

Tall open forests on steep hills and mountains



Landform	Steep mountains and hills.
Woody vegetation	Grassy open forest of wide range of species including grey gum, stringybark, blackbutt, tallowwood, spotted gum, narrow-leaved ironbark and scattered rainforest.
Expected pasture composition	<i>* Denotes non-native "Expected Pasture Composition" species.</i>
Preferred	Black speargrass, barbwire grass, kangaroo grass, tambookie grass, Rhodes grass*, creeping bluegrass*.
Intermediate	Pitted bluegrass, bottlewasher grasses, lovegrasses.
Non-preferred	Wiregrasses, reedgrass, blady grass, slender chloris.
Legumes	Emu-foot, woolly glycine, rhynchosia, creeping tick trefoil.
Annual grasses	Small burr grass.
Suitable sown pastures	Rhodes grass, creeping bluegrass, Shrubby stylo, fine stem stylo, Caatinga stylo, siratro.
Introduced Weeds	Lantana.
Soil	Texture contrast soils of brown loamy sands overlaying red or yellow well structured clays; or very shallow soil overlying weathering rock.
Description	Surface: Loose to hard-setting, sometimes gravelly or very shallow; Surface texture: sandy loam, occasionally sandy clay loam to clay loam; Subsoil texture: medium to heavy clay; weathered rock.
Features	Sub-surface may be paler but generally not bleached. Well structured and friable clays. Sometimes mottled. Very shallow soils (<0.3 m) have variable amounts of stone and gravel.
Water availability	Very low to low, PAWC <50–100 mm in root zone.

Rooting depth

Effective rooting depth <0.3 m (lithosols) to <1.5 m (podzolics).

Fertility

Low nitrogen; very low phosphorus; variable (very low to very high) potassium; low to medium zinc; low to high copper.

Salinity

Very low to low.

Sodicity

Non-sodic

pH

Soil surface strongly acid (5.2) to slightly acid (6.5) (podzolics) to medium acid (6.0) to neutral (lithosols 6.6); podzolic subsoils very strongly acid (5.0) to slightly acid (6.5), occasionally neutral to mildly alkaline (up to 7.8).

Long-term carrying capacity information (A condition)

Based on fully watered area for 1AE = 450 kg animal consuming 8kg DM/day				
Median annual rainfall 744 – 1372 mm				
Pasture type	Median tree cover (TBA m ² /ha) (FPC %)	Median annual pasture growth (DM kg/ha)	Safe annual utilisation pasture growth (%)	LTCC (ha/AE)
Native species	0 TBA/FPC	2860 - 3430	25%	3.4 – 4.1
	28 TBA 63 FPC	< 810 - 1470	25%	> 8 – 14

Enterprise

Breeding and growing.

Land use and management recommendations

- Suitable for grazing of native and improved pastures.
- Do not clear steep slopes or areas with very shallow soils.
- Maintain maximum surface cover at all times.
- Spell pastures when flowering and seeding.
- Burn every 4–6 years to help control weeds and regrowth (lantana, wattles).

Land use limitations

- Highly erodible, with high risk of landslips on over-cleared steeper slopes.
- Prone to sheet erosion and wind erosion on bare, exposed slopes.
- Generally very low nutrient status, particularly nitrogen and phosphorus.
- Root development and nutrient uptake may be impeded in very shallow soils or more acid subsoils.
- Surface stone can be a problem.
- Red clays generally well drained, yellow clay subsoils poorly drained that can result in water logging after heavy rain.

Conservation features and related management

- Habitat for rare and threatened flora including *Persoonia* spp. and cycads.
- Relatively uncleared, these land types provide valuable resources for forest dependent fauna such as possums, gliders, forest owls, microbats, insectivorous birds and arboreal and ground dwelling reptiles.
- Retaining adequate numbers of habitat trees is important in providing food and shelter resources for these species.
- Frequent fire regimes can reduce the shrubby understorey that contributes to the structural complexity of the habitat so important for a number of fauna.

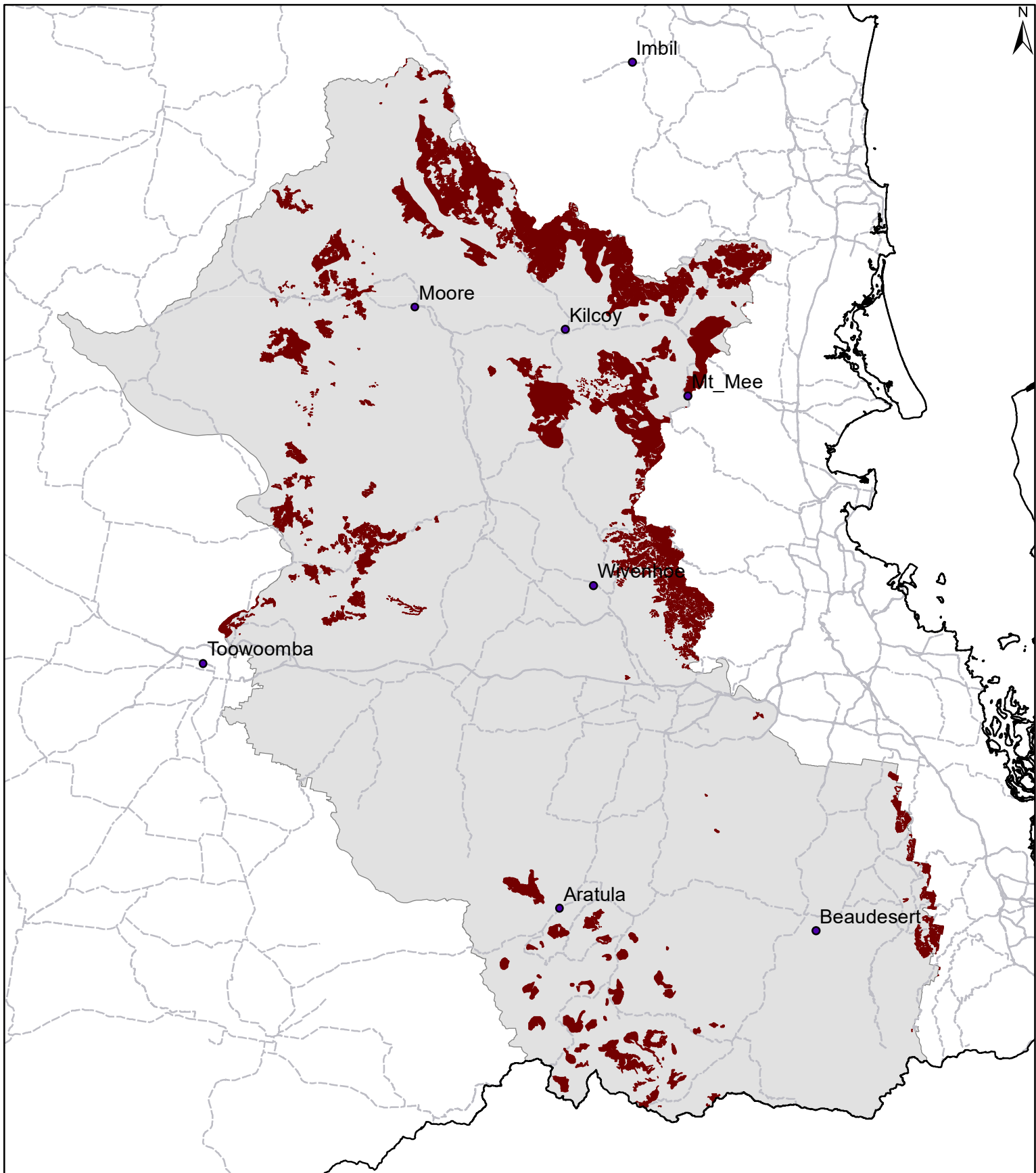
Regional Ecosystems

12.11.16, 12.11.2, 12.11.20, 12.11.23, 12.11.24, 12.11.25, 12.11.26, 12.11.28, 12.11.3, 12.11.3a-b, 12.12.15, 12.12.2, 12.12.20, 12.12.23, 12.12.2a-b, 12.12.6, 12.5.6, 12.8.20, 12.8.25, 12.9-10.1, 12.9-10.13, 12.9-14, 12.9-14a-b, 12.9-10.17d, 12.9-10.20, 12.9-10.20, 12.9-10.23, 12.9-10.24.

Land resource area

Metamorphic Hills, 4 (Noble, 1996).

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Area of land type in region: 9%
Median rainfall (region): 632 – 1372 mm
Average rainfall (region): 637 – 1536 mm
Area of land type with FPC: 7%
Median FPC: 63%
Median TBA: 28 m²/ha



Queensland
Government