and then, in *D. avenoides*, can cause one to suppose there might be four rather than two bristles to the lemma apex.

4. Finding the *D. avenoides* rachilla prolongation for the first time is a memorable experience. It is located at the front of the lemma, i.e., on the opposite side to the awn. The back of the palea has a deep groove in which it stands. Its long hairs are conspicuous, but do not confuse them with the hairs that arise from the edge of the callus; these latter ones do not exceed c. 1/3 of the lemma. Sometimes too in dissection the sides of the lemma shatter to form longitudinal strips but these do not carry hairs.

D. quadriseta used to be "very common" in Auckland's original grassy and scrubby bracken cover at the time of European settlement (Kirk, cited by Esler 1991). Nowadays it has to be searched for, in the gumland scrub and road cuttings of the Waitakere foothills and along the clay clifftops of the Manukau.

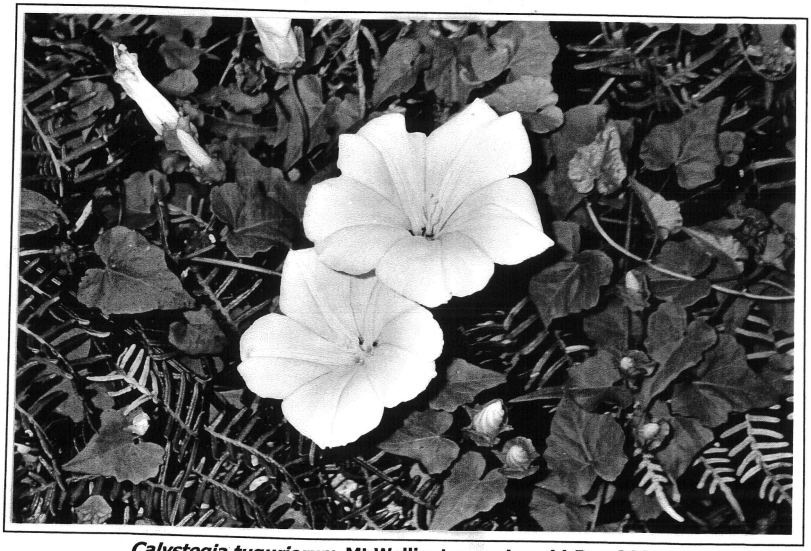
D. avenoides was not mentioned by Kirk; to judge by the AK collections Great Barrier would seem to be its stronghold in the larger region.

References
Edgar, E., Connor, H. E. 2000: Flora of New Zealand. Vol. V Gramineae. Manaaki Press, Lincoln.
Esler, A. E. 1991: Changes in the native plant cover of urban Auckland, New Zealand. N.Z. J. Botany 29: 177--196.

Calystegia tuguriorum in Auckland

Mike Wilcox

Calystegia tuguriorum (Forst.f.) Hook.f. (Convolvulaceae) is one of the native bindweeds. It also occurs in Chile. The small heart-shaped leaves, showy white flowers and yellow seeds are characteristic. The leaves are sometimes blistered through attack by an insect or mite. In Auckland, this low scrambler is usually encountered on basalt volcanic rock terrain, typically at forest margins or in open, rocky sites. It is plentiful in the rock forest at the Otuataua Stonefields, Mangere, has been recorded from Almorah Rd rock forest in Mt Eden, and is abundant in the crater of Mt Wellington where it is a fine sight when in full bloom. Ti Point, Whangateau Harbour, is another place where it occurs, again on open rocky outcrops.



***Calystegia tuguriorum*, Mt Wellington crater, 11 Dec 2001**