Achyranthes velutina

COMMON NAME
Devils horsewhip

SYNONYMS
Achyranthes indica (L.) P. Mill., Centrostachys aspera (L.) Standl.

FAMILY
Amaranthaceae

AUTHORITY
Achyranthes velutina Hook. et Arn.

FLORA CATEGORY
Vascular – Native

ENDEMIC TAXON
No

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

STRUCTURAL CLASS
Dicotyledonous Herbs other than Composites

NVS CODE
ACHVEL

CHROMOSOME NUMBER
2n = 42

CURRENT CONSERVATION STATUS
2012 | At Risk – Naturally Uncommon | Qualifiers: SO

PREVIOUS CONSERVATION STATUSES
2009 | Non-resident Native – Coloniser | Qualifiers: SO
2004 | Non-resident Native – Coloniser

DISTRIBUTION
Known in a natural state only from Macauley Island in the southern Kermadec Island group. A. velutina is known from throughout the Pacific. It is A. velutina not A. aspera L. that was recorded once as naturalised from Silverdale in North Auckland in 1960.

HABITAT
Amongst sea bird burrows on the margins of steep cliffs in association with grasses and sedges.
FEATURES
Small, much branched, monoecious shrub. Rootstock stout, woody. Stems somewhat succulent at first, ribbed becoming basally woody with age ribbed, densely covered in velutinous, appressed hairs. Petioles 5-10 mm long, pink, fleshy, velutinous, basal abscission zone evident. Leaves opposite, spreading to decurved, densely clustered toward branch tips, 40-50 x 25-30 mm, dark green, green or purple-grey, margins often, suffused with pink or red, mostly broadly ovate, ovate-orbicular or elliptic; apex blunt to abruptly subacute, sometimes shortly apiculate; base attenuate; lamina fleshy, veins distinct, often purple, upper and lower surfaces silky canescent, margins crenulate to crenate. Inflorescence a terminal erect spike, 150-200 mm long. Peduncle 15 mm long, fleshy, white-villous; spike rachis fleshy, white-villous to purple-villous; flowers bisexual, retrorse, sessile, c. 180-200 per spike, initially spaced at 10 mm intervals this diminishing to < 1 mm intervals toward inflorescence apex. Bracts persistent on rachis, 3-3.5 x 0.5-1 mm, ovate to lanceolate, strongly retrorse, chartaceous, weakly keeled near apex only, pale white, margins entire, apex acute, sometimes with a small 0.1-0.2 mm long pale yellow mucro. Bracteoles 2; abscissing with senescent flowers; 0.2-1 mm long, broadly ovate, chartaceous hyaline, lustrous, pale caramel; margins entire; strongly keeled, keel lustrous, caramel brown, extending well beyond bract as a hardened, channelled, strongly recurved, falcate spine 4-5 mm long. Perianth segments (sepals) 5, lancelate, central portion pale caramel-brown, distinctly pink-tinged, margins pale yellow or off-white opaque, hyaline; segments subequal, 4.5-6 mm, channelled. Stamens 4, fused at base, filaments 0.5-1 mm, alternating with 4 narrowly spathulate 0.4 x 0.6 mm white-hyaline, petaloid, fimbriate-margined pseudostaminodes; anthers 0.4-0.6 mm, yellow. Style 0.6-1 mm, pink to pale orange, arising from a fleshy papillate style base 0.8 mm diameter; stigma brown, truncate. Utricle 2-2.5 mm, dark brown, turbinate, chartaceous, surmounted by the dry somewhat woody, style base. Seed 1.2-1.8 x 0.9-1.2 mm, dark chesnut brown, ovoid to ellipsoid.

SIMILAR TAXA
None. Macauley Island plants were initially treated as A. aspera (de Lange et al. 2004) adopting a broad circumscription advocated by most world flora treatments. Since then it is evident that A. aspera s.s. is distinct from Macauley plants which are now referred here to A. velutina (Barkla et al. 2008). Achyranthes aspera differs from A. velutina by its annual, more gracile growth habit, smaller size, and much less pigmented, glabrescent foliage. It is not known from New Zealand.

FLOWERING
Throughout the year

FLOWER COLOURS
Orange, Red/Pink

FRUITING
Throughout the year

LIFE CYCLE
Spiny utricles are dispersed by attaching to fur, feathers and clothing (Thorsen et al., 2009)

PROPAGATION TECHNIQUE
Easy from cuttings and seed. Potentially an aggressive weed in warm climates.

THREATS
This species is only known from a single natural occurrence in New Zealand, Macauley Island in the Kermadecs. It is under no obvious threat and is apparently a recent example of a natural long distance dispersion with subsequent successful establishment on this island.

WHERE TO BUY
Not commerically available.

TAXONOMIC NOTES
The North Island record of Achyranthes aspera in the Webb et al. (1988) is also referred here to A. velutina, and in what is perhaps a rather unusual situation for the flora of New Zealand, is regarded as naturalised. Macauley plants are regarded as indigenous (see de Lange et al. 2004; Barkla et al. 2008).

ATTRIBUTION
Fact Sheet prepared for NZPCN by P.J. de Lange 1 January 2005. Description from de Lange et al. 92004) - as Achyranthes aspera (see taxonomic notes)
REFERENCES AND FURTHER READING

CITATION
Please cite as: de Lange, P.J. (Year at time of access): Achyranthes velutina Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. https://www.nzpcn.org.nz/flora/species/achyranthes-velutina/ (Date website was queried)

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