

Marine Information Centre Garden - Coastal Plants of Taranaki

All the plants described below grow in coastal Taranaki, most are endemic to New Zealand, and some grow only in a very restricted range.

Main garden area

Most of these plants were grown by Moturoa School in their propagation unit, with the guidance of Bill Clarkson.

Coprosma acerosa

Planted 19 June 2012 by Moturoa School students.

Family: Rubiaceae

Common Name(s): Sand coprosma

Endemic. Occurs in North, South, Stewart and Chatham Islands.

Threat Status: Declining. Rapidly becoming scarce in large parts of its range. Seems to dislike dune reclamation and competition from marram grass.

Low-growing plant of coastal sands. Slender, flexible, sprawling to prostrate, interlacing branches and branchlets, forming a more or less

cushion-like mass up to about 2m diameter, occasionally up to 2m tall. Branchlets numerous, with yellowish brown bark.

Along with many NZ plants, male & female flowers occur on different plants (dioecious). Fruit translucent pale to pale blue, often with darker flecks.

There is a useful interactive key to *Coprosma* species on-line:

www.landcareresearch.co.nz/resources/identification/plants/coprosma-key



Corokia cotoneaster 'Paritutu'

Planted 19 June 2012 by Moturoa School students.

Family: Escalloniaceae

Common name: Paritutu korokio

Endemic to the west coast of the North Island, and recorded as growing in scattered populations from Paritutu Rock to Aotea Harbour, north of Kawhia.

Threat status: unknown, but habitat



modification, interbreeding with cultivated forms, and the scattered nature of the remaining populations could all pose issues.

Much-branched (divaricating) coastal shrub; branchlets rigid, bark dark, rough. Leaves greyish-green.

Leaf undersurface thickly covered in pale greyish-white tomentum (downy hairs).

Flowers star-shaped, bright yellow. Fruit yellow to light orange. Flowering from October, fruiting later.

Euphorbia glauca

Planted 19 June 2012 by Moturoa School students.

Family: Euphorbiaceae

Common names: shore spurge, sea spurge, waiu-atua, sand milkweed

Endemic to New Zealand and the Chatham Islands.

Threat Status: Declining. Status 2004: Serious Decline.

Major threats are browsing and trampling by domestic and feral cattle, sheep, pigs and possums;

coastal development (e.g. road widening) and erosion; competition from taller vegetation. Population fragmentation makes the remnants vulnerable to sudden decline. Some populations on the West Coast of the South Island appear to have succumbed to a fungal disease.

Grows on coastal cliffs, banks and talus slopes, sand dunes and rocky lake shore scarps.

Perennial herb with multiple erect stems up to 1m tall and underground rhizomes. Stems reddish; leaves alternate, a distinctive blue-green colour. Flowers in terminal bunches, each flower surrounded by a deep red cup-like structure with purple glands. Sap a burning milky juice. The red / pink flowers are produced from September to March and fruit from December to July.



Hebe elliptica

Planted 19 June 2012 by Moturoa School students.

Family: Scrophulariaceae

Common Name(s): Kokomuka, shore hebe, shore koromiko

Indigenous; also grows on the Falkland Islands.

Not threatened, although scarce in the North Island - known only from the west coast in scattered locations on the south Taranaki coast, on Kapiti Island, and Titahi Bay.



Occurs coastally in North, South, Stewart, Snares, Auckland and Campbell Islands.
Naturalised on Chatham (Rekohu) Island. Also naturalised on Maatsuyker Island, Tasmania.
Much-branched bushy shrub to 2m tall; leaves often turned to face more or less in one direction.
Flowers white-blue-mauve. Flowering from October on.

Peperomia urvilleana

Planted 19 June 2012 by Moturoa School students.

Family: Piperaceae

Common name: Peperomia

Indigenous. North Island throughout; South Island known only from the Marlborough Sounds and Golden Bay. Also on Raoul Island in the Kermadecs. Also on Norfolk and Lord Howe Islands where it is usually regarded as scarce.

Non-threatened.

Found in coastal and lowland rocky places and light forest, often as a low epiphyte.

Low-growing succulent herb up to 30cm; stems branched, prostrate and rooting, ascending at tips.

Leaves alternate 1-4 x 1-2cm, fleshy (membranous when dry). The tiny flowers occur on slender, solitary spikes 2-5cm long. Fruit brownish. Flowers and/or fruits in all months of year.



Pimelea carnosu

Planted 19 June 2012 by Moturoa School students.

Family: Thymelaeaceae

Common Name(s): pinatoro, New Zealand daphne

Endemic. Three Kings (Manawha Tawhi), North and South Islands to about Otago (but the range appears to be decreasing as all recent South Island records come from North-west Nelson to about Buller and in the east along the Marlborough coast to Ward and Kaitorete Spit).

Not threatened.

Coastal, mostly on cliffs and banks, sometimes on dunes; commonly in short turf on wind- and spray-swept cliff tops together with a range of salt tolerant plants. A small to medium-sized shrub, prostrate or hanging down on banks and cliffs; stems flexible, up to 70cm long.



Flowering September – April/May; flowers mainly white. Fruiting: November – June; fleshy ovoid fruits, opaque white.

Scandia rosifolia

Planted 19 June 2012 by Moturoa School students.

Family: Apiaceae

Common names: Koheriki

Endemic. North Island, from the Three Kings south to Taranaki in the west and the southern Ruahine Ranges in the east.

Threat Status: Declining. Status 2004: Sparse.

This species is extremely palatable and is eaten wherever plants are accessible to browsing animals.

The current assessment of Sparse may no longer be appropriate given the decline from significant parts of its range. The largest naturally occurring populations are cliff bound in sites inaccessible to all browsing animals, even possums. In many

locations it is now represented by only small scattered populations or even single plants. This was the case in Taranaki - one plant remained on the rocky headland cliff at the Maitahi Scientific Reserve on the coast near Okato. This plant has been propagated from seed by Moturoa School students and is being replanted around the coast.

Occurs from the coast to subalpine areas (sea level to 1400m). Usually on cliff faces, clay banks or amongst boulders, often found along cliffs lining river gorges.

Semi-erect to sprawling, woody, aromatic shrub up to 1 x 1m. Stems much-branched; at first ascending soon spreading. Leaves alternate, pinnate, dark glossy green. The white flowers are numerous, in umbels (a carrot-like arrangement). Flowering September - June; fruiting: November – August.



Tetragonia tetragonioides

Planted 19 June 2012 by Moturoa School students (some plants also germinated from seed in the potting mix around other plants).

Family: Aizoaceae

Common names: kokihī, New Zealand spinach, tutae-ikamoana

Indigenous. Kermadec, Three Kings, North, South, Stewart and Chatham Islands. Also present in Australia, the western Pacific, Malesia, Japan and southern South America.

Threat Status: Naturally Uncommon. Status 2004: Sparse.

Threatened by disturbance of coastal sands and stony beaches.

Grows in the coastal strand zone, often along beaches amongst driftwood and seaweed but also in sand dunes, on boulder and cobble beaches, on cliff faces and rock ledges. Cultivated as a vegetable; as a result it often appears as a casual weed of urban areas.

Widely trailing perennial herb forming dense patches of interlacing branches. Branches up to 1 m long, bright to dark green or yellow green. Leaves fleshy, ovate-rhomboid to triangular. Flowers solitary or paired, dark yellow to pale yellow, on short stalks. Fruit leathery and distinctly horned. Flowering October-February; fruiting November-March.

Similar plants: *Tetragonia implexicoma* is similar but is readily distinguished when fruiting by the pink to dark red fleshy, subglobose fruits rather than the dry, leathery and distinctly horned fruits typical of *T. tetragonioides*. *T. implexicoma* flowers also have obvious stalks.



Disphyma australe

Planted 19 June 2012; grown by Bill Clarkson.

NB November 2012: not currently present in the garden, but thriving on the penguin box mounds to the west of Gusto's.

Family: Aizoaceae

Common Name(s): Horokaka, native ice plant, New Zealand ice plant

Endemic. Three Kings, North, South, Stewart and Chatham Islands.

Threat Status: Non Threatened

Grows on the coast (rarely inland). Mostly on cliff faces, rock stacks, and boulder/cobble beaches, more rarely in saltmarsh and estuaries. Often in petrel scrub on offshore islands, and extending into coastal forest around petrel burrows.

Trailing, succulent herb. Short shoots prostrate, rooting freely at nodes. Leaves 3-angled. Flowers 20-40mm diameter. Petals uniformly white to deep pink. Seeds brown, c. 1mm long. Flowers and fruits throughout the year.



Linum monogynum

Planted 19 June 2012; grown by Bill Clarkson.

Family: Linaceae

Common Name(s): Rauhuia, NZ true flax, NZ linen flax

Endemic. North, South, Stewart and Chatham Islands.

Threat Status: Non Threatened

Grows in rocky places and dunes, coastal to inland in low montane areas.

Perennial herb or subshrub up to 40cm tall. Stems branched or simple; branches erect or ascending. Leaves alternate, numerous. White flowers up to 30mm diameter, arranged at tips of branches.



Lobelia anceps

Planted 19 June 2012; grown by Bill Clarkson.

Family: Campanulaceae

Common Name(s): New Zealand lobelia, shore lobelia

Indigenous. Kermadec, Three Kings, North, South and Chatham Islands. Also present in Australia, South America (Chile) and South Africa.

Threat Status: Non Threatened

Grows on the coast and in lowland areas.

Usually in exposed sites on rocky shores, cobble beaches, cliff faces, at the back of saltmarshes in and around seepages. Also along riversides and around inland lakes and/or in seepages within open lowland forest.

Herb forming diffuse to compact patches up to 40cm wide. Stems erect to wide spreading or prostrate, not usually rooting at nodes. Leaves entire or toothed, fleshy green, yellow-green to red-green. Flowers white, pale blue, mauve. Flowering August - May.



Experimental coastal herbfield (in the elevated area surrounded by rocks)

Crassula manaia

Planted 12 July 2012; grown by Bill Clarkson.

Family: Crassulaceae

Endemic. Confined to the south Taranaki coast.

Threat Status: Nationally Vulnerable. Status 2004: Gradual Decline.

Extremely vulnerable to habitat loss through the spread of taller, faster growing weeds. Its survival depends entirely on a delicate balance of maintaining some level of disturbance to retain the open coastal turf communities it requires and yet not allowing too much disturbance which can easily destroy these sensitive habitats.

Found in coastal turf and associated fine silts and gravels.

Often found mixed through the grass *Zoysia minima*.

Moss-like diffuse to dense, compact mats. Stems very fine, rooting at nodes, scarcely ascending at tips, much branched. Leaves succulent, 1-2 x 0.6-1mm. Flowers solitary in leaf axils, 1-1.3mm diameter, pink, reddish or greenish-white. Flowers may be found throughout the year – best seen using a hand lens or a magnifying glass.

Similar to *C. mataikona* with which it sometimes grows. *C. mataikona* is larger, forms more diffuse mats, and its stems are ascending to erect from near the base, 10-30 mm tall.



Myosotis pygmaea

Planted 12 July 2012; grown by Bill Clarkson.

Family: Boraginaceae

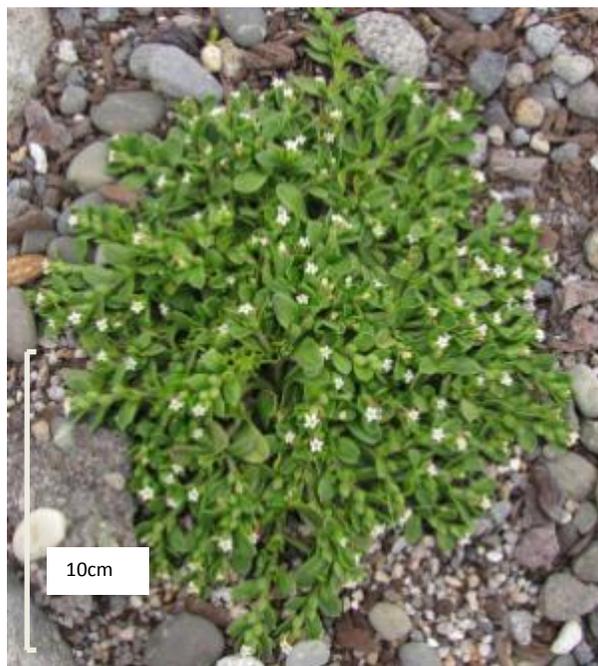
Common Name: pygmy forget-me-not

Endemic. North Island south from the Coromandel Peninsula, including Hawke's Bay, Castlepoint, South Taranaki Coast and near Cape Palliser. South Island, south from Nelson, mainly east of main divide.

Threat Status: Declining. Status 2004: Serious Decline.

The main threat throughout this species range is loss of habitat, caused by land development, weed invasion and coastal erosion.

Found in open coastal habitats to upland grassland, herbfield, open rocky, sandy places and stream sides. Sea level to 1200m.



Ground hugging rosette herb, each plant covering from 1cm to several cm diameter. Few to many prostrate side branches, up to 9cm long. Leaves oval to spoon-shaped; upper surface hairy, lower surface almost hairless. Leaf hairs stiff and spreading. Flowers white to cream, 3mm diameter. Flowering September to December (sporadic flowering may occur throughout the year). Fruiting generally September to January (fruits may be found throughout the year).

Plantago triandra ssp. masoniae

Planted 12 July 2012; grown by Bill Clarkson.

Family: Plantaginaceae

Endemic. North, South and Stewart Islands. N: Taranaki, around Cook Strait, including Cape Palliser. S: NW Nelson, and from Marlborough to Southland. Found in coastal turf.

Rosette herb, usually flat, 1-10cm diameter. Leaves narrow- to broad-elliptic, lanceolate or narrow-ovate, thick and fleshy; margin entire in seedling, usually but not always becoming toothed to strongly pinnate in flowering stage; leaf-hairs few or numerous, on raised transverse ridges opposite bases of teeth. Size, texture, and shape of the leaves change with age of plant, habitat and season. Flowers mostly hidden by long stem-hairs. Stem of flower scarcely elongates when fruiting.



Zoysia minima

Planted 11 October 2012; sourced from Stent Rd.

Family: Poaceae

Common Name: zoysia

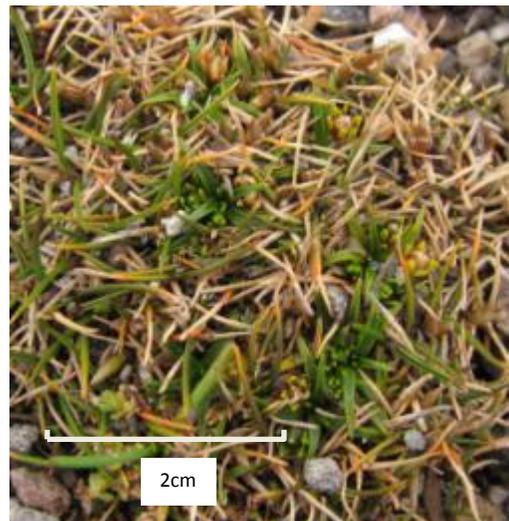
Endemic. North Island south from Auckland and Coromandel. South Island scattered from Nelson, Marlborough south to Central Otago.

Threat Status: Non Threatened

Found on the coast to inland on sand dunes, sandy ground, and gravel, from sea level to 600m.

Forms brownish green mats. Leaf 1-3cm x 1 mm. Seed stalk 2-5cm, straw coloured, usually 1-3 seeds per stalk.

NB The picture also shows several plants of *Colobanthus muelleri*, which are the rosettes of larger, darker green, more triangular leaves.



Colobanthus muelleri (collected by chance in one of the small patches of *Zoysia*; same planting date & source)



Family: Caryophyllaceae

Endemic. North, South, Stewart and Chatham Islands. Plentiful on shores of Cook Strait. Cheeseman (1925) says "not uncommon from Manaia (Taranaki) ... and the East Cape southwards "

Grows in *Zoysia* turfs, on coastal cliffs and fixed shingle.

Distinct flat rosettes, 1-2cm across. Leaves green, firm, recurved; blade 10-15 x 1-1.5mm, channelled above when dry, abruptly contracted into colourless apicula (pointed tips) longer than width of adjacent part of leaf. Features including the flowers, which are buried in the rosettes, are best seen using a hand lens or a magnifying glass.

Other Resources

Interactive keys are available on-line for some plants, e.g. Coprosmas (see the link under *Coprosma acerosa*). A key to flowering plant genera can be found here:

www.landcareresearch.co.nz/research/biosystematics/plants/FloweringGenera/Flowering%20genera.html

Family trees can be useful to understand relationships, e.g. *Peperomia* is related to *Macropiper*. Enter *Peperomia urvilleana* into the name search, then click on the name in the records displayed, and information about the plant comes up in the main pane, with family tree in the right hand pane.

nzflora.landcareresearch.co.nz/default.aspx?NavControl=search&selected=NameSearch

Botanical Glossary

See www.nzpcn.org.nz/help_glossary.asp

References

www.nzpcn.org.nz

www.taranakiflora.co.nz

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