass

Miscanthus nepalensis

Himalaya fairy grass

Paspalum dilatatum

paspalum

Paspalum vaginatum

saltwater paspalum

Pennisetum clandestinum

kikuyu grass

Poa annua

annual poa

Poa pratensis

Kentucky bluegrass

<i>Sporobolus africanus</i>	ratstail
<i>Stenotaphrum secundatum</i>	buffalo grass
<i>Vulpia bromoides</i>	vulpia hair grass

Sedges

<i>Cyperus congestus</i>	purple umbrella sedge
<i>Cyperus eragrostis</i>	umbrella sedge
<i>Cyperus involucratus</i>	umbrella sedge

Rushes

<i>Juncus acuminatus</i>	sharp-fruited rush
<i>Juncus articulatus</i>	jointed rush
<i>Juncus bufonius</i> var. <i>bufonius</i>	toad rush
<i>Juncus effusus</i> var. <i>effusus</i>	soft rush, leafless rush
<i>Juncus tenuis</i> var. <i>tenuis</i>	track rush

Monocot. herbs (other than orchids, grasses, sedges, and rushes)

<i>Agapanthus praecox</i>	agapanthus
<i>Asparagus asparagoides</i>	smilax
<i>Canna indica</i>	canna lily, Indian shoot
<i>Colocasia esculenta</i>	taro
<i>Crocasmia</i> × <i>crocasmiiiflora</i>	montbretia
<i>Hedychium gardnerianum</i>	kahili ginger, wild ginger
<i>Jacobaea vulgaris</i>	ragwort
<i>Kniphofia uvaria</i>	red hot poker
<i>Leontodon taraxacoides</i>	hawkbit
<i>Tradescantia fluminensis</i>	tradescantia
<i>Zantedeschia aethiopica</i>	arum lily

Composite herbs

<i>Aster subulatus</i>	sea aster
<i>Cirsium arvense</i>	California thistle
<i>Cirsium vulgare</i>	Scotch thistle
<i>Conyza parva</i>	smooth fleabane
<i>Conyza sumatrensis</i>	broad-leaved fleabane
<i>Crepis capillaris</i>	hawksbeard
<i>Erigeron karvinskianus</i>	Mexican daisy
<i>Gamochaeta coarctata</i>	purple cudweed
<i>Hypochaeris radicata</i>	catsear
<i>Lactuca serriola</i>	prickly lettuce
<i>Lapsana communis</i>	nipplewort
<i>Leucanthemum vulgare</i>	oxeye daisy
<i>Mycelis muralis</i>	wall lettuce
<i>Osteospermum fruticosum</i>	rain daisy, dimorphotheca
<i>Senecio bipinnatisectus</i>	Australian fireweed
<i>Senecio elegans</i>	purple groundsel

Senecio jacobaea
Senecio skirrhodon
Senecio sylvaticus
Sonchus asper
Sonchus oleraceus
Taraxacum officinale

ragwort
gravel groundsel
wood groundsel
prickly puha
puha, sow thistle
dandelion

Dicot. herbs (other than composites)

Anagallis arvensis
Atriplex prostrata
Cakile edentula
Cakile maritima
Cannabis sativa
Carpobrotus edulis
Cerastium glomeratum
Chenopodium album
Chenopodium ambrosioides
Conium maculatum
Daucus carota
Digitalis purpurea
Epilobium ciliatum
Euphorbia lathyris
Euphorbia pepus
Foeniculum vulgare
Fumaria muralis
Galium aparine
Galium palustre
Lotus angustissimus
Lotus pedunculatus
Ludwigia palustris
Lycopus europaeus
Malva parviflora
Mentha pulegium
Modiola caroliniana
Myosotis arvensis
Nasturtium officinale
Orobanche minor
Oxalis pes-caprae
Pastinaca sativa
Persicaria hydropiper
Persicaria maculosa
Phytolacca americana
Phytolacca octandra
Plantago lanceolata
Polycarpon tetraphyllum
Polygonum aviculare

scarlet pimpernel
orache
sea rocket
sea rocket
hemp, cannabis
ice plant
annual mouse-ear chickweed
fathen
Mexican tea
hemlock
wild carrot
foxglove
tall willow herb
caper spurge
milkweed
fennel
scrambling fumitory
cleavers bedstraw
marsh bedstraw
slender birdsfoot treefoil
lotus
water purslane
gypsy wort
small-flowered mallow
penny royal
creeping mallow
field forget-me-not
watercress
broomrape

wild parsnip
water pepper
willow weed
pokeweed
inkweed
narrow-leaved plantain
allseed
wireweed

<i>Prunella vulgaris</i>	selfheal
<i>Ranunculus acris</i>	giant buttercup
<i>Ranunculus flammula</i>	spearwort
<i>Ranunculus repens</i>	creeping buttercup
<i>Ranunculus sceleratus</i>	celery-leaved buttercup
<i>Raphanus raphanistrum</i> subsp. <i>maritimus</i>	
<i>Raphanus raphanistrum</i> subsp. <i>raphanistrum</i>	wild raddish
<i>Rumex acetosella</i>	sheep's sorrel
<i>Rumex obtusifolius</i>	broad-leaved dock
<i>Schedonorus arundinaceus</i>	tall fescue
<i>Silene vulgaris</i> subsp. <i>vulgaris</i>	bladder campion
<i>Sisymbrium officinale</i>	wild mustard, hedge mustard
<i>Solanum chenopodioides</i>	velvety nightshade
<i>Solanum nigrum</i>	black nightshade
<i>Stellaria alsine</i>	bog stitchwort
<i>Stellaria media</i>	chickweed
<i>Trifolium pratense</i>	red clover
<i>Trifolium repens</i>	white clover
<i>Tropaeolum majus</i>	garden nasturtium
<i>Verbena bonariensis</i>	purple-top
<i>Veronica arvensis</i>	field speedwell
<i>Vicia sativa</i>	vetch
<i>Viola</i> sp.	