

Best practice fire management for country



Sandridge after spelling © Susan Shephard

Sandriddles

Sandriddles are the dominant country type in central Cape York Peninsula. The main plants that are important to cattle are the perennial grasses Sorghum, Giant Spear, Cockatoo Grass and annual Fire Grass. Perennials need occasional spelling to keep their vigour, and to prevent their replacement by Hyptis. The seeds of Fire Grass are important food for seed-eating birds through the dry season. The seeds of perennial grasses are important in the wet season, when other seeds are scarce. The dominant trees, particularly messmate, tend to sucker if burnt in the early dry season, crowding the understorey. But this does not appear to lead to a greater density of

saplings or adult trees.

Do not burn sandridges when grasses are actively growing. Use early burning to focus grazing away from overgrazed areas. If burning to promote green pick, do not allow cattle to overgraze. Burn different areas each year. Storm-burn to keep understorey clear of suckers. Make sure each fire covers only a small area so that animals can recolonise quickly. (Regional Ecosystems: 3.5.1, 3.5.7a, 3.5.7x2, 3.5.12, 3.3.58)



Gravel slopes © Susan Shephard

Gravel slopes

The edges of the ranges often have shallow gravelly soils and a sparse, but diverse tree cover that includes ti-trees, ghost gums and quinine. Fire Grass dominates the ground cover, but there are pockets of Sorghum, Giant Spear and Cockatoo Grass. The perennial grasses need wet season spelling from grazing to maintain their vigour and prevent their replacement by Hyptis. As they are well-drained, seed persists in rock crevices even when most other seed has germinated. This makes gravel slopes important habitat for seed-eating birds in the early wet season. Ti-tree invasion of gravel slopes is slower than in the lowlands, but difficult to reverse, especially in areas grazed by stock.

In ungrazed areas, or where spelling allows a build up of grassy fuels, storm-burning every four to five years may be sufficient to keep these areas open. In grazed areas, more frequent burning is required. (Regional Ecosystems: 3.11.10a)



Black Spear Grass on hills © Susan Shephard

Ironbark ranges

Ironbark ranges support dense stands of Black Spear Grass. This grass is very robust, and benefits from storm-burning every three to four years. As cattle like to graze in the hills over the wet season, high stocking rates may be a problem. However overstocking is unusual, because difficult access discourages fencing of this rugged country. Inaccessibility also creates fire management problems.

Aerial Control Burning in the early dry season may be the best way to prevent widespread wildfires later in the year. (Regional Ecosystems: 3.11.8, 3.11.9, 3.11.11)



Box flat © J.R. Clarkson and V.J. Neldner

Box flats

Box flats in central Cape York Peninsula have a good covering of perennial grasses, notably Sorghum and Kangaroo Grass. These flats are not usually subject to vegetation thickening, but they do need spelling from grazing to maintain the vigour of the productive perennial grasses.

The best way to protect these productive grasslands from wildfires may be to burn the sandridges either side. Storm-burning may be used to remove rank grass and reduce fuel loads and fire risk. (Regional Ecosystems: 3.3.25a, 3.3.36)

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types of central Cape York Peninsula

Ti-tree flats

Ti-tree flats rapidly thicken with ti-tree suckers, and are then of little value for grazing, or for the plants and animals that depend on them. The main grass Wanderrie Grass is not very valuable as a forage species, but is supplemented with patches of perennial Sorghum and Cockatoo Grass where flats have not been over-grazed.

The best way to keep this country open is to spell it from grazing for a growing season to allow a build-up of grassy fuel, then to burn it soon after the first storms (see p 2). Storm-burning can reduce suckers, but has little or no effect on trees greater than 2 m tall. It is also important not to over-graze or burn the country too often, as this will reduce the abundance of quality perennial grasses, and the fuel loads needed to ensure a clean storm-burn. (Regional Ecosystems: 3.3.33, 3.3.42, 3.5.14, 3.3.52, 3.5.17, 3.5.14, 3.3.47)



Ti-tree flat after storm-burning © Gabriel Crowley

Open flats

Open flats support a healthy growth of Sorghum and both annual and perennial Kangaroo Grasses. They stay green late into the year. These grasses are valuable for cattle, but prone to overgrazing. They need periodic wet season spelling to maintain them. Open flats are also susceptible to invasion by ti-tree suckers, even more so if over-grazed. Golden-shouldered parrots that nest in antbeds on open flats are more successful than those that nests on thickened ti-tree flats.

Manage open flats by wet season spelling and storm-burning. In the early dry season, avoid burning open flats, as it promotes thickening. Instead burn the sandridges either side to create firebreaks. (Regional Ecosystems: 3.3.48, 3.3.56)



Open flat © Susan Shephard

Swamps

Although swamps may be considered to have a high carrying capacity for cattle, as they provide green feed for most of the year, grazing and trampling by pigs and cattle reduces water quality and the conservation values of these areas. Swamps that dry out late in the year are not usually damaged by fires, which can help to remove rank growth. More permanent swamps in central Cape York Peninsula do not appear to be threatened by fire. (Regional Ecosystem: 3.3.14)



Swamp on a sandridge © Gabriel Crowley

Scrub

Scrub has very little pastoral value. Scrub along major watercourses is best fenced out from stock and pigs to protect both the ecological values and water quality. Scrub is rarely threatened by fire in the central peninsula. It is fairly fire-resistant and acts as a natural fire break.

The value of these breaks can be increased by burning the adjoining drier sandridges early in the dry season.

Scrubs on hills and sandridges in this region are rarely threatened by fire, as there is usually little grass to act as fuel. If properties are well managed to minimise late dry season wildfires, additional management is usually unnecessary to protect scrubs. *However, where late dry season fires repeatedly damage scrubs, it is a good idea to burn low intensity fires around them in the early dry season.*

(Regional Ecosystems: 3.5.20, 3.7.1, 3.11.2b, 3.3.10)



Streamside scrub © Susan Shephard