



Commonwealth of Australia

**Amendment to the list of threatened ecological communities under section 181 of the
Environment Protection and Biodiversity Conservation Act 1999 (EC148 and EC61)**

I, SUSSAN LEY, Minister for the Environment, pursuant to paragraph 184(a) of the *Environment Protection and Biodiversity Conservation Act 1999*, hereby amend the list referred to in section 181 of that Act by:

including in the list of threatened ecological communities in the **critically endangered** category:

Illawarra–Shoalhaven Subtropical Rainforest of the Sydney Basin Bioregion

Robertson Rainforest in the Sydney Basin Bioregion

as described in the Schedule to this instrument.

Dated this..... 30thday of..... August2019

SUSSAN LEY
Minister for the Environment

SCHEDULE

Illawarra–Shoalhaven Subtropical Rainforest of the Sydney Basin Bioregion

The Illawarra-Shoalhaven Subtropical Rainforest occurs south of Sydney in NSW, in the Sydney Basin Bioregion. Its northern boundary of occurrence is the Port Hacking estuary, and the southern boundary is the boundary between the Sydney Basin and the South East Corner bioregions. It typically occurs on relatively high-nutrient soils on the coastal plain, low-lying foothills and slopes, benches and drainage lines of the eastern coastal escarpment (and of some coastal mountains), between the Hacking and Clyde rivers, rarely extending onto the upper escarpment slopes. It is usually found below 350 m above sea level (ASL), but there are occurrences up to around 550 – 600 m ASL, for example around Cambewarra Mountain.

The ecological community when relatively undisturbed typically has high structural complexity with a canopy and emergent trees, epiphytes, mid-stratum trees and shrubs, vines; and a variable ground layer.

Emergent trees from the canopy include: *Alphitonia excelsa* (Red Ash), *Ficus* spp. (figs), *Dendrocnide excelsa* (Giant Stinging Tree) and *Toona ciliata* (Red Cedar); and eucalypts in some areas, typically *Eucalyptus tereticornis* (Forest Red Gum) and *Eucalyptus quadrangulata* (White-topped Box, Coast White Box).

The canopy and subcanopy layers contain a diverse range of species. The most characteristic species are: *Dendrocnide excelsa* (Giant Stinging Tree), *Streblus brunonianus* (Whalebone Tree) and *Toona ciliata* (Red Cedar). Other characteristic species include: *Alectryon subcinereus* (Native Quince), *Alphitonia excelsa* (Red Ash), *Baloghia inophylla* (Brush Bloodwood), *Brachychiton acerifolius* (Flame Tree), *Citronella moorei* (Churnwood), *Claoxylon australe* (Brittlewood), *Cryptocarya glaucescens* (Jackwood), *Cryptocarya microneura* (Murrogun), *Diospyros australis* (Black Plum), *Diospyros pentamera* (Myrtle Ebony), *Diploglottis australis* (Native Tamarind), *Ehretia acuminata* var. *acuminata* (Koda), *Elaeodendron australe* (Red-fruited Olive Plum), *Ficus* spp. (figs), *Guioa semiglauca* (Guioa), *Myrsine howittiana* (Brush Muttonwood), *Myrsine variabilis* (Muttonwood), *Pennantia cunninghamii* (Brown Beech) and *Planchonella australis* (Black Apple).

Vines and lianas include: *Celastrus australis* (Staff Climber), *Cissus antarctica* (Kangaroo Vine), *Cissus hypoglauca* (Water Vine), *Eustrephus latifolius* (Wombat Berry), *Geitonoplesium cymosum* (Scrambling Lily), *Legnephora moorei* (Round Leaf Vine), *Pandorea pandorana* (Wonga Vine), *Parsonsia straminea* (Common Silkpod), *Piper hederaceum* (Giant Pepper Vine), *Marsdenia rostrata* (Milk Vine), *Gynochthodes jasminoides* (Sweet/Jasmine Morinda), *Smilax australis* (Sarsaparilla) and *Trophis scandens* (Burny Vine). Epiphytes include: *Asplenium australasicum* (Bird's Nest Fern) and *Platyserium bifurcatum* (Elkhorn).

Shrubs and small trees include: *Notelaea venosa* (Veined Mock Olive), *Elaeodendron australe* (Red-fruited Olive Plum), *Clerodendrum tomentosum* (Hairy Clerodendrum), *Pittosporum multiflorum* (Orange Thorn), *Breynia oblongifolia* (Coffee Bush), *Croton verreauxii* (Green Native Cascarilla), *Gymnostachys anceps* (Settlers Twine), *Myrsine variabilis* (Muttonwood), *Maclura cochinchinensis* (Cockspur Thorn), *Pittosporum revolutum* (Rough Fruit Pittosporum), *Streblus brunonianus* (Whalebone Tree) and *Wilkiea hugeliana* (Veiny Wilkiea).

Ground layer species include: *Gymnostachys anceps* (Settlers Twine), *Oplismenus hirtellus* (Australian Basket Grass) and *Pseuderanthemum variabile* (Pastel Flower); and ferns such as *Pellaea falcata* (Sickle Fern), *Asplenium flabellifolium* (Necklace Fern), *Adiantum formosum* (Giant Maidenhair), *Pteris umbrosa* (Jungle Brake) and *Doodia aspera* (Prickly Rasp Fern).

The ecological community includes a variety of fauna species, including nationally threatened species such as: *Chalinolobus dwyeri* (Large-eared Pied Bat), *Dasyurus maculatus* (Spot-tailed Quoll), *Litoria aurea* (Green and Golden Bell Frog) and *Pteropus poliocephalus* (Grey-headed Flying-fox).

Disturbance may alter the structure and composition of some areas of the ecological community such that they do not contain all the characteristic features described above.

Robertson Rainforest in the Sydney Basin Bioregion

The Robertson Rainforest is mostly limited to the Southern Highlands of New South Wales in the southern portion of the Sydney Basin Bioregion. Known occurrences are mostly on the Robertson Plateau, with some small occurrences further south, on the higher parts of the Cambewarra Range and the Sassafras Plateau, southwest of Nowra. It typically occurs on relatively high nutrient soils derived from basalt and basanite – though it may also occur in transition zones between shale and basalt soils – at altitudes between 500 and 800 metres above sea level, on sites typically receiving high rainfall (greater than 1000 mm per annum).

The ecological community is a type of warm to cool temperate rainforest characterised by a low, dense tree canopy, a mesic shrub stratum, lianas and groundcover generally dominated by ferns. The characteristic or common trees present include: *Quintinia sieberi* (Possumwood), *Polyosma cunninghamii* (Featherwood), *Doryphora sassafras* (Sassafras), *Acacia melanoxylon* (Blackwood), *Syzygium smithii* (syn. *Acmena smithii*) (Lilly Pilly) and occasionally *Ceratopetalum apetalum* (Coachwood). *Pennantia cunninghamii* (Brown Beech), *Dendrocnide excelsa* (Giant Stinging Tree) and *Citronella moorei* (Silky Beech) may also be prominent in some patches, such as on the Cambewarra Range. Common species in the mid stratum include: *Melicytus dentatus* (Tree Violet), *Coprosma quadrifida* (Prickly Coprosma), *Tasmannia insipida* (Brush Pepperbush), *Myrsine howittiana* (Brush Muttonwood) and *Notelaea venosa* (Veined Mock-olive). Epiphytic species include the ferns *Microsorium scandens* (Fragrant Fern) and *Pyrrosia rupestris* (Rock Felt Fern). Ferns and other herbs in the ground layer include *Lastreopsis acuminata* (syn. *Parapolystichum acuminatum*) (Shiny Shield Fern), *Lastreopsis microsora* (Creeping Shield Fern), *Microsorium pustulatum* subsp. *pustulatum* (Kangaroo Fern), *Asplenium flabellifolium* (Necklace Fern), *Pellaea falcata* (Sickle Fern) and *Urtica incisa* (Stinging Nettle).

The ecological community includes a variety of fauna species, including nationally threatened species such as *Chalinolobus dwyeri* (Large-eared Pied Bat), *Dasyurus maculatus* (Spot-tailed Quoll), *Isoodon obesulus* (Southern Brown Bandicoot), *Litoria littlejohni* (Littlejohn's Tree Frog) and *Mixophyes balbus* (Stuttering Frog).

Disturbance may alter the structure and composition of some areas of the ecological community such that they do not contain all the characteristic features described above.