

Ecosystems of Magnetic Island

Lowland/ Highland	Regional Ecosystem (REDD V12)	Sandercoe (1990) Vegetation Type	Short Description	Comments
L1	11.1.1	Not mapped	Saltcouch (<i>Sporobolus virginicus</i>) grassland on marine clay plains.	Mostly upper margins of tidal areas subject to periodic inundation during highest tides. May receive freshwater seepage from adjacent terrestrial areas for most of the year in which case paperbarks (<i>Melaleuca spp.</i>) and blue gum (<i>Eucalyptus tereticornis</i>) may be present. The mangrove fern (<i>Acrostichum speciosum</i>) is sometimes present.
L2	11.1.2	4	Samphire forbland on marine clay plains.	Fringing salt pans and subject to periodic tidal inundation. Significant fisheries habitat.
L3	11.1.3	6a	Bulkuru sedgelands (<i>Eleocharis spp.</i>) on marine clay plains.	Upper margins of tidal areas receiving seasonal freshwater. Subject to periodic tidal inundation, and water-logging from freshwater discharge. Significant fisheries habitat.
L4	11.1.4, 11.1.4b	1,2,3	Mangrove (<i>Avicennia marina</i>) low open forest and/or woodland on marine clay plains.	Includes narrow strip on seaward margins of mangrove areas, and landward tidal margins where there is a high seasonal freshwater input. Significant fisheries habitat.
L5	11.1.4a	1	Mangrove (<i>Rhizophora spp.</i>) low open forest and/or woodland on marine clay plains.	Dominant mangrove community on western side of island. Submerged most tides. Significant fisheries habitat.
L6	11.1.4c	3	Mangrove (<i>Ceriops spp.</i>) low open forest and/or woodland on marine clay plains.	Mainly landward margins of mangrove communities and salt pans where there is little freshwater input. Significant fisheries habitat.
L7	11.1.4d	Not mapped	Mangrove low open forest and/or woodland on marine clay plains (landward margins, high freshwater).	Mainly landward margins of mangrove communities where there is significant freshwater input. Mixed species including orange mangrove (<i>Bruguiera spp.</i>), black mangrove (<i>Lumnitzera racemosa</i>) and blind-your-eye mangrove (<i>Excoaeria agallocha</i>).
L8	11.2.1	7	Bloodwood (<i>Corymbia spp</i>) woodland on coastal dunes.	Generally older hind dunes. Usually diverse lower tree story including paperbarks (<i>Melaleuca spp.</i>) and <i>Pandanus spp.</i> Groundwater recharge.
L9	11.2.2	5	Complex of goatsfoot (<i>Ipomoea pes-caprae subsp. brasiliensis</i>), coastal spinifex (<i>Spinifex sericeus</i>) and beach oak (<i>Casuarina equisetifolia</i>) low woodland and herbland on foredunes.	Foredunes and upper margins of beaches. Subject to seasonal erosion and replenishment. Turtle nesting.
L10	11.2.3	10	Microphyll vine forest ("beach scrub") on sandy beach ridges.	Mostly hind dunes. Variety of communities ranging from open evergreen scrubs to semi deciduous scrubs, on high dunes and some other secondary dunes. Groundwater recharge.
L11	11.2.4	6	Paperbark woodland (<i>Melaleuca spp</i>) in lagoons in coastal dune swales.	Seasonal wetlands within dunes.
L12	11.3.4	8	Blue gum (<i>Eucalyptus tereticornis</i>) and paperbark (<i>Melaleuca leucodendra</i>) open forest on dark loamy soils on alluvial plains.	Deltas of largest creek systems including Duck Creek and Endeavour Creek. Most fertile habitat and tallest forest on the island. Periodically flooded. Groundwater recharge. Refuge for koalas in dry times.

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L13	11.3.9	7	Poplar gum (<i>Eucalyptus platyphylla</i>), bloodwood (<i>Corymbia spp.</i>) and paperbark (<i>Melaleuca leucodendra</i>) woodland on sandy alluvial plains.	Recent and current alluvial plains with predominantly deep sandy soils. . Includes both recharge and discharge areas. Numerous habitat hollows in older trees.
L14	11.3.9 (11.5.8x1)	7	Bloodwood (<i>Corymbia spp.</i>) and poplar gum (<i>Eucalyptus platyphylla</i>) woodland on old red soil pediments.	Gently sloping footslopes of granite hills, with deep red earths, often with laterised subsoil. Major area of groundwater recharge on the lowlands. Diverse lower tree story and dense tall grasses. Numerous habitat hollows in older trees.
L15	11.3.11x1	10	Semi-evergreen vine thicket on alluvial plains.	Areas of deeper soil usually adjacent to base of scree slopes due to a better water balance and fire protection. Largest area is in upper Gustav Creek.
L16	11.3.12, 11.3.12a, 11.3.12x2	Not mapped	Paperbark (<i>Melaleuca viridiflora</i> , <i>M. nervosa</i> , <i>M. dealbata</i>) low woodland on alluvial plains.	Low lying areas on alluvial plains with impeded drainage and fine hard setting loam soils. Unusual occurrence in Horseshoe Bay with shallow duplex soils and Dallachy's gum (<i>Corymbia dallachiana</i>) emergents.
L17	11.3.25b	8	Blue gum (<i>Eucalyptus tereticornis</i>) and paperbark (<i>Melaleuca leucodendra</i>) forest fringing drainage lines.	Water course fringing forest with diverse lower tree story. Controls erosion and helps maintain water quality. Significant refugial habitat and major seasonal food source for many species. Important habitat corridor.
L18	11.3.27a, 11.3.27b	6	Freshwater wetlands: Open water with fringing or emergent paperbark (<i>Melaleuca leucadendra</i>).	Seasonal wetland significant for freshwater aquatic species. Major seasonal food source. May be connected to tidal areas during flooding or highest tides. Groundwater recharge.
L19	11.3.27x1a, 11.3.27x1b	6a	Freshwater wetlands: paperbark (<i>Melaleuca spp.</i>) woodland.	Seasonal wetland significant for freshwater aquatic species. Two forms: wetlands behind sand dunes on alluvial plains that are recharge areas, and discharge wetlands along seaward margins of sandy alluvial plains subject to occasional inundation by highest tides.
L20	11.3.35	7	Poplar gum (<i>Eucalyptus platyphylla</i>) woodland on alluvial plains with hard setting soils.	Fine textured, hard setting soils in drainage depressions on alluvial plains. Seasonal wetland. Numerous habitat hollows in older trees.
L21	11.3.35x1	Not mapped	Paperbarks (<i>Melaleuca spp.</i>), poplar gum (<i>Eucalyptus platyphylla</i>) and cabbage palm (<i>Livistona decipiens</i>), woodland on alluvial plains on soils derived from Julago Volcanics.	Very fine textured, hard setting soils in drainage depressions on alluvial plains. West Point only. Seasonal wetland, numerous habitat hollows in older trees.
H1	11.12.4, 11.12.4a	13, 14	Semi-evergreen vine thicket and microphyll vine forest on granite.	Fire sensitive. Mainly sheltered gullies and scree slopes. Refuge for specialized flora. Essential habitat for rock wallaby.
H2	11.12.4x1	13	Semi-evergreen vine thicket and microphyll vine forest on Julago Volcanics.	Fire sensitive. Very steep slopes, scree slopes, and rubble terraces on Julago volcanics. Infested with rubber vine (<i>Cryptostegia grandiflora</i>). Refuge for specialized and restricted flora.
H3	11.12.9	9	Poplar gum (<i>Eucalyptus platyphylla</i>) and bloodwood (<i>Corymbia clarksoniana</i>) woodland on lower slope of granite hills.	Recharge area, numerous habitat hollows in older trees.

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H4	11.12.12	11	Hoop pine (<i>Araucaria cunninghamii</i>) woodland on granite hills.	Fire sensitive. Two main types of occurrence: sheltered gullies with vine thicket understory and exposed rocky headlands with spinifex understory.
H5	11.12.13a	17, 19	Mixed eucalypt woodland (<i>Eucalyptus drepanophylla</i> , <i>Corymbia</i> spp., <i>E. portuensis</i>) woodland on granite hills.	Variable and widespread community with grassy understory. Major mid-altitude community of deeper soils on granites.
H6	11.12.13 x1	17, 20	Ironbark (<i>Eucalyptus dreoanophylla</i>) and kapok (<i>Cochlospermum gillivraei</i>) woodland on hills on Julago Volcanics.	Includes small areas of brush box (<i>Lophostemon confertus</i>) on steepest slopes. Restricted to low hills in NW of island on Julago Volcanics. Largely deciduous community on shallow hard setting soils. High runoff.
H7	11.12.14	20	Mallee brush box (<i>Lophostemon confertus</i>) low closed forest on granite hills.	Rocky rises and hill slopes with much broken outcrop.
H8	11.12.15	21, 22	Bloodwood (<i>Corymbia intermedia</i>) and white mahogany (<i>Eucalyptus portuensis</i>) woodland with lower tree layer of hill oak (<i>Allocasuarina torulosa</i>) and occasional cabbage palms (<i>Livistona decipiens</i>) on higher areas of granite hills.	Highlands only, above about 340m altitude. Includes large dolerite dyke with cabbage palms and hill oak. High dissected plateau with cooler temperatures and cloud moisture, and well developed organic soil surface. Restricted habitat for specialized flora.
H9	11.12.16, 11.12.16a, 11.12.16d	12, 15, 16, 18	Mixed low woodland to shrubland on granite hills.	Diverse and variable community usually with northern swamp mahogany (<i>Lophostemon grandiflorous</i>), kapok (<i>Cochlospermum gillivraei</i>), mango bark (<i>Canarium australianum</i>), Burdekin plum (<i>Pleiogynium timorense</i>) and red ash (<i>Alphitonia excelsa</i>). Can include areas of Townsville wattle (<i>Acacia leptostachya</i>) and spinifex grassland. Semi-deciduous and deciduous communities of shallow soils and rock pavements.
H10	11.12.16x2	15, 23	Mixed low woodland to shrubland on hills on Julago Volcanics.	Diverse and variable community usually with a dominant lower tree canopy that includes scrub wilga (<i>Geijera salicifolia</i>) and python tree (<i>Gossia bidwillii</i>), and a diversity of shrubs including wallaby apple (<i>Pittosporum spinescens</i>), <i>Antidesma parvifolium</i> and current bush (<i>Carissa ovata</i>). Occasional emergents including northern swamp mahogany (<i>Lophostemon grandiflorous</i>) and mango bark (<i>Canarium australianum</i>).
	16a,b,c etc are different vegetation communities within a regional ecosystem. x1, x2 etc are new regional ecosystems with similarities with the "root" regional ecosystem.	Sandercoe vegetation types do not recognise the ecosystem differences between granites and the Julago Volcanics, so types 13,15,17 and 20, which are mapped on the Julago Volcanics, overlap with different regional ecosystems.		