NON-WOODY VEGETATION
OF THE WET TROPICS BIOREGION

Sedgelands (vegetation codes 69a-69h)

WET TROPICS MANAGEMENT AUTHORITY

Sedgeland communities are typically reliant on permanent moisture for survival. This wetland formation comprises species of Eleocharis, Gahnia and Lepironia, either as dominants or in association with a range of other life forms, including ferns, grasses and low shrubs. The formation can occupy a number of landform niches including drainage soaks on basement rock, volcanic craters and broad alluvial drainage depressions.

Gahnia sieberiana (sword grass) is a tough sclerophyllous sedge that dominates extensive areas of swamp in the Cape York Peninsula bioregion. Although its occurrence in the Wet Tropics bioregion is not as extensive, *Gahnia sieberiana* is still a prominent species in a number of coastal swamp communities, often as an understorey to *Melaleuca quinquenervia*. Small groves of *Gahnia sieberiana* also occupy seepage zones on the granite hillslopes of Cape Grafton (69a). It also forms an extensive sedgeland on the Thornton Peak map sheet, occurring in association with emergent *Melaleuca quinquenervia* and *Banksia robur* (69b), forming a broad, well defined wetland on deep peat soils at relatively high altitudes (460m). The occurrence of *Banksia robur* is significant, representing an outlier of a species whose stronghold is in south-east Queensland and north-eastern New South Wales.

Lepironia articulata is a perennial, tall, rhizomatous sedge species adapted to permanently waterlogged conditions and is often found occupying the wet margins of permanent water bodies. It is the dominant species in association 69c, which is an open wetland, occurring on deep peat soils in Wyvuri and Eubenangee Swamps. However the largest area of 69c is in Bulkuru Swamp to the south of the Etty Bay Road. Association 69d is an upland sedge community associated with broad drainage flats in the Kirrama region.

There are several sedgeland communities that express a large degree of variation from one location to the next and from season to season. These include the variable coastal swamp sedgeland (69e), the sedgelands associated with volcanic craters (69g and 69h) and a range of scattered ephemeral wetlands that occur sporadically across the broader landscape in response to groundwater seepage (69f). Association 69e is restricted to the Eubenangee Swamp wetlands where it can vary from a mixture of tussock sedgelands, continuous sedgelands, grasslands, fernlands and forblands. Prominent species include *Cyperus lucidus*, *Actinoscirpus grossus*, *Lepironia articulata*, *Panicum paludosum*, *Isachne globosa*, *Blechnum indicum* and *Persicaria strigosa*.

Association 69g is confined to swampy areas dominated by sedges and grasses found on the deep peat deposits within a number of volcanic craters on the Atherton Tablelands. Whilst sedgelands of similar floristic composition may be found in other areas, the unique geological context warrants its identification as a distinct type. An additional sedgeland association has been identified along the margins of Lake Euramoo (69h) on the basis of the presence of a broad fringe of *Phragmites* spp.

Facts and figures

Vegetation alliances	
	Gahnia sieberiana sedgeland
	Lepironia articulate sedgeland
	Variable sedgelands
Current extent in the bioregion	1822ha
Area protected	422ha (23%)

Impacts and changes

Major changes associated with drainage of swamps across the coastal lowlands has severely reduced the original extent of these communities, as well as interrupted their natural hydrological functions. Extensive areas in the Ingham lowlands are infested with *Hymenachne amplexicaulis* and a range of other exotic aquatic plant species. Remnants in Wyvuri and Eubenangee Swamps remain the best preserved examples of this formation and warrant a strong management focus.

Key values

As do all wetland ecosystems, major sedgeland communities play an important part of the hydrological regime of river basins, and their removal leads to increased concentration of flood flows with consequent streambank erosion and heightened flood events. The sedgelands provide habitat value to a broad range of fauna species and are important regulators of nutrient loads on flood plain systems. The reduction in extent and viability of lowland wetlands has resulted in increased nutrient dispersal into the near shore marine environment.

Threatening processes

- Habitat degradation through invasion by exotic species
- Direct drainage
- Interruption of natural cycles of replenishment through disruption of overbank flow pathways on riverine flood plains
- Wildfire in swamp communities that dry seasonally.

Tenure

The most valuable examples are in Eubenangee Swamp NP and Russell River NP.

Management considerations

- Reparation of interrupted/ artificial drainage system
- Control of infestations of exotic weeds
- Monitoring of nutrient loads within swamp ecosystems
- Fire management in sedgeland types dominated by *Gahnia sieberiana*.