

Atriplex buchananii

COMMON NAME

Buchanan's orache

SYNONYMS

Chenopodium buchananii Kirk, *Atriplex buchananii* var. *tenuicaulis* Petrie

FAMILY

Amaranthaceae

AUTHORITY

Atriplex buchananii (Kirk) Cheeseman

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

ATRBUC

CHROMOSOME NUMBER

2n = 18

CURRENT CONSERVATION STATUS

2012 | Threatened – Nationally Vulnerable | Qualifiers: DP, RR, Sp

PREVIOUS CONSERVATION STATUSES

2009 | At Risk – Naturally Uncommon

2004 | Sparse

DISTRIBUTION

Endemic. North, South, Stewart and Chatham Islands

HABITAT

An annual or short-lived perennial plant found in open, often heavily salt enriched, poorly draining clay or gravel/rock strewn ground. *Atriplex buchananii* is primarily a coastal species of open turfs or gravel field at or near the high tide mark. It is also frequently found on offshore islands growing in guano enriched soils or bare guano splattered rock. This species is also found inland in Central Otago on open ground usually within salt pans and slicks or on other salt enriched soils.



Plants growing in salt encrusted gravel just above high tide mark, Miramar Peninsula, north of Seatoun, Wellington. Photographer: Gillian M. Crowcroft



Chatham Islands. Photographer: John Sawyer

FEATURES

Annual or perennial, prostrate, procumbent to sub-erect creeping, mat-forming herb forming patches up 30 mm diameter. All parts initially covered in densely white to greyish farinose, mealy scales, these shedding on stems and old leaves with age. Stems much branched, fleshy at first becoming wiry and pliant with age, terete, very slender (appearing delicate), woody at base in perennial plants, with old stems covered in orange bark. Petioles 0-3 mm long, fleshy. Leaves 1-10(-20) x 0.5-6(-15) mm, white, whitish-grey, grey or white-green above, uniformly pale white-grey beneath, orbicular, broad-elliptic, broad-ovate, obovate to broadly lanceolate, margins entire; base subcordate to rounded or broad-cuneate; apices obtuse to acute. Flowers in leaf axils, solitary or in glomerules (clusters) of 2-10. Male flowers usually sub-terminal to terminal; perianth 1-1.5(-2) mm long, white, whitish-grey to grey; segments cut to ½ length of perianth tube. Stamens (3-)5, filaments and anthers sulphur-yellow. Female flowers 1 mm long, pale grey or whitish-grey, inconspicuous, style bearing 2 white, stigmas. Fruiting bracteoles rhombic-triangular, margins finely dentate. Fruit c. 1 mm diameter, circular to sub-circular; pericarp chartaceous and easily removed. Seed surface (testa) brown, red-brown to brownish-green

SIMILAR TAXA

Rather distinctive but it may be confused with *Einadia* Raf., particularly *E. allanii* (Aellen) Paul G. Wilson which may grow in similar habitats. From *Einadia*, *Atriplex buchananii* can be distinguished by its usually much smaller stature, whitish-grey, mealy stems and foliage (rather than glaucous green to brown-green stems and foliage), axillary (rather than terminal) flowering habit, with flowers solitary or in glomerules (never in terminal spikes).

FLOWERING

December - May

FLOWER COLOURS

Grey, White

FRUITING

January - August

LIFE CYCLE

Spongy nutlet dispersed by water and possibly also wind and granivory (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easy from fresh seed and tip cuttings but fickle to maintain. Best grown in a pot placed in full sun. Can tolerate waterlogging but is best in free draining soil when in cultivation. Some of the larger forms found along the Otago and Southland coast come true from seed and are well worth growing as a ground cover in open clay soils.

THREATS

Generally uncommon and sporadic in its occurrences, though more common from Otago south to Stewart Island. Some populations are threatened by urban development and many by weeds

ETYMOLOGY

atriplex: From an ancient Latin name whose derivation is uncertain, but a possible explanation is the name comes from the Greek a- 'without' and traphein 'nourishment' because many of these species grow in arid desert soils

buchananii: Named after John Buchanan (13 October 1819-1898) who was a New Zealand botanist and scientific artist and fellow of the Linnean Society.

WHERE TO BUY

Not commercially available.

NOTES

Although there does not seem to be any sense in recognising as distinct var. *tenuicaulis* (which seems to represent one extreme of the species), *A. buchananii* is rather variable and very large-leaved forms have been found which come true from seed along parts of the Otago/Southland coast.

ATTRIBUTION

Fact sheet prepared by P.J. de Lange for NZPCN (1 June 2013)

REFERENCES AND FURTHER READING

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 2009 Vol. 11 No. 4 pp. 285-309

CITATION

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MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/atriplex-buchananii/>