

A new record for *Eleocharis neozelandica* a dynamic sedge of coastal wetlands

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While surveying the sand dunes of Great Barrier Island in January, DOC ranger Perry Duggan and I located a population of the sand spiked sedge, *Eleocharis neozelandica* (AK 236524). The sedge was growing beside a freshwater swale, at the mouth of a small stream, near Claris. Previously the only populations ever recorded from Auckland Conservancy were at Whatipu.

E. neozelandica is a small leafless sedge, with tufts of rigid flowering stems, growing up to 7 cm tall. It is ranked as Vulnerable (Cameron et al. 1995) and has a current distribution from the Far North to Farewell Spit, with locations in between at Manawatu, Auckland and Great Barrier Island¹. The species stronghold is in the Far North (Lisa Forester pers. comm., 1999). It is a species of otherwise bare areas in damp sand associated with freshwater outlets at coastal wetlands (Wilson & Given 1989). Recent research shows it is an early colonising species in periodically disturbed areas, e.g. young wetlands with low vegetation cover (Singers 1998).

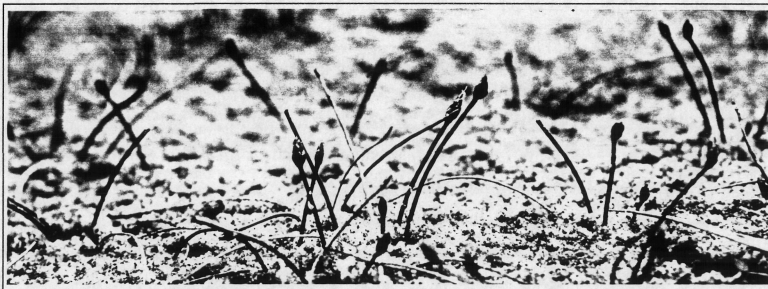
The sand spike sedge at Claris grows most densely in a monoculture in the centre of the population,

and as it radiates out, gets more sparse and is associated with *Carex pumila*, *Juncus articulatus*, and *Isolepis nodosa*. There was no sand spike sedge where the *Carex* was most dense. *C. pumila* is a natural sand binder and its presence at this site indicates that the soil surface will probably rise (and thus the water table will lower), making conditions less favourable for the sand spike sedge. It is a primary colonist and resents this competition from other vegetation. To maintain itself in the environment, the sand spike sedge seems to rely on a strategy of responding to disturbance and colonising new wetlands (Singers 1998).

Threats to this species include trampling by horses and 4WD vehicles (Forester pers. comm., 1999), and at times rabbit browse (Pegman 1996, Singers 1998). Lack of suitable habitat has also been noted as a limiting factor in its distribution (Singers 1998). It is likely the sand spike sedge grows elsewhere on the Great Barrier Island, and it is interesting to speculate how it got to this site. Singers (1997) proposed that wetland birds such as brown teal (present on Great Barrier Island) may act as dispersal agents. This species, being quite cryptic, may have been merely overlooked in the past.

Acknowledgements

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Eleocharis neozelandica, Kaitoke Beach, 19 Jan 1999, R. J. Stanley

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¹ It was also once found in Christchurch.