WILD WATTLES IN THE BAY OF PLENTY

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Species of the genus *Acacia* together with *Paraserianthes lophantha* are commonly referred to as wattles. They are mostly trees but a few are bushy shrubs e.g. kangaroo acacia (*Acacia paradoxa*) and prickly Moses (*A. verticillatum*). Some are planted as ornamental garden trees, others as shelter-belt trees or for timber, but a few species have naturalised, some extensively. The most widespread wattles in the Bay of Plenty are silver wattle (*Acacia dealbata*), black wattle (*A. mearnsii*) and brush wattle (*Paraserianthes lophantha*). These species are conspicuous when flowering but merge into the background for the rest of the year.

Silver wattle is plentiful on roadside and wasteland in the Rotorua district and Whakatane–Taneatua area. It also occurs in other coastal plain areas and Te Aroha and Opotiki Ecological Districts (EDs), but is unexpectedly scarce around Tauranga, although it is present around the northern part of the district in the Athenree Gorge. Its silver-grey, fairly small feathery leaves and clouds of pale to mid-yellow flowers in mid-winter, from July, are its standout features.

Black wattle occurs commonly around Tauranga, Rotorua and from the Rangitaiki Plains to Whakatane and from the Ohiwa Harbour east along the Eastern Bay of Plenty coastal plains. It is also common in the valleys that run up into the hills behind the plains. It is recorded from Waioeka and Whirinaki EDs. It is said to have naturalised from early plantings when the bark was used for tanning. Its foliage is a duller green than that of silver wattle, the tips of shoots have a golden appearance because of golden hairs (Figure 1) rather than the greyish-white tips of silver wattle, and it doesn't begin flowering until silver wattle has almost finished, in September.

Brush wattle is widely naturalised along roadsides and banks, cliffs such as at Matata and other disturbed sites, especially along the coastal plains and in the Rotorua Lakes District. It seeds prolifically, with very long-lasting seeds. Its dark, slightly blue-green, wide, feathery leaves and yellow-green bottle-brush type flower heads from late autumn or early in the winter make it easy to identify.

There are small populations or occasional records of several other species:

Tasmanian blackwood (*A. melanoxylon*) has frequently been planted as shelter trees in rural areas and for timber. Some naturalisation is known in the Rotorua District, Te Aroha ED, Tauranga, the Rangitaiki Plains, Whakatane, and the Ureweras.

Sydney golden wattle (A. *longifolia*) (Figure 2) is present in coastal areas e.g. around Tauranga, Whakatane, and Ohiwa Harbour, and there are records from Te Aroha ED and Waioeka ED.

Coastal wattle (*A. sophorae*) was planted in earlier decades as part of dune stabilisation programmes around Waihi Beach, Mt Maunganui and possibly Waiotahi Spit, because of its low, spreading habit, but now may all have been removed, because of its very effective spread by seed into areas where it was not wanted.

Green wattle (*A. decurrens*) is usually planted as an ornamental for its mass of bright yellow flowers in winter, but a small number of isolated naturalised trees occur in the wider Tauranga and Rotorua areas. It is also reported from Taneatua, Opotiki and Motu EDs.

Prickly Moses, a spiny, shrubby species, was used for hedging in early days and occasional records from the eastern Bay of Plenty are probably remnants from those days or seedlings from them (Heginbotham & Esler). It is no longer present at some old

Figure 1: *Acacia mearnsii.* Spherical flower heads. Golden young shoots.

Figure 2: *Acacia longifolia*. Flowers in cylindrical spikes.

record sites, but there are recent records of it near Tauranga on the McLaren Falls Road, near Maketu on an island in the Waihi Estuary (G. Jane pers. comm.), near Matata and in the Eastern Bay of Plenty near the Motu River estuary.

Kangaroo acacia, another spiny species present in New Zealand, was reported from Moutohora (Whale Island) but following removal efforts has not been seen for a decade so has probably been eliminated (P. Cashmore pers. comm.).

Parramatta green wattle (*A. parramattensis*) occurs in a small population in the Rotorua area, near Okere Falls, and there is an earlier record from the Opotiki district. (AK234916).

Fringed wattle (*A. fimbriata*) remains in a small population on the edge of the Whakarewarewa Forest, in the Scion Grounds, naturalised from trial plantings.

Acacia ulicifolia a small, spiny shrub, was planted in the FRI (Scion) grounds in the late 1940s, recorded as planted in the 1980s, then naturalised under forest edges by 2002, but has not been re-located in recent searches.

In addition, ***Acacia floribunda*** and ***A. stricta*** have been reported as naturalised from the Rotorua ED and ***A. floribunda*** and ***A. pravissima*** from Te Teko ED. All are occasional garden ornamentals.

Records by Ecological District

There are no wattles recorded from Waimana ED. Several EDs have only one species of wattle reported: Mayor Island ED (brush wattle); Motiti ED (brush wattle); White Island ED (Moutohora) (kangaroo acacia); Kaingaroa ED (silver wattle); Whirinaki ED (black wattle); Ikawhenua ED (Tasmanian blackwood).

Figure 3: *Acacia dealbata*. Leaf glands between opposite pinnae.

Figure 4: *Acacia mearnsii*. Leaf glands between opposite pinnae and additional glands.

Waioeka ED has two species reported (Sydney golden wattle and black wattle). Te Aroha ED has reports of three species: silver wattle, Sydney golden wattle and Tasmanian blackwood. Motu ED is reported to have four species: green wattle, black wattle, prickly Moses and brush wattle. Tauranga, Otanewainuku, Rotorua, Te Teko, Taneatua and Opotiki are the Ecological Districts with higher numbers of wattle species recorded.

Sharp-eyed observers may be able to update this information, and specimens to the National Forestry Herbarium are welcome. Note that foliage of pinnate-leaved wattles curls up quickly and pinnules drop off so they are best pressed as soon as practicable.

Species recognition

Flower head shape, 'leaf' shape, and flowering season are useful features for identification. Flower heads are spherical or cylindrical spikes. Plants have leaves with many leaflets (pinnae (pinna, *sing.*) sub-divided again into pinnules), or simple 'leaves' that are really flattened petioles or phyllodes. Some species such as Tasmanian blackwood have pinnate juvenile leaves but mature foliage consists of phyllodes. Flower colour – whether pale or bright yellow – and foliage colour can be distinctive e.g. silver wattle has bluish or glaucous pinnate leaves.

Many wattles have distinctive leaf glands. These may be on the central stalk (rachis) between pinnae (Figures 3 & 4) or on the petiole of a pinnate leaf or on the flattened petiole or phyllode, and their position and arrangement can be characteristic of a particular species.

Flowering times: Most wattles flower during winter or spring but a few e.g. Parramatta green wattle, flower in summer to autumn. There can always be out-of-season flowers but Table 1 (next page) indicates the most likely species flowering for each month.

Table 1: Flowering times of wild wattles in the Bay of Plenty

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Common & uncommon species in Bay of Plenty												
Paraserianthes lophantha				(■)	■	■	■	■	■	(■)		
dealbata							■	■	■	(■)		
decurrens							■	■	■			
longifolia							■	■	■	(■)	(■)	
sophorae							■	■	■	■		
verticillata							(■)	■	■	■	■	
melanoxylon								■	■	■	■	
mearnsii									■	■	■	(■)
paramattensis	■	■	(■)	(■)							(■)	■
Rare species in Bay of Plenty												
paradoxa							■	■	■	■		
fimbriata							■	■	■			
floribunda								■	■			
pravissima								■	■			
stricta								■				

Key features

Brush wattle: Large yellow-green bottle-brush flower heads in April–September or occasionally October, large dark blue-green leaves with many leaflets.

Silver wattle: Sprays of light yellow globular flower heads (Figure 5), blue-green to silvery bi-pinnate leaves, flowering July–September or occasionally October. Leaf glands only between pairs of pinnae (Figure 3). Hairs on young shoots silver-white. First conspicuously flowering big tree wattle in winter, apart from brush wattle and Sydney golden wattle which is mainly in coastal areas, has phyllodes, and flower heads that are cylindrical spikes. Green wattle also flowers at this time but it is not common and has vivid yellow conspicuous heads of flowers.

Black wattle: Sprays of pale creamy yellow flowers in globular heads (Figure 1), green bi-pinnate leaves, twigs densely hairy. Hairs on young shoots golden. Flowering September–November (or December); begins flowering as silver wattle finishes. Leaf glands present between opposite pinnae and also irregularly in between those (Figure 4), and on the leaf stalk.

Green wattle: Very bright yellow spherical flower heads on long sprays; pinnae more widely spaced than silver wattle, so more 'fern-like'. Flowers July–September.

Sydney golden wattle: Yellow flowers in cylindrical spikes (Figure 2); smooth green phyllodes with two (or more) conspicuous parallel prominent veins (cf. Tasmanian blackwood). Flowers July–September (–November).

Tasmanian blackwood: Sprays of pale creamy yellow flowers in spherical flower heads Figure 6); smooth green phyllodes with 3–4–5 prominent veins (cf. Sydney golden wattle). Flowers August–November.

Parramatta green wattle: Sprays of pale yellow spherical flower heads, often not heavily flowering; green bi-pinnate leaves with close-set pinnules. The twigs are sparsely hairy (cf. black wattle). Very uncommon in the Bay of Plenty. Leaf glands between opposite pinnae and also very occasionally in between those, and occasionally on the leaf stalk. Flowers (December–) January–March (–April).

Prickly Moses: Pale yellow flowers in cylindrical spikes; sharply pointed phyllodes in whorls around the stem. Flowers August–November. There are two sub-species in New Zealand:

- subspecies *cephalantha*: narrow phyllodes;
- subspecies *ruscifolia*: ovate phyllodes.

Figure 5: *Acacia dealbata*. Yellow flowers in spherical flower heads.

Figure 6: *Acacia melanoxylon*. Phyllodes, cream flowers in spherical flower heads.

Kangaroo acacia (*A. paradoxa*): This is the other sharply-pointed species in NZ (but may not be in the Bay of Plenty). It has alternately arranged, asymmetric, often undulate phyllodes, stipules that are rigid spines, and flowers in spherical heads.

All photos by Elizabeth Miller.

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