

# Macrolearia chathamica

## COMMON NAME

keketererehe

## SYNONYMS

*Olearia chathamica* Kirk, *Olearia chathamica* Kirk var. *chathamica*, *Olearia chathamica* var. *dendyi* Cockayne, *Olearia oporina* Hook.f.

## FAMILY

Asteraceae

## AUTHORITY

*Macrolearia chathamica* (Kirk) Saldivia

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

Yes

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## NVS CODE

OLECHA

## CHROMOSOME NUMBER

2n = 108

## CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Vulnerable | Qualifiers: IE, PD

## PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Declining | Qualifiers: IE, PD

2009 | At Risk – Declining | Qualifiers: IE, PD

2004 | Range Restricted

## BRIEF DESCRIPTION

Flat-topped small tree with narrow leathery saw-edged dark green leaves that are white underneath and large whiteish daisy-like heads inhabiting the Chatham Islands. Leaves 2.5–8 cm long by 1.5–4 cm wide, widest at middle, many even small thick teeth along edge. Flowers 3–4.5 cm wide, petals white, centre purple.

## DISTRIBUTION

Endemic. New Zealand: Rēkohu / Wharekauri / Chatham Island where it is known from the southern tablelands, Rangihaute / Rangiauria / Pitt Island, Maunga're / Mangere Island, Tapuaenuku / Little Mangere Island, Hokoreoro / Rangatira / South East Island.

## HABITAT

Colonising rocky spurs, steep coastal cliffs and scarps, valley heads or open disturbed forest overlying forest peat soils. Mostly colonising sites that are steep or rocky so inaccessible to stock. *Olearia chathamica* avoids waterlogged ground and peat bogs, though occasionally it has been found on the margins of sphagnum bogs, or fringing lake shores where it grows on steep sided scarps.




Rangaika, Chatham islands. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



*Olearia chathamica*. Photographer: Peter J. de Lange, Licence: CC BY-NC.

## DETAILED DESCRIPTION

Small, much-branched tree 6–8 m tall with broad spreading canopy (trees usually broader than tall), trunk erect often sinuously curved, up to 0.3 m d.b.h., near base, clad in stringy bark, bark grey, yellow-grey or dark grey, flaking in long strips that detach from base. **Branches** numerous, virgate, erect (often forming a tight interlocking canopy), (5)–6–(8) mm diameter, terete, brittle, young branches densely invested in white, appressed to patent floccose tomentum; tomentum shedding as branch matures. **Leaves** alternate, subsessile, coriaceous, arranged in shortly spaced spirals at branch apices; petiole 1.8–3.2 × 6–8 mm, base buttressed (raised as a small collar), otherwise plano-convex, densely covered in white, appressed floccose hairs; lamina 70–100–(120) × 16–20–(30) mm, lanceolate, elliptic, oblong-lanceolate or oblong-ovate, acute, adaxially light to dark green, glossy, initially sparingly furnished with caducous white, appressed floccose hairs along midrib and lamina margins, maturing glabrous, margins serrate in distal , sometimes for entire length, teeth blunt, in 18–22 or more unequal pairs; apex acute; base attenuate. **Inflorescences** terminal, subterminal, axillary. **Peduncules** 50–80–(90) mm long, erect or curved, stout (6–8 mm diameter), terete, white tomentose, bracteate, bracts 3–5 or more, lanceolate, linear-lanceolate to deltoid, entire or toothed, teeth, 3–4 or more, surfaces clad in caducous white, appressed tomentum, otherwise glossy green to dark green. **Capitula** (50)–60 mm diameter. Involucrellum obconic, involucrellal bracts imbricate, numerous, up to 10 mm long, narrowly lanceolate, acute, abaxially clad in spreading, cobwebby white hairs, apex acute, glabrous green; ray-florets (60)–80–100, (8)–12–16 × 4–5–(6) mm, glabrous, usually slightly decurved toward apex, linear, linear-oblong, oblanceolate, apices acute, subacute to obtuse usually minutely retuse and mucronate, mucro minute; surfaces usually white, sometimes white-tinged lavender, lavender and then fading to white after anthesis, very rarely purple (var. *dendyi* race); disc-florets (20)–22–26, corolla, aubergine, purple to dark violet (almost black) anthers dark orange yellow, stigma magenta. **Cypselas** (3.5)–4.0–5.8 mm long, narrowly oblong-obtriangular, narrowly oblong-obovate, compressed, often biconvex, base cuneate, with 9–11 ribs, ribs obscuring surface, otherwise smooth, sparsely to moderately furnished with short, white antrorse hairs, densely glandular, ribs pale orange-yellow to tan. **Pappus** 3.5–5.5 mm long, pale orange-yellow to pale brown.

## SIMILAR TAXA

Very close to *teteaweka* (*Macrolearia angustifolia*) and *Macrolearia oporina* both coastal species endemic to the Stewart Island/Rakiura, Foveaux Strait and Fiordland coastline. Differing from those species by the shorter, broader leaves, and from *M. oporina* by the mainly elliptic or oblanceolate-elliptic leaves, whose margins have shallow sinuses; and by the aubergine-coloured rather than usually yellow disc-florets (however sometimes these may be purple)—see comments by Saldivia et al. (2022). On the Chatham Islands *keketererehe* could only be confused with *hangatere* (*Macrolearia semidentata*). *Hangatere* is a spindly, sparingly branched shrub growing up to 2 m tall, which has shorter leaves which are sparingly, or coarsely toothed in the upper half to third shorter, and dark mauve (rarely pink) ray florets. Occasional hybrids between *hangatere* and *keketererehe* have been collected, notably from Rangaika where the ranges of both species overlap due to past land disturbance along the fringes of a restiad bog.

## FLOWERING

October–March

## FLOWER COLOURS

Violet/Purple, White

## FRUITING

November–April

## THREATS

*Keketererehe* is threatened by fire, browsing animals (sheep, cattle, pigs and possums) and land clearance for farming. Forest degradation on the southern tablelands, as a consequence of unrestricted stock access, and feral animals also threatens this species. Recruitment failure in many populations has resulted in moribund stands verging on the point of collapse. The species is now secure only on cliffs east of Rangaika on Rēkohu / Wharekauri / Chatham Island, the southern and south-western coastal portion of Rangihau / Rangiauria / Pitt Island, and on Maunga're / Mangere Island and Hokoreoro / Rangitira / South East Island.

## ETYMOLOGY

**chathamica**: From the Chatham Islands

## WHERE TO BUY

Not commercially available.

## ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 28 April 2022. Description by P.J. de Lange (28 April 2022)

## REFERENCES AND FURTHER READING

Saldivia P, Wagstaff SJ, Breitwieser I, Orlovich DA, Lord JM. 2022. A Generic Taxonomic Synopsis of the *Pleurophyllum* Clade (Asteraceae: Astereae: Celmisiinae) with the Recognition of the New Zealand Endemic New Genus *Macrolearia*. *Systematic Botany* 47(2): 607–634. <https://doi.org/10.1600/036364422X16512564801722>.

## NZPCN FACT SHEET CITATION

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<https://www.nzpcn.org.nz/flora/species/macrolearia-chathamica/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/macrolearia-chathamica/>