

6 AFTER CAMPHOR LAUREL

Two of the most important aspects of camphor laurel control are its replacement and control of other threatening weeds. If these points are not considered, camphor laurel control could result in the rapid colonisation of other weeds, some of which are harder to control and more vigorous, and the loss of important habitat for native plants and animals, some of which are already threatened with extinction.

The first part of this chapter highlights some of the other threatening weeds that must be controlled at the same time or before camphor laurel is controlled. Replacement with pasture grasses is discussed in 6.2.1. Replacement of shade trees is discussed in 6.2.3 and replacement and encouragement of native vegetation is discussed in 6.2.4.

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6.1 **Other threatening weeds**

A range of other weeds often grow in association with camphor laurel. If these are not controlled they may take its place and, in fact, be more detrimental and harder to control.

Weeds are opportunistic and often colonise quickly. They can restrict or prevent the natural processes of recruitment and succession from occurring, leading to degradation of natural ecosystems. **Many weeds are garden escapees.**

Detailed descriptions of problem weeds and their control methods can be found in publications such as “Common weeds of Northern NSW rainforest” produced by the Big Scrub Landcare Group. Several weeds often found growing with camphor are listed below. Some of these can be very hard to control. Vines are particularly threatening as they can take over entire forests and spread to new areas by birds or flood waters.

Careful identification of weeds is required before they are controlled to ensure they are not mistaken for native species. Native plants can help form a long-term weed control.

Control techniques listed below are described in more detail in Chapter 5.

Small and Large-leaved Privet

Ligustrum spp.

Plate 26: Small-leaved Privet. Source: Coastcare Coastal Weeds



Small (S) (pictured) and Large-leaved Privet (L) are a major problem in moist gullies and rainforest, especially where there is nutrient enrichment or disturbance. They can grow in low-light conditions.

Form: S: Large shrub up to 4m high. L: Shrub or tree to 10m.

Leaves: Opposite. S: 2-5cm long, 1.5-2.5cm wide. L: 4-13cm long, 3-5cm wide.

Flower: Small, white & fragrant. Can cause allergic reactions. S: Winter-Spring. L: Spring-Summer.

Fruit/Seed: Berry, purple to black in large bunches. S: Winter-Spring. L: Autumn-Winter, fruit may be poisonous to horses and children.

Similar native species: *Canthium sp.*, Lilly Pillies (*Acmena* and *Syzigium spp*), Cheese Tree (*Glochidion ferdinandi*), Shatterwood (*Backhousia sciadophora*), Mock Olives (*Notolaea spp.*), Native Olive (*Olea paniculata*), Plum Myrtle (*Pilidiostigma glabrum*).

Non-chemical control. Seedlings: Hand pulling is effective. **Shrubs/trees:** Ringbark using a hammer or chisel as for camphor laurel (see chapter 5.2). Return to remove suckers.

Chemical control. Seedlings: Spray all foliage with Metsulfuron methyl 1gm/10 L water or 1 measured pack of Cut out[®] to 100L water. Big Scrub Rainforest Landcare / NPWS have a permit to spray glyphosate 1:50 water with Li700. **Saplings:** Scrape and paint with glyphosate 1:1.5 water. **Shrubs/trees:** Cut and paint or inject (1-2ml depending on size) with glyphosate 1:1 water. Best time: Summer-autumn. For agricultural land (non-crop) also Access 1:30 diesel (LLPrivet only) & Garlon 600[®] 1:12 diesel basal bark & cut stump. **Do not spray when bushes are stressed. Return to the site to control new seedlings.**

Madeira Vine or Lamb's Tail

Plate 27: Madeira Vine. Source: Coastcare Coastal Weeds



Madeira Vine is recognised as the worst environmental weed in the region. It can very quickly smother groundcovers, shrubs and trees. It spreads from ground and aerial tubers and seed and will re-grow from axillary buds still attached.

Form: Climber, stems up to 20m long.

Leaves: Heart shape, fleshy, 3-15cm long

Flower: Small greenish white, fragrant. Spring to summer.

Fruit/Seed: Rare in Aust. Dry, hard, 1mm

Similar native species: Arrow-head vine (*Tinospora tinoporoides*)

Non-chemical Control: Remove as much of the plant as possible, especially tubers (underground & aerial) & compost under black plastic. **Chemical Control:** NPWS/Big Scrub Landcare have permit for: Scrape as much stem as possible & paint with 100% glyphosate, gouge tubers & paint (100%), spray ground infestations (1:50 water with

Li700). Compost tubers/ vines under black plastic. Also: foliar spray Starane 200[®] 5mL/1L water. Spraying herbicide is best in early autumn. **Requires continued follow-up.**

Cat's Claw Creeper

Plate 28: Cat's Claw. Source: Steenbeeke (1999)



Macfadyena unguis-cati

Very aggressive vine that can smother trees & other plants. Tolerates a variety of habitats including deep shade.

Form: Woody climber, tendrils end in 3 sharp claws. Vigorous "tuber" roots.

Leaves: Usually 2 opposite leaflets 2-7cm long & 3-clawed tendril at end.

Flower: Bell-shaped, bright yellow, spring-summer. **Fruit/seed:** Capsule, similar to a long bean pod - brown when ripe, seed winged. Summer-Autumn.

Similar native species: Pastel flower (*Psuederanthemum variabile*), Native Silkpods (*Parsonsia* spp.), Young Native Tamarind (*Diploglottis australis*).

Non-chemical Control: Remove as much of the plant as possible. Extremely hard to remove underground tuber. Follow up regularly. **Chemical Control:** NPWS/Big Scrub Landcare

have permit for: Cut & paint all stems (paint upward & downward growing stems) with glyphosate (1:1.5 water). Pull down any regrowth and spray (1:100 water with Li700). Best time: Summer-autumn when actively growing. **Requires continued follow-up control of new seedlings.**

Balloon Vine***Cardiospermum grandiflorum***

Plate 29: Balloon Vine. Source: Coastcare Coastal Weeds



Invades moist areas, especially gullies, creeklines and rainforest areas.

Form: Climber with stems up to 10m long.

Leaves: Leaflets 2.5-6cm long

Flower: Small and white. Summer to autumn.

Fruit/Seed: Inflated capsule with papery membrane, 3 black seeds inside capsule, produced throughout year.

Similar native species: Juveniles of White Cedar (*Melia azedarach*) and Native Grape (*Cayratia clematidea*).

Non-chemical Control: Hand -pull young and mature plants. Pull down vine, ensuring that all seed capsules are bagged. **Chemical Control:** NPWS/Big Scrub Landcare have permit for: Spray seedlings with glyphosate (1:50 and surfactant). Cut, scrape & paint thick stems with glyphosate (100%). **Follow up control of seedlings regularly.**

Groundsel Bush***Baccharis halimifolia***

Plate 30: Groundsel Bush. Source: Greater Taree City Council



Grows in a variety of habitats although it prefers poorly drained sites around coastal wetlands. It is a major problem on the north coast of NSW and is spreading southward. Each plant can produce up to 1.5 million seeds per year.

Form: Bushy shrub, 1 - 7m high.

Leaves: toothed, 3-7cm long.

Flower: Male and female flowers are on separate plants. Male flowers cream and female flowers white. Summer to autumn.

Fruit/Seed: Produces many seeds giving the plant a fluffy white appearance. Autumn.

Similar native species: None.

Non-chemical control: Young plants are easily removed by hand-pulling. Care should be taken to remove all roots as they are capable of re-growth. For large infestations, regular slashing before flowering over the long term has proven effective.

Chemical control: NPWS/Big Scrub Landcare have permit for: Cut and paint with glyphosate (1:1.5). stem-injection of large plants with 1:1.5 water. Foliar spray with glyphosate (1:50) before flowering. Others: Basal bark & cut stump with Access[®] (1:60 diesel), agricultural non-crop: basal bark & cut stump Garlon 600[®] (1:120 diesel) (treat from early summer rains to end of April when regrowth is apparent) or Grazon DS[®] 25mL:10L water (for 1-1.5m tall plants), 35mL:10L water (over 1.5m tall or in autumn).

NB: Flowers and seeds can continue to mature after they are cut from the plant.

Lantana***Lantana camara***

Plate 31: Lantana. Source: Coastcare Coastal Weeds



Lantana is one of the most common weeds on the North Coast and it invades a wide variety of habitats. Several of the red and orange-flowered forms are poisonous to stock.

Form: Large spreading shrub forming dense thickets, usually up to 3m high although it can climb trees.

Leaves: Opposite, hairy (rough to touch), serrated, 2.5-8cm long

Flower: Clustered tube-shaped flowers either pink, yellow or red. Flowers most of the year.

Fruit/Seed: Small black fruits throughout the year. **Non-chemical control:** Dig up the root system, particularly the lateral roots. Slash with a tractor. Graze with goats. Follow up hand pulling of seedlings. **Chemical control:** NPWS/Big Scrub Landcare have permit for: cut, scrape and paint with glyphosate (1:1.5 water). Cut manually and spray regrowth with glyphosate (1:100 water). Others: foliar spray Grazon DS[®] 50mL/10L water or 35mL/10L water + adjuvant. **Branches in contact with the ground may re-establish into new plants.**

Trad (Wandering Jew)***Tradescantia fluminensis (albiflora)***

Plate 32: Trad. Source: Coastcare Coastal Weeds (left), Steenbeeke (1999) (right).



Trad (formerly Wandering Jew) is found throughout the North Coast and especially favours moist fertile and protected sites such as the understorey of rainforest or in gullies. It can be confused with the native *Commelina cyanea*, which has blue flowers and smaller leaves which are less crowded on the stem. **Form:** Creeping herb. **Leaves:** Alternate, dark green, shiny, 2.5-5.5cm long. **Flower:** White with three petals. Spring to summer. **Fruit/Seed:** Produces no fruit – spreads vegetatively. **Similar native species:** Native wandering Jew (*Commelina cyanea*), Aneilema (*Aneilema biflorum*), Basket grasses (*Aplismensus spp.*), Terrestrial orchids (*Cheirostylis ovata*, *Zeuxine oblonga*). **Non-chemical control:** The smallest fragments of this plant are capable of re-establishing into new plants so all parts must be removed. Rake and compost under black plastic and follow up often. Ducks. **Chemical control:** NPWS permit for: foliar spray with glyphosate (1:50 with Li700). Others: foliar spray Starane 200[®] 15mL/1L. Spray is most effective in Autumn to Winter. **Follow-up control is necessary.**

Chinese Celtis / Hackberry***Celtis sinensis***

Plate 33: Chinese Celtis. Source: T.Scanlon



Ornamental tree that can tolerate a wide variety of soils. They are common along riparian zones and are mainly spread by birds.

Form: Semi-deciduous tree, 15-20m.

Leaves: Serrated, 3-5-veined from near the base.

Flower: Small, green, in clusters. Summer.

Fruit: Green to brown, purple or black fleshy drupes. Summer-Autumn.

Similar native species: Native

Peach (*Trema aspera*), Native Celtis (*Celtis paniculata*) and, when young, Native mints (*Plectranthus spp.*) **Non-chemical control:** Hand-pull seedlings. **Chemical control:** NPWS/Big Scrub Landcare have permit for: cut, scrape and paint saplings and stem-inject or spear trees with glyphosate (1:1.5), spray re-growth with glyphosate (1:100 with surfactant). Others: Basal bark Starane 200[®] (3.5L/100L diesel). Best season: summer.

Mickey Mouse Plant***Ochna serrulata***

Plate 34: Mickey Mouse Plant. Source: Coastcare Coastal Weeds



Common ornamental plant.. It prefers moist areas such as rainforests but can grow in a range of environments.

Form: Shrub, 2 - 3m high.

Leaves: Stiff, toothed, 2-6cm long

Flower: Bright yellow with 5 large petals. Spring to autumn.

Fruit/Seed: Sepals turn bright red holding up to five glossy green fruit which ripen to black. Late spring-early summer.

Similar native species: Whalebone tree (*Streblus brunonianus*).

Non-chemical control: Hand removal, particularly small seedlings. This can be difficult due to the long taproot which breaks readily and must be completely removed.

Chemical control: NPWS/Big Scrub Landcare have a permit for: stem inject or cut, scrape and paint with glyphosate (1:1.5) and foliar spray a mix of glyphosate (1:50) with metsulfuron methyl 1.5g/10L and 20mL Agral. National Trust (1992) found best results with scrape & paint of glyphosate 1:3 water. Chemical treatment is best in late Spring.