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Short communication

To what New Zealand plant does the vernacular "scurvy grass" refer?

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Abstract The term "scurvy grass" is used widely in New Zealand as a vernacular for the formerly widespread brassicaceous herb *Lepidium oleraceum*. We show that historical usage of this vernacular was not necessarily confined to this species or genus, thereby illustrating the need for caution in using historical accounts to help determine past abundance, ecology, and distribution.

Keywords Vernacular names; scurvy grass; *Lepidium*; *L. oleraceum*

INTRODUCTION

Vernacular or common names can be a cause of considerable confusion in botany, often because either the same common name has been applied to more than one plant or because different common names are used to describe the same plant (Parham & Healy 1976). Similar problems also occur with Maori names (Beever 1984, 1991; Anon. 1993). A further difficulty occurs in attempting to understand historical usage of common names, especially when they were applied to plants prior to their being formally described. While assembling information for an account of the conservation of coastal New Zealand *Lepidium* species (Norton et al. in press), we have come across this historical problem with the use of the vernacular "scurvy grass", and it has been necessary for us to determine what was meant by scurvy grass before we could evaluate evidence for changes in the status of coastal *Lepidium* species.

In this communication, we evaluate what plant(s) the vernacular scurvy grass was applied to by the early European voyagers who visited New Zealand in the late eighteenth and early nineteenth centuries. Did the vernacular scurvy grass refer to *Lepidium oleraceum* Sparrm. as is commonly assumed, at least since Kirk (1899), or was it more broadly used to include a range of taxa that were used as green vegetables? This is important as the taxonomy of what we now call *L. oleraceum* had not been resolved at the time of early European visits, and it is the accounts from these visits that provide us with an insight into the abundance of *Lepidium* at the time of first European contact.

EARLY USE OF "SCURVY GRASS"

One of the main problems facing early explorers such as James Cook was ensuring that their crews did not suffer from scurvy (Begg & Begg 1969). Plants that could be eaten as fresh greens were, therefore, eagerly sought in new lands. Plants in the Apiaceae and Brassicaceae were particularly popular because they were well known as green vegetables in Europe. The vernacular name scurvy grass appears to have been collectively used for all edible greens but especially those brassicaceous herbs which resemble the European scurvy grass *Cochlearia* (Gillham 1965), although current usage of the vernacular appears to be restricted to *Cochlearia officinalis* L. (Brassicaceae), *Stellaria holostea* L. (Caryophyllaceae), and *Galium aparine* L. (Rubiaceae) (Grigson 1975).

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On his first voyage, Cook stopped in Tierra del Fuego (South America) prior to entering the Pacific, and Joseph Banks noted (14 January 1769):

"Here is also plenty of wild celery apium antescorbuticum, scurvy grass cardamine antescorbutica, both of which are as pleasant to the taste as any herbs of the kind found in Europe and I believe possess as much virtue in curing the scurvy" (Beaglehole 1962a: 217).

Beaglehole notes that *Apium antescorbuticum* Hort. is *A. prostratum* Vent. (now referred to *A. australe* Thouars. in South America, Short 1979), and that *Cardamine antescorbutica* Banks et Sol. ex Hook.f. is *C. glacialis* (G.Forst.) DC.

Banks also referred to scurvy grass in Tahiti when discussing edible plants (3 June 1769):

". . . and with these [sic] grew several plants we had not seen at Otahite, among them Iberis, which M[r] [sic] Gore tells me is the plant called by the voyagers scurvy grass which grows plentifully upon all the low Islands" (Beaglehole 1962a: 285).

Beaglehole refers the *Iberis* to *Lepidium bidentatum* Montin, which is morphologically similar to *L. oleraceum* (Whistler 1992).

From Tahiti, Cook sailed to New Zealand, to which he returned to on two further occasions. Scurvy grass is referred to in several of the journals kept during Cook's three voyages to New Zealand. In his diary on the first voyage, Cook in describing events at Tolaga Bay (27 October 1769) noted:

". . . the other place I landed at was at the north point of the Bay where I got as much Sellery and Scurvy grass as loaded the Boat" (Beaglehole 1968: 184).

Beaglehole calls sellery *Apium prostratum* and *A. filiforme* (A.Rich.) Hook.f. (= *A. prostratum* subsp. *prostratum* var. *filiforme* (A.Rich.) Kirk, Short 1979) and scurvy grass *Lepidium oleraceum*.

Reflecting on the botany of New Zealand shortly before departing for Australia, Banks commented (30 March 1770):

"Eatable Vegetables there are very few. We indeed as people who had been long at sea found great benefit in the article of health by eating plentifully of wild Celery, and a kind of Cresses which grew every where abundan[t]ly near the sea side." (Beaglehole 1962b: 8).

Beaglehole attributes the celery to the taxa noted above but suggests that "Cresses" were:

"Probably what Cook called scurvy-grass, *Lepidium oleraceum*; other candidates would be a wild cress called Poniu, *Nasturtium palustre* and *Cardamine glacialis* " (Beaglehole 1962b: 8).

Nasturtium palustre DC. is now referred to *Rorippa palustris* (L.) Besser (Garnock-Jones 1978), a common indigenous New Zealand plant. *Cardamine glacialis* is not known in New Zealand but the record may refer to *R. divaricata* (Hook.f.) Garn.-Jones et Jonsell, *C. corymbosa* Hook.f., or taxa within the *C. debilis* DC. aggregate.

Anderson, a surgeon on Cook's third voyage, also discussed edible plants and commented (25 February 1777):

"Of other plants which were useful to us may be reckon'd wild celery which grows plentifully almost in every cove, especially if the natives have ever resided there before, and one which we us'd to call scurvy grass though entirely different from the plant we gave the name to. It however is far preferable to it for common use and may be known by its jagged leaves and small clusters of white flowers on the top" (Beaglehole 1967: 804).

Beaglehole refers the wild celery to *Apium prostratum*, and the second of the two scurvy grasses to *Lepidium oleraceum*.

DISCUSSION

It would seem very likely that *Lepidium oleraceum* was included in the original concept of scurvy grass in New Zealand, but that scurvy grass was in itself non-specific and also referred to other brassicaceous plants and even quite unrelated taxa. For example, in his commentary on Banks' diary Beaglehole noted that in Tierra del Fuego:

"*Cardamine glacialis* DC. 'Scurvy grass' (which Banks had called *Cardamine antescorbutica*) was a loose term applied to many unrelated plants sharing antiscorbutic properties: *Cardamine nasturtioides*, as well as *C. glacialis*; *Oxalis enneaphylla* of the Falkland Islands; *Amaranthus* spp., *Brassica juncea*, *Portulaca oleracea*, *Sesuvium portulacastrum*, collectively called 'verdura' by the Spanish navigators, were all used in the Pacific Islands" (Beaglehole 1962a: 217).

Beaglehole generally interprets the use of scurvy grass in New Zealand to refer to *Lepidium oleraceum*, although at one point in Banks' journal, Banks refers to cresses in the plural which Beaglehole (1962b) suggests may also include *Nasturtium palustre* (*Rorippa palustris*) and *Cardamine glacialis*. Anderson also implies that the name scurvy grass was applied to more than one plant, when in the confusing passage quoted above he comments that what was previously called scurvy