

Dandaragan Nature Reserve Plans

The latest in a series of Nature Reserve Draft Management Plans being prepared by the Western Australian Department of Fisheries and Wildlife has been released. This document deals with Nature Reserves of the Shire of Dandaragan and, as with previous Draft Management Plans, will be open for public comment before a final Management Plan is prepared.

Excluding offshore islands there are 19 Nature Reserves wholly or partly within the Shire of Dandaragan. Together they cover an area of some 343 sq.km. or about five percent of the total area of the Shire. The reserves differ widely in size, the largest one wholly within the boundaries of the Shire being 10 854 ha. (Reserve No. 36053) and the smallest 3 ha. Five cover areas greater than 1 000 ha., and four are less than 100 ha.

This Plan deals with nine reserves in the southern half. The remaining mainland Nature Reserves and those on several small offshore islands within the Shire will be the subject of

later Draft Management Plans.

Dandaragan Shire covers an area of 6 754 sq.km. and lies roughly halfway between Perth and Geraldton on the coast. Its relatively small population of 1 960 persons is centred around the coastal towns of Jurien and Cervantes, and inland around Badgingarra and Dandaragan itself. The major industries of the Shire are broad-acre agriculture and fishing, particularly for rock lobster, based on Jurien and Cervantes. Tourism and recreation, bee keeping, the wildflower industry and mining are of lesser but variously developing importance.

Four physiographic units of major extent are represented in the Shire of Dandaragan: the Coastal Belt, the Bassendean Dune System, the Dissected Region and the Dandaragan Plateau. Each unit supports particular varieties of flora, vegetation types and fauna, each of which is contained within a representative Nature Reserve or Reserves.

A large proportion of land which has been developed for agricultural purposes in the Shire lies in the belt of the Dissected Region and the Dandaragan Plateau. On the other hand, most of the Bassendean Dune system and the Coastal region, remain undeveloped and are probably not suitable for agricultural purposes. As a result large areas of the Shire remain uncleared. Some parts of these areas are used by

▼ "Brown Honeyeater feeding on flowers of One-sided Bottlebrush *Calothamnus quadrifidus*, a spectacular sight awaiting the patient bird-watcher on such reserves as No. 23934 on Gillingarra Road." (Photo S. D. Hopper).



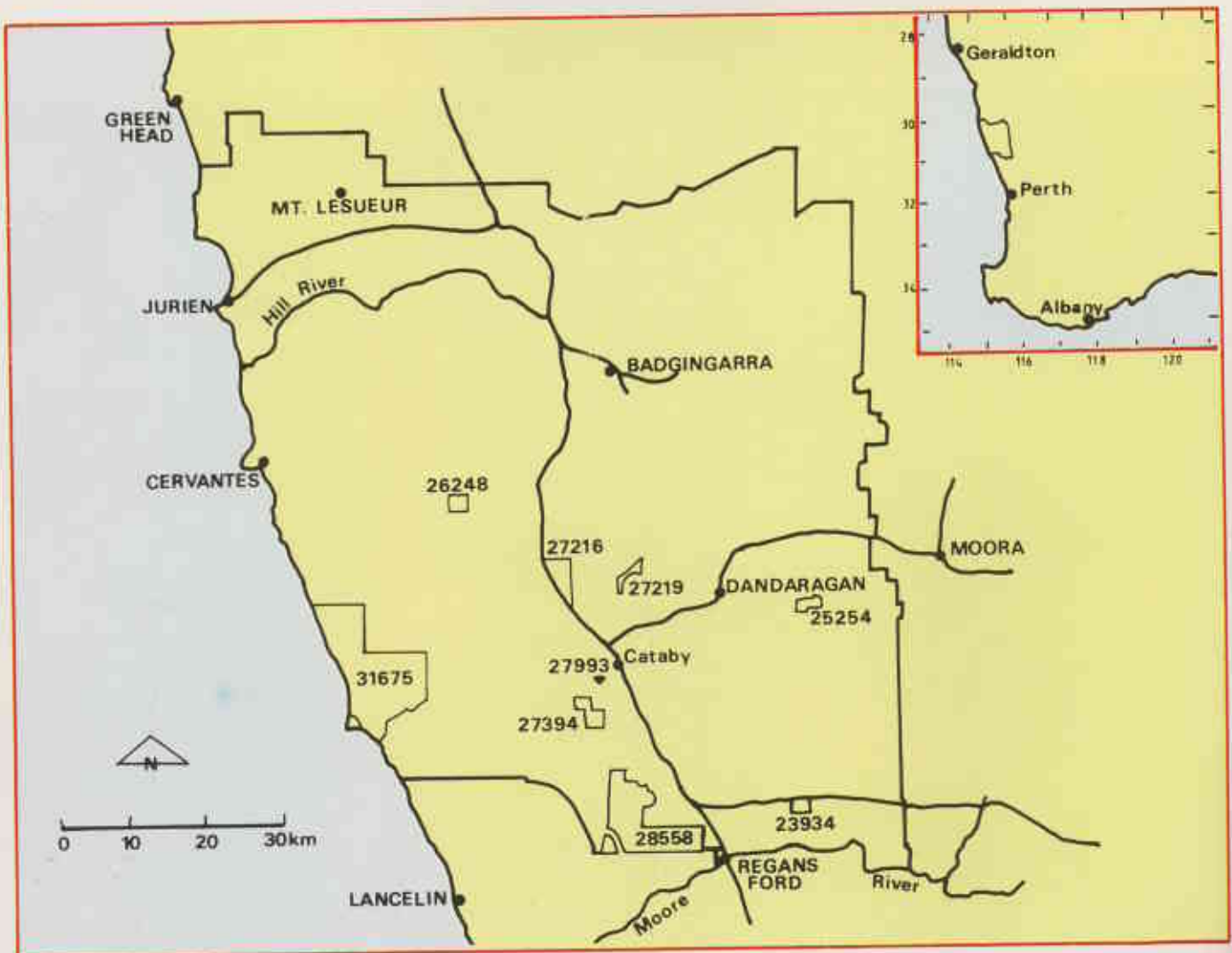


▲ "Grey Cottonhead *Conostylis condicans* growing with Spiny Cottonhead *Conostylis aculeata* at the inland junction of the coast region and the Bassendean Dune System east of Wanagarren Nature Reserve." (Photo S. D. Hopper).

apiarists and the wildflower industry as sources of nectar, plants, flowers and seeds. They also include three large and two smaller National Parks which are a focus for tourism and recreation in the Shire.

Vegetation in the Dandaragan Shire, when compared to near coastal areas to the north and south, can be seen to occupy a transitional position between areas of higher rainfall in which woodland vegetation predominates and that of lesser rainfall where heathlands are the predominant vegetation type (the northern heathlands).

These northern heathlands are floristically very rich. On one survey in the Mt. Lesueur area 67 different species of plants were recorded in an area of 500 sq.m. As well as their overall species-richness, the northern



heathlands support many endemic species (i.e. plants found nowhere else), plants which are rare and in need of special protection and many which are important to the State's wildflower industry.

The following are two examples of Nature Reserves found within the Shire and covered under the draft management plan:

Eneminga Nature Reserve

The Eneminga Nature Reserve (No. 27394) is an important refuge for waterfowl and is recognized as a key site in the W.A. Nature Reserve system, both as a freshwater wetland and as a breeding ground for waterbirds.

The Reserve, which has an area of 741 ha; lies near the northern end of a depression occupied by Eneminga Brook. The stream bed runs through the Reserve and is characterised by a series of long, narrow and shallow lakes which hold water in the winter, but are dry during the rest of the year. The remainder of the Reserve varies from heath-covered, winter-waterlogged lowlands to sandy ridges bearing stands of *Banksia* woodlands.

Although no formal survey of fauna has been carried out on the Reserve, 34 bird species have been recorded on various visits and inspections. This relatively large number and the range of species confirms that the Reserve supports a rich bird fauna. The reed beds and dense thickets of *Melaleuca* spp. found around the swamps provide ideal nesting sites for the wide range of waterfowl.

One of the primary objectives of management for the Reserve is the continuing maintenance of its values as a wetland and waterfowl habitat. Providing public use can be maintained without conflict with the major aims of conservation, the Reserve (which is open to duck hunting during open season) will continue to cater for the specialist interests of shooters and naturalists—the natural division of the seasons of their interest allowing for a minimum of conflict between the two uses.



▲ "The brilliant flowers of *Eremaea beaufortiioides* may be seen in the Dandaragan Shire during late spring and early summer." (Photo S. D. Hopper).

▼ "Posy triggerplant *Stylidium crossocephalum*. This common herb of the sandpiains within the Dandaragan Shire has been studied in detail by botanists at the University of Western Australia because of its remarkable variation in chromosome form." (Photo S. D. Hopper.)



TABLE 1. The Nature Reserves of the Shire of Dandaragan (excluding islands).

Reserve No.	Name	Area (ha)	Purpose	Vesting
855		12	Camping and Flora	Local Authority
23934		212	Flora and Fauna	W.A.W.A.*
24496†		70 013 (3 600)†	Flora	—
25254	Jam Hill	183	Flora	—
26248	Wongonderrah	439	Flora	—
27216		1 576	Rec'n Camping and Flora	Local Authority
27219	Minyulo	200	Flora and Fauna	W.A.W.A.
27277		131	Camping and Flora	—
27394	Eneminga	741	Flora and Fauna	W.A.W.A.
27871		206	Flora and Fauna	W.A.W.A.
27872		203	Flora and Fauna	W.A.W.A.
27993		21	Flora and Fauna	—
28558	Namming	5 411	Flora and Fauna	W.A.W.A.
31675	Wanagarren	11 138	Flora and Fauna	W.A.W.A.
33287	Hill River	293	Flora and Fauna	—
35191		3	Flora	—
35594		56	Flora and Fauna	—
36053		10 854	Agiculture and Flora	—
36093		882	Flora and Fauna	W.A.W.A.

*Western Australian Wildlife Authority.

†Reserve No. 24496 is mainly in the Shires of Carnamah, Coorow and Irwin. The area of the Reserve within the Shire of Dandaragan is given in parentheses.

The Reserve numbers (in blue) are dealt with in some detail in the Management Plan.

▼ "Copulating thynnid wasps on flowers of the paperbark *Melaleuca raphiophylla* at Minyolo Brook." (Photo S. D. Hopper).



Namming Nature Reserve

The Namming Nature Reserve (No. 28558) is also of great significance to the W.A. Nature Reserve system as a seasonal wetland and waterfowl breeding area because of the populations of uncommon species of animals and plants which it supports. Also valuable is its considerable expanse of *Banksia* woodlands and mixed species heathlands.

The Reserve is 5 411 ha. in area and is situated 4 km. north-west of Regans Ford. The southern boundary of the Reserve is also the southern boundary of the Shire of Dandaragan. Most of the Reserve is of gently undulating topography. There are several seasonal, fresh-water swamps on the Reserve and these are surrounded by varying successions of wetland to dry-land vegetation types. The system of wetlands of which this Nature Reserve forms a part (in conjunction with Eneminga Brook, Lake Guraga, Namming Lake and swamps further west) is a most significant one as a habitat for waterfowl. The values of the system as a whole are considerably greater than those of the individual wetland areas which are its parts.

The Draft Management Plan proposes an integrated scheme of management which provides for protection from fire, weeds and animal pests whilst permitting the controlled use of the Reserve by apiarists and professional and amateur environmentalists. The protection of the Reserve's flora and fauna is, of course, of paramount importance.

Namming Nature Reserve is perhaps most renown for the occurrence of the rare and endangered Rose Banksia (*Banksia laricina*) and the Freckled Duck (*Stictonetta naevosa*) (see S.W.A.N.S. Vol 10 No. 1).

The Freckled Duck shows primitive characteristics which link it with geese and swans as well as ducks and thus it is of great interest to the



▲ The northern heathlands of the Dandaragan Shire are floristically very rich. Botanists count the number of species within an area by systematically marking the areas off into small units. (Photo A. J. M. Hopkins).

scientific community.

The Rose Banksia is exceptional because it is the only known occurrence of the plant north of the Moore River. Small isolated patches of the Rose Banksia were located outside the bounds of Namming Nature Reserve in 1978, on unvested Crown Land. In May, 1979, two areas of this Crown Land containing the Rose Banksia were added to the Reserve.

The Namming and Eneminga Nature Reserves are the most noteworthy areas dealt with in this Draft Management Plan. A further seven Reserves are covered in some detail by the Plan.

Any individuals or organisations interested in commenting on the Department's Draft Management Plan for the Dandaragan Nature Reserves may obtain copies of the Plan (free of charge) from:-

**EXTENSION AND PUBLICITY
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*Adapted for SWANS from draft
Management Plan No. 5 by I. G.
Crook, A. E. Williams and
G. R. Chatfield.*