SIGNIFICANT FLORA
FACT SHEET

SIGNIFICANT AND ENDEMIC PLANT SPECIES ON LOW RANGES AND HILLS

These lands are particularly at risk because their generally well-watered state made them preferentially used for sheep grazing in the early years of European settlement.

OCCURRENCE

Low ranges and hills are a land type recognised mainly in the Flinders and Olary Ranges of the South Australian Arid Lands Region. It covers the great diversity of geology and soil types typical of the foothills; the main quartzite ranges which comprise the northern Flinders Ranges; and the whole of the range country and outlier hills which comprise what is variously known as the Olary Ranges, Bimbowrie Hills or the Olary Spur.

These lands include the pediplains and outwash fans adjacent to the hills and extending out from them. This land type is significant because it supports populations of endangered native plant species including the Spidery Wattle (*Acacia araneosa*), Slender Bellfruit (*Codonocarpus pyramidalis*), Small-leaved Xerothamnella (*X. parviflora*), Black-Fruited Bluebush (*Maireana melanocarpa*) and Slender Darling-Pea (*Swainsona murrayana*).

THREATS

These lands are particularly at risk because their generally well-watered state made them preferentially used for sheep grazing in the early years of European settlement.

During this time the land's capacity to carry stock was vastly over-estimated. In the latter part of the 18th century, for example, the area now comprising the Flinders Ranges National Park carried up to 120,000 sheep.

This resulted in the wholesale removal of palatable species such as Kangaroo Grass (*Themeda triandra*) and Bladder Saltbush (*Atriplex vesicaria*). Continued grazing has seen their replacement over time with unpalatable increaser plants such as Lemon-Scented Grass (*Cymbopogon ambiguus*), and invading weeds such as Salvation Jane (*Echium plantagineum*) and Onion Weed (*Asphodelus fistulosus*).

Unpalatable native shrubs like Prickly Wattle (*Acacia victoriae*) and Silver Wattle (*A. rivalis*) also dominate large areas where formerly they were a minor component of the understorey vegetation.

Evidence of the erosion caused by over-grazing is still obvious, particularly along the watercourses and floodout areas.

Although the capacity of this country to carry stock is now well known, it is still vulnerable to excessive total grazing pressure (the combined grazing impact of stock and water-dependent feral and native animals such as donkeys, goats and euros).

These unsustainable grazing pressures can extend well out onto the outwash plains adjacent to the Flinders Ranges both westward towards Lake Torrens, northward towards Lake Eyre, and eastward to Lake Frome.

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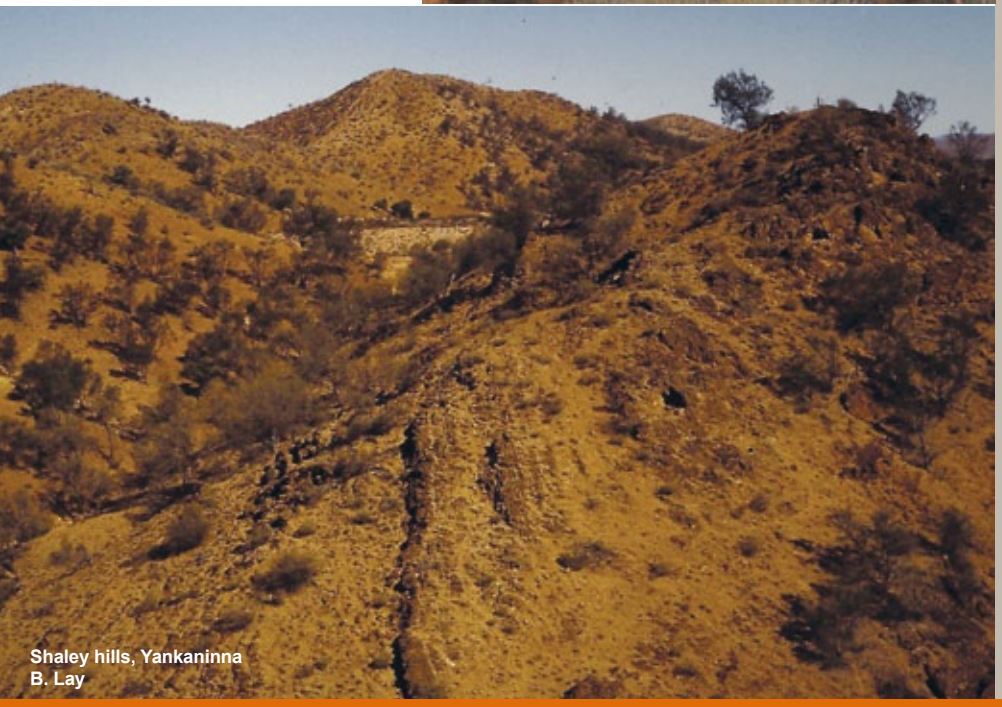
Xerothamnella parvifolia **near Moro Gorge**
K. Brewer

Codonocarpus pyramidalis **in Spinifex**
R. Brandle



Shaley hills, Yankaninna
B. Lay

CURRENT OR FUTURE TRENDS

Although the effective control of abundant native herbivores and feral goats is still an issue in some areas, significant areas of the low ranges and hills land types have recently been set aside from stock grazing in pastoral leases now used for conservation (ie. with a nil stocking rate). Coupled with the effectiveness of the Department of Environment and Natural Resources 'Bounceback' feral animal control programme, this augers well for the eventual recovery of these threatened vegetation types and endangered species.

The European rabbit, the cause of much of the current degradation, is eventually likely to recover from Rabbit Haemorrhagic Disease which currently keeps the population in check. Continued vigilance and warren destruction efforts are therefore required. Sustained feral goat and donkey control programmes will be required to eliminate these pests or to keep numbers below the level where damage is done to palatable species.

Re-introduction of some of the more important native plants (eg Bladder Saltbush) which have disappeared from the degraded valleys of the Flinders Ranges National Park is being undertaken by the Department of Environment and Natural Resources and is showing encouraging results.