

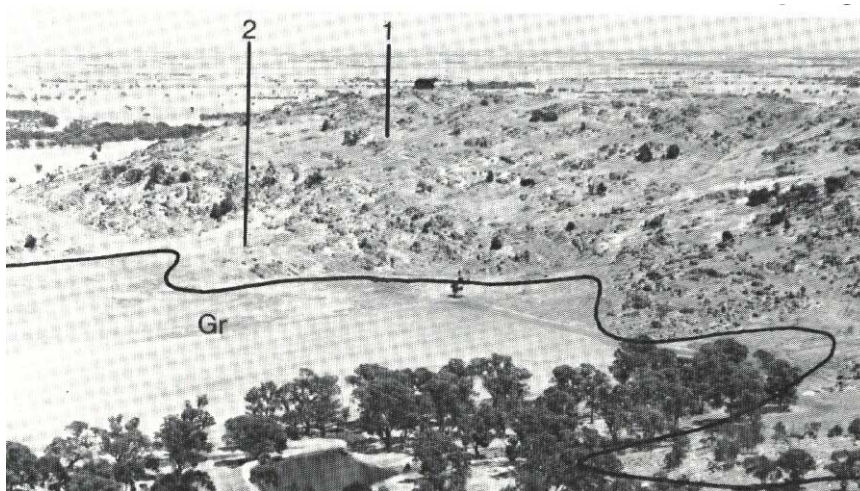
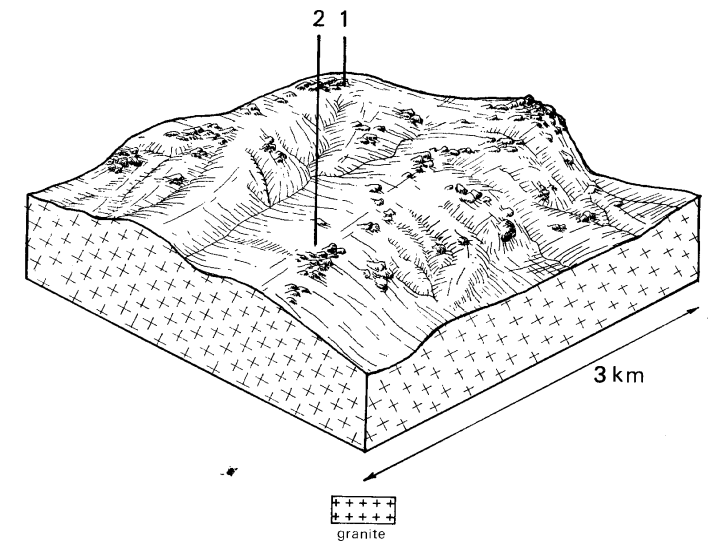
7.28 Yowang Hill land system

Steep hills on Ordovician granite and granodiorite in the north form rugged landmarks in an otherwise gently undulating landscape.

Uniform-textured coarse sandy loam soils of variable depth occur between outcropping tors. These excessively well-drained soils once supported woodlands of *Eucalyptus microcarpa* and *E. leucoxyton*; however, Mount Kooyoora is the only area to retain its native vegetation.

Clearing and grazing has increased run-off and instability, the more obvious forms of deterioration being gully erosion in the drainage lines and landslips on the steep slopes. The increased run-off water results in a severe gully erosion hazard on low-lying adjacent land.

The value of these granitic hills for grazing is limited because of the rugged, poorly accessible terrain, the very low water-holding capacity of the soils and the resultant low pasture production from native pastures. In addition, the disturbance to vegetation causes considerable erosion on better-quality lower lands. Thus management should aim at limitation of grazing and re-establishment of trees.



The steep hills of outcropping granite have been completely cleared for grazing.



A dense ground cover of vegetation minimises the erosion hazard

YOWANG HILL LAND SYSTEM Area37sq.km

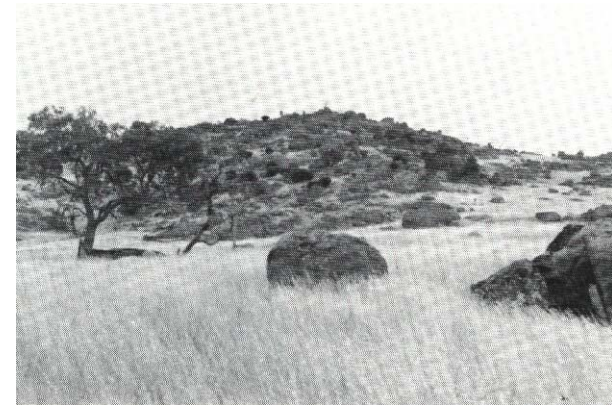
CLIMATE Rainfall (mm) Temperature (°C) Seasonal growth limitations	Annual, 400-450; lowest January (1 g), highest August (50) Annual, 15; lowest July (8), highest February (22) Temperature: less than 10 ⁰ C (av.) June-August Rainfall: less than potential evapotranspiration September-April	
GEOLOGY Age, lithology	Ordovician granite	
PHYSIOGRAPHY Elevation range (m) Relative relief (m) Drainage pattern Drainage density (km ⁻¹ sq. km) Land form	200-440 30 Radial 0.7 Steep hill	
LAND COMPONENT	1	2
Percentage of land system	90%	10%
PHYSIOGRAPHY Position on land form Slope (typical) and range (%) Slope shape	Upper slope 20,5-30 Convex	Lower slope 7,5-10 Convex
NATIVE VEGETATION Structure Dominant species	Woodland <i>E. microcarpa</i> <i>E. leucoxylon</i>	Woodland <i>E. microcarpa</i>
SOIL Parent material Description Classification Surface texture Surface consistence (dry) Depth (m) Nutrient status Available soil water capacity Perviousness to water Drainage Exposed stone Dispersibility Slaking tendency	Granite and granodiorite Uniform sandy loam soils Uc 4.31-2/1/030 Coarse sandy loam Soft 0-1-0.5 Very low throughout Very low Rapid Excessively drained Abundant (rock) Nil Nil	Granite and granodiorite Uniform sandy loam soils Uc 4.3 1 -2/1/030 Coarse sandy loam Soft 0.1-2 Very low throughout Very low Rapid Excessively drained Common (rock) Nil Nil
PRESENT LAND USE	Protection forestry, grazing	Protection forestry, grazing

Land deterioration hazards - Yowang Hill land system

Disturbance	Component	Affected process and trend	Primary resultant deterioration		Primary resultant off-site process
			Form	Susceptibility	
Altered vegetation -reduced leaf area, rooting depth, perenniality	1,2	Reduced transpiration, increased leaching	Nutrient decline	Low	Increased movement of water to groundwaters -
	1	Increased site wetness	Landslip	Moderate	
Reduced soil surface cover	1	Increased soil detachment	Sheet erosion	High	Increased flash flows and sediment loads Increased flash flows and sediment loads
	2	Increased soil detachment	Sheet erosion	Low	
Increased soil disruption	1	Increased subsoil detachment	Gully erosion	Moderate	Increased flash flows and sediment loads
Increased soil disruption and increased run-on	2	Increased subsoil detachment	Gully erosion	High	Increased flash flows and sediment loads



Increased run-off from the cleared, rocky hills saturates and erodes the deep sandy soils.



Proper grazing management can stabilise these droughty soils.