

comprehend such magnanimity in these days when our community leaders sell off the public assets provided for us by our predecessors and raise loans so that future generations will pick up the tab for new facilities we use today. Where have the values of the old days gone? Fortunately, Sir John's legacy to future generations is safe in the hands of a trust - not a public agency!

Identifying *Gahnia setifolia* and *G. xanthocarpa*

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Except in trampers' lore these two large cutty-grasses have never been regarded as other than distinct taxa. But perhaps because they dangle their diagnostic nuts in suggestive and persistent fashion, their numerous vegetative differences (as noted below) have mostly been overlooked.

Both species do well on clay, in the open or in light forest. *G. setifolia* can be abundant on well-drained sandy or volcanic soils, while *G. xanthocarpa* occurs mainly in wetter places, such as kahikatea forest and the edges of upland bogs. In northern New Zealand *G. xanthocarpa* is to be looked for wherever one finds *Astelia grandis* (P. J. de Lange *pers. comm.*) - this works for the three low-altitude Auckland sites I know it at (Moire Park in Massey East, Browns Bay, and Totara Park, Manurewa). Other field tips are that *G. xanthocarpa*, but not *G. setifolia*, is readily eaten by cattle; also that while the young fruiting heads of both can be infected with a smut fungus, this seems to occur much more frequently in *G. setifolia*.

G. setifolia

Leaf sheaths rather stiff, persisting more or less entire, the mature leaves detaching with a pull, breaking at the decayed base of the sheath; outer (abaxial) surface of sheath obscurely longitudinally ridged, rather dull, finely papillose (smooth to fingers, lips and tongue, the papillae not obvious at x 10).

Leaf blades comparatively tough, abaxially darkish green and only somewhat glossy by reason of a thin cover of wax, to c. 2.3 cm wide; in distal half of blade the hyaline marginal thickening comparatively thick, subtriangular, toothed along each side of its outer face; midway along blade the adaxial surface grooved to almost half blade depth, the sides of the groove papillose and with larger teeth on their outer angles, these projections visible at x 10, surface rough to the touch. Culms to c. 4 mm diam. just below panicle; spikelets reddish brown (in fruit becoming darker than those of *G. xanthocarpa*), the 3 innermost glumes around nut us. with a short broad mucro, occ. subrounded; ripe nuts reddish brown, 3.5-4(-4.5) mm long.

G. xanthocarpa

Leaf sheaths comparatively flexible, persisting as subfibrous shredding strips, the mature leaves very difficult to detach; outer (abaxial) surface of sheath closely longitudinally ridged, dull and soft from an obvious (x 10) cover of elongate papillae.

Leaf blades mid-green and glossy, lacking wax, to c. 2.7 cm wide; marginal hyaline thickening comparatively weak and lenticular throughout, with one row of teeth on its outer edge; midway along blade the adaxial surface with shallow grooves, these with obscure (x 25) papillae and without larger teeth, the surface smooth to the touch.

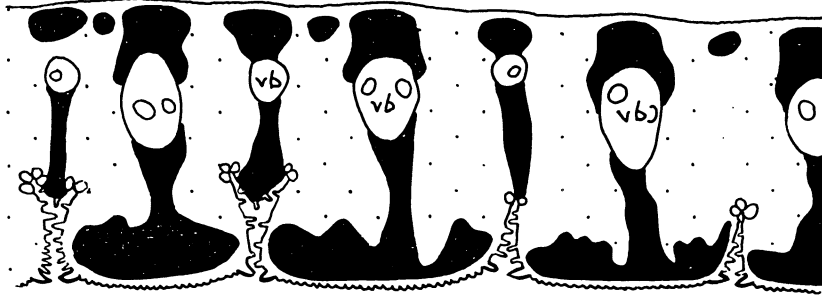
Culms to c. 6 mm diam. just below panicle; spikelets comparatively pale reddish brown, the 3 innermost glumes around nut with a comparatively narrow mucro us. more than 0.25 mm long; ripe nuts black, 5-6 mm long.

Figure (opposite): *Gahnia*, transverse sections of leaf blade (midway) and sheath. Sclerenchyma dark; red-brown (suberized?) tissue striated; ground tissue stippled; vascular bundles vb; air spaces blank. x 100.

G. setifolia. Adaxial surface of blade strongly grooved, papillate and toothed. Abaxial surface of sheath weakly papillate. Based on *ROG #7595*.

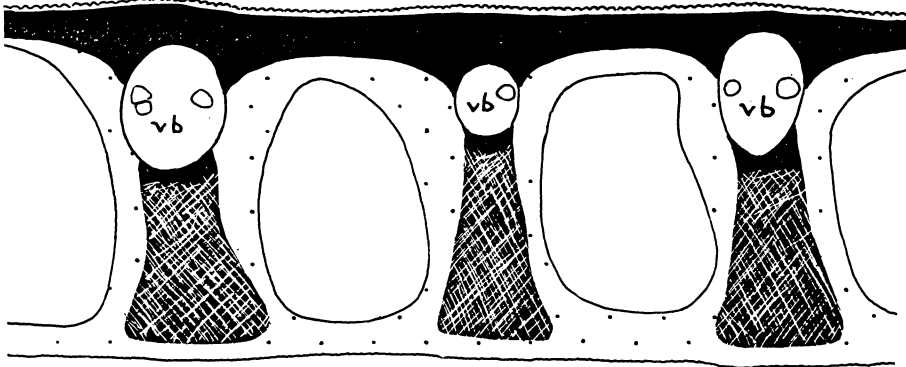
G. xanthocarpa. Adaxial surface of blade weakly grooved, almost smooth. Abaxial surface of sheath with dense elongate papillae. *ROG #7593*.

blade

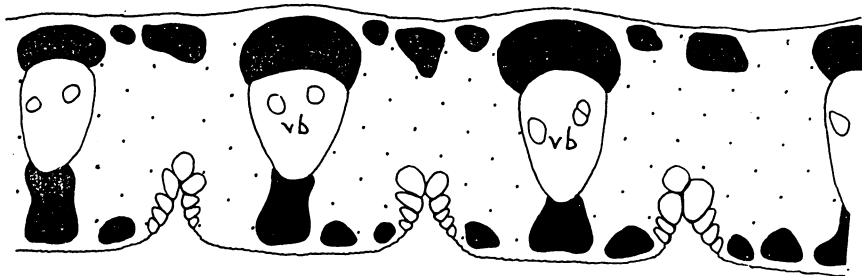


setifolia

sheath



blade



xanthocarpa

sheath

