

Palmers) are now known to support populations of sand tussock. 146 plants were counted at Palmers making this the largest population on Great Barrier; Kaitoke has 60 plants, Whangapoua 14 and Medlands 6 (Cameron 1999).

Observations of the habitat of this grass in Auckland support theories that this species prefers undisturbed sand dunes (Bergin 2000). Since stock and people have been excluded from the dunes at Pakiri seedlings have germinated around the two adult plants (*pers. obs.*). The stronghold in the

Conservancy remains Great Barrier, where populations are found on its remote, and consequently undisturbed, beaches. The high-level of modification by humans either directly, or indirectly by weed and pest invasion, probably explains its disappearance from the Auckland mainland. *Austrofestuca littoralis* is classified as Declining (de Lange *et al.* 1999) reflecting the fact it is a plant of an ecosystem that continues to be threatened by our general regard for sand dunes as recreational areas.

References

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Sand tussock Records for Auckland Conservancy

Auckland Mainland:

Auckland Isthmus and the North Shore. Kirk, T. 1871

Waitakere River Mouth, Te Henga. Thomas, A. P. 1902 (AKU 6867)

Waiuku. Petrie, D. n.d presumably early 1900's (AK 152717)

Titirangi District. Cheeseman, T. F. 1871

Pakiri Beach Stanley, R. J. 2001 (AK 252596).

Medlands. Stanley, R. J., Duggan, P. 1999 (AK 236522)

Palmers. Stanley, R. J. 2000 AK 251559)

Whangapoua. Cameron, E. K. 1986 (AKU 19604),

1992 (AK 209409).

Inner Gulf Islands:

Kawau Island. Buchanan, J. 1875

Rangitoto Island. Cheeseman, 1874

Waiheke Island. Kirk, T. 1878

Great Barrier Island:

Kaitoke. de Lange, P. J. 1995 (AK 228099)

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The khat tree in Auckland

Mike Wilcox

I had a phone call in January from a friend in Epsom whose neighbour had a tree problem. The trouble was that Africans were regularly coming on to his place, often at night, and taking leaves off one of his ornamental trees. On visiting the tree, my initial suspicion was confirmed – the tree was a fine 8 m-tall specimen of khat (*Catha edulis*) (Fig. 1).

Khat ("cot"), also called kaht, chat, cafta, qat or Arabian tea, belongs to the family Celastraceae. It is an evergreen tree or shrub growing to 15 m tall, with weeping branches, and bronzy green foliage. The leaves are shiny, oval, opposite, 5-10 cm long, slightly toothed, and become tinted red in winter. The stem and bark is also reddish. The very small,

white flowers, are 5-merous, in 8 cm cymes borne from bases of the leaves. The fruit is a capsule, 8 mm long.

So much for what the tree looks like, but what were the African visitors after? Khat occurs at 1500-2000 m in mountains of eastern and southern Africa, and south Arabia, and also in Somalia (Krikarian 1973a, 1973b). It is also cultivated in these places, and in the Moslem countries of North Africa, where the leaves are used as a mild stimulant, both chewed fresh, or brewed like tea. The leaves and young shoots are widely used as a stimulant, and the leaves are used in the treatment of depression, fatigue, obesity and gastric ulcers. The khat

alkaloids, cathinone and norpseudoephedrine increase blood coagulability. Side-effects of high usage include insomnia, anorexia and depression. However, a study sponsored by the US National Institute of Drug Abuse found few signs that khat produces any serious physical or psychological side-effects.

In Yemen it is estimated that 80 per cent of the adult population uses khat, and its production and sale accounts for about 30 per cent of the domestic economy. Much of the daily rhythm of life revolves around what is called "the chew" and its attendant rituals (Weir 1985). Sessions can last for hours. The chew starts after lunch and lasts until late afternoon when the men go home to their women folk who have been indulging in their own chew.

The legal status of khat in New Zealand is that, under the Misuse of Drugs Act (1975), Order 1981/114, the plant is a Class C controlled drug (the same status as *Cannabis* plant and coca leaf). This means that its cultivation for the purposes of drug

production or supply, or the importation as fresh or dried leaves, is prohibited (Anon. 1998). There are more than 1500 Somalis and Ethiopians in the country, most of them political refugees, and the Customs Department has warned these immigrants that they may be prosecuted if they continue to receive supplies of khat from overseas. Packages of khat via Melbourne have been regularly seized at the International Mail Services Centre at Auckland Airport. Most of the consignments had been addressed quite openly to members of the local community. The packages, declared as "medicine" or "plant," had attracted the attention of the Ministry of Agriculture and Forestry for fumigation. Much of the khat is a gift from friends and relatives in Africa and Arabia who may not realise the leaf is illegal in New Zealand.

Under Section 9 of the Misuse of Drugs Act, *Catha edulis* is not listed as a plant that is prohibited from cultivation in New Zealand (unlike *Cannabis sativa* or *Erythroxylon* species (coca)).



Fig. 1: Khat (*Catha edulis*)

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