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SOME NATURE RESERVES OF THE WESTERN AUSTRALIAN
WHEATBELT

PART 22 : QUAIRADING SHIRE

B.G. MUIR
WESTERN AUSTRALIAN MUSEUM

1979

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SOME NATURE RESERVES OF THE

QUAIRADING SHIRE

B.G. MUIR

Introduction

Quairading Shire lies in the central wheatbelt and has an area of 1696 square km. There are 21 Nature Reserves within the Shire totalling ca 42 square km or ca 2.5% of the area of the Shire. Two-and-a-half percent is a fairly large proportion of the Shire when compared with most other shires. However, of the reserves examined in this survey, ca 353 ha or 75% of the 468 ha reserved is salt marsh with little vegetation. Additionally the largest reserve in the Shire (Channel Lakes; 28088 : 2424 ha) is mostly salt flats. Thus nearly half of the reserved land is salt flat.

Of the 21 Nature Reserves, 17 are less than 200 ha in area and 15 less than 100 ha in area. The only large reserve, as stated above, is salt flat.

Several of the reserves are vested: Reserves 16405, 11776 and 19325 are vested in the Minister for Water Supply, Sewerage and Drainage, 13321 in the Local Authority and 18342, A11048, 11372, 28088 and A11039 in the Western Australian Wildlife Authority. The remaining 12 are unvested.

This survey took place in July 1979 and consisted of brief examination of Reserves 10121, 13217, 23141, 28317, 28318, 28319, 31032 and 30299. A report on each of these reserves is attached.

Methodology

Physical characteristics of the reserves were obtained directly from the most recently available lithographs as published by the Department of Lands and Survey, and interpreted from observations made on the reserve.

Reserves were examined by vehicle where tracks were available, and on foot. Local knowledge and air-photographs were consulted to find areas of particular interest. Only a very short time could be spent on each reserve, the smaller ones being examined in 1 or 2 hours, the larger ones in a full day.

Vegetation was classified using Muir's (1977) system (Table 1), which was designed specifically for describing wheatbelt vegetation. In the presentation of the abbreviated descriptions (in the section titled "Vegetation") capital letters in descriptive terms refer to specific classes of life form, height and canopy cover as used in the classification.

As the survey period on any reserve was very brief only the commonest plant species could be noted. Any species in which less than 3 individual plants were encountered within a space of 10-15 minutes examinations of the vegetation were considered uncommon and are not listed. As much of the survey work was carried out rapidly and in unfavourable seasons, many plants were not flowering and so identifications were made from foliage alone. Only if an important dominant plant was not recognised were specimens bought back to the laboratory for examination.

Soil was examined very briefly and classified according to Northcote's (1971) texture groups and Munsell (1954) colour terms.

Fire history was determined from observation of the area, appearance of air-photographs and information from nearby farmers.

Fauna were not specifically sought, but some species (usually the most obvious) were encountered while examining vegetation. The lists provided are only a small fraction of the species present on nearly every reserve examined. Scats, footprints, burrows, nests and other indirect evidence is used only where identification is certain. Observations by farmers are used if considered reliable.

TABLE 1: VEGETATION CLASSIFICATION AS USED IN WHEATBELT SURVEY

LIFE FORM/HEIGHT CLASS	CANOPY COVER			
	DENSE d 70-100%	MID-DENSE c 30-70%	SPARSE i 10-30%	VERY SPARSE r 2-10%
T Trees >30m M Trees 15-30m LA Trees 5-15m LB Trees <5m	Dense Tall Forest Dense Forest Dense Low Forest A Dense Low Forest B	Tall Forest Forest Low Forest A Low Forest B	Tall Woodland Woodland Low Woodland A Low Woodland B	Open Tall Woodland Open Woodland Open Low Woodland A Open Low Woodland B
KT Mallee tree form KS Mallee shrub form	Dense Tree Mallee Dense Shrub Mallee	Tree Mallee Shrub Mallee	Open Tree Mallee Open Shrub Mallee	Very Open Tree Mallee Very Open Shrub Mallee
S Shrubs >2m SA Shrubs 1.5-2.0m SB Shrubs 1.0-1.5m SC Shrubs 0.5-1.0m SD Shrubs 0.0-0.5m	Dense Thicket Dense Heath A Dense Heath B Dense Low Heath C Dense Low Heath D	Thicket Heath A Heath B Low Heath C Low Heath D	Scrub Low Scrub A Low Scrub B Dwarf Scrub C Dwarf Scrub D	Open Scrub Open Low Scrub A Open Low Scrub B Open Dwarf Scrub C Open Dwarf Scrub D
P Mat plants H Hummock Grass GT Bunch grass >0.5m GL Bunch grass <0.5m J Herbaceous spp.	Dense Mat Plants Dense Hummock Grass Dense Tall Grass Dense Low Grass Dense Herbs	Mat Plants Mid-Dense Hummock Grass Tall Grass Low Grass Herbs	Open Mat Plants Hummock Grass Open Tall Grass Open Low Grass Open Herbs	Very Open Mat Plants Open Hummock Grass Very Open Tall Grass Very Open Low Grass Very Open Herbs
VT Sedges >0.5m VL Sedges <0.5m	Dense Tall Sedges Dense Low Sedges	Tall Sedges Low Sedges	Open Tall Sedges Open Low Sedges	Very Open Tall Sedges Very Open Low Sedges
X Ferns Mosses, liverwort	Dense Ferns Dense Mosses	Ferns Mosses	Open Ferns Open Mosses	Very Open Ferns Very Open Mosses

Results and Discussion

The features of each Reserve can be summarised as follows:

Reserve 10121 - ca 60 ha; salt marsh; should be retained undisturbed.

Reserve 13217 - ca 24 ha; gimlet woodland; useful windbreak, prevents salt encroachment.

Reserve 23141 - ca 61 ha; woodland, mallee, shrubland; fairly rich in plants; valuable windbreak and rest area for transient birds.

Reserve 28317 - ca 26 ha; salt marsh; contains some scarce or poorly distributed species including a rare Anthotroche; should be retained undisturbed.

Reserve 28318 - ca 56 ha; salt marsh; should be retained undisturbed.

Reserve 28319 - ca 40 ha; salt marsh; should be retained undisturbed.

Reserve 30132 - ca 30 ha; Salmon Gum and Wandoo Woodlands; worth retaining.

Reserve 30299 - ca 171 ha; salt marsh; should be retained undisturbed.

Five of the 8 reserves examined are salt marsh and all are small. Quairading Shire would thus be one of the prime areas in the wheatbelt where effort should be made to obtain and preserve uncleared areas of bushland while some still remains. Large reserves and those with vegetation other than salt complex are scarce. Nonetheless, even the most apparently uninteresting salt complex reserves are of value as shown by Reserve 28317. This Reserve has a Bassia and Hibbertia of uncertain affinities, an Acanthocarpus which is undescribed and Anthotroche healiana, a rare and endangered plant last collected ca 70 years ago (L. Haegi, National Herbarium of N.S.W., Sydney, pers. comm.). Such a discovery on this Reserve emphasises the need for retention of even the most insignificant blocks of land until such time as they can be thoroughly investigated.

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MUIR, B.G. (1977). Vegetation and habitat of Bendering Reserve. Biological survey of the Western Australian wheatbelt. Pt. 2. Rec. West. Aust. Mus. Suppl. no. 3.

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Acknowledgements

Jennifer H. Muir and Ian Simpson assisted in the field. Staff of the W.A. Herbarium offered helpful advice with identifications.

Reserve 10121

Located ca 9 km ENE of Quairading Townsite and ca 1.6 km N of Badjaling Siding. Shown on lithograph 3/80, F3 and 1:50,000 Youndegin sheet (2334-11).

Background

Originally set aside for "Water Supply" on 30 March 1906. Changed to "Public Utility" on 7 November 1930. Decreased to its present size on 19 February 1954. Changed to "Conservation of Flora and Fauna" on 30 July 1971.

Physical characteristics

Reserve 10121 is square, with a total perimeter of ca 3.1 km and an area of 59.8378 ha. It is ca 225 m above sea level and has a topographic range of ca 2 m.

Vegetation

Salt marsh with samphires and raised areas with shrubs and scattered York Gum.

Plant species

Eight species were recorded.

Nest hollows

None seen; no young trees present.

Weeds

Scattered ephemerals on raised areas.

Fire history

No evidence of fire, most of vegetation would not support fire.

Fauna

None recorded.

Exotic fauna

None recorded.

Firebreaks and fences

No firebreaks, marginal fences only.

Human usage

None recorded.

Adjacent uncleared land

Extensive salt flats contiguous with Reserve.

Opinion and recommendations

As for most reserves with salt vegetation, disturbance can cause further encroachment onto farmland. Reserve 10121 is of this nature, and should be retained in its present form and vested in the Western Australian Wildlife Authority.

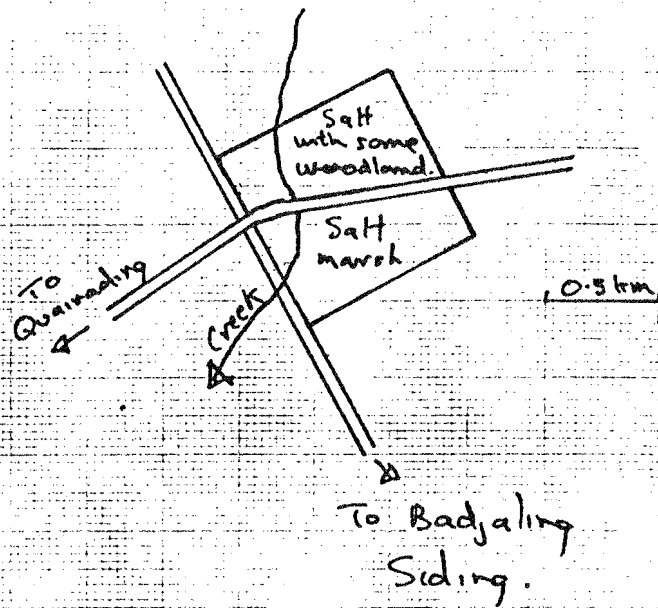
APPENDIX 1

Reserve 10121

Salt marsh

Salt marsh with Arthrocnemum bidens and A. halocnemoides and patches of Eucalyptus loxophleba with some Melaleuca cymbifolia, M. hamulosa and M. uncinata. Occasional Lycium australe and Santalum acuminatum present.

Reserve 10121



Reserve 13217

Located ca 13 km ESE of Quairading Townsite and ca 6 km SE of Badjaling Siding. Shown on lithograph 3/80, F4 and 1:50,000 Pikaring Sheet (2433-IV).

Background

Originally set aside as "Rabbit Department Paddock" on 27 January 1911, with an area of ca 490 ha. It was decreased to its present area of ca 24 ha plus the area of Reserve 17682 (total 26 ha) on 21 May 1920. Reserve 17682 was removed from Reserve 13217 on 8 April 1921. Reserve 13217 was declared for "Flora" on 12 June 1953.

Physical characteristics

Reserve 13217 is approximately rectangular, ca 0.8 km long (E-W axis) by ca 0.4 km broad (N-S axis). It has a total perimeter of ca 2.4 km and an area of 24.2811 ha. The lowest point on the Reserve is ca 234 m above sea level, and it has a topographic range of ca 2 m.

Vegetation

Gimlet Open Woodland over Acacia Open Dwarf Scrub D.

Plant species

Fourteen plant species were recorded, of which 5 are exploited by the wildflower seed trade.

Nest hollows

Scattered nest hollows in woodland area. Trees mostly senescing because of salt encroachment. Very few young trees present.

Weeds

Abundant small ephemerals and grasses, particularly along creek edges.

Fire history

No evidence of fire within the last 30 years.

Fauna

Mountain Duck (Tadorna tadornoides): 2 perched in tree.

Nankeen Kestrel (Falco cenchroides): 1 over Reserve.

Grey Fantail (Rhipidura fuliginosa): 1 near creek.

Singing Honeyeater (Meliphaga virescens): 2 in Gimlet.

Exotic fauna

Rabbit scats were noted.

Firebreaks and fences

Firebreaks in adjacent farmland. A road is on the S side of the Reserve. All sides are fenced.

Human usage

Some timber has been removed.

Adjacent uncleared land

Absent except for small areas following the creek.

Opinion and recommendations

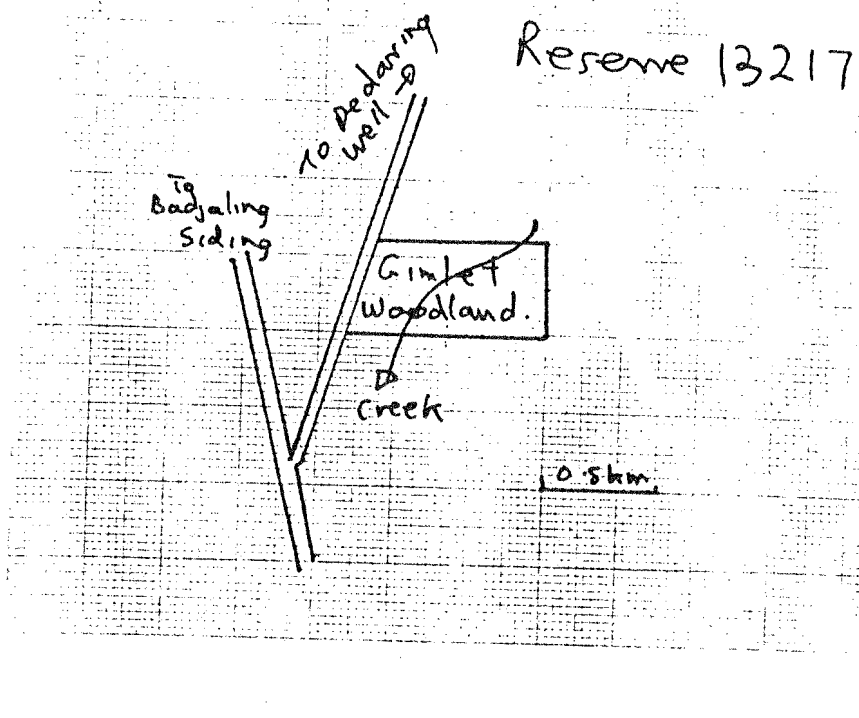
Reserve 13217 is valuable in slowing further salt encroachment onto adjacent farmland and is useful wind break. In its present form it is utilised by some fauna and is of value as a rest site and nesting area. I recommend it be retained in its present form and that it be vested in the Western Australian Wildlife Authority.

APPENDIX 2

Reserve 13217

Gimlet woodland

Eucalyptus salubris trees, 20-26 m tall, 2-10% canopy cover over Acacia merrallii, 0.5 m tall, 2-10% cover. Some young E. salubris to 12 m. Also recorded were: Acacia erinacea, A. merrallii, Daviesia sp., Enneapogon caerulescens, Grevillea acuaria, Melaleuca acuminata, M. adnata, Olearia muell. Rhagodia nutans, R. preissii, Santalum acuminatum, Stipa elegantissima.



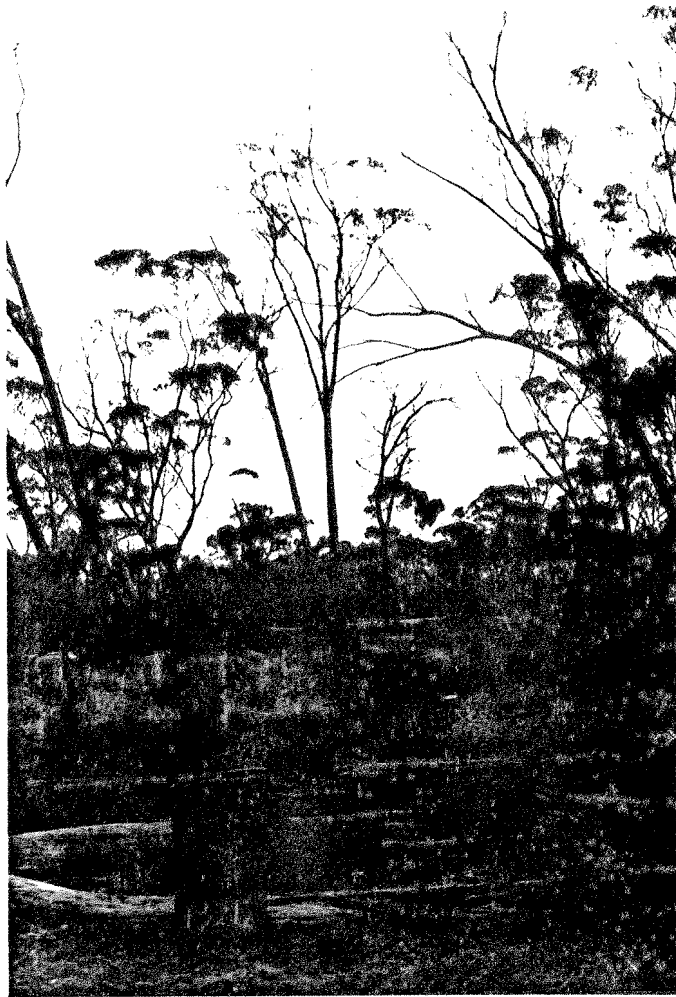


plate 1. Reserve 13217 showing Gimlet woodland which is senescing as a consequence of salt encroachment.

Reserve 23141

Located ca 1.6 km W of Pickaring Hill and ca 18 km SSW of Kwalyin Townsite.
Shown on lithograph 4/80, B4 and 1:50,000 Pikaring Sheet (2433-IV).

Background

Originally set aside for "Conservation of Flora" on 15 September 1950.

Physical characteristics

Reserve 23141 is rectangular, ca 1.3 km long (E-W) by ca 0.5 km broad (N-S) and with a total perimeter of ca 3.5 km and an area of 60.7028 ha. Lowest point on the Reserve is ca 289 m above sea level and there is a topographic range of ca 30 m.

Vegetation

- (1) York Gum Woodland with no understory.
- (2) Eucalyptus foecunda Shrub Mallee over mixed Open Dwarf Scrub C.
- (3) Tamna Thicket over Very Open Low Sedges.
- (4) Tamna Open Low Scrub B over mixed Low Heath D.

Plant species

Sixty-six species of plants were recorded, including 15 exploited by the wildflower seed trade.

Nest hollows

Some in woodland. A few young trees are present.

Weeds

Scattered ephemerals found only in woodland.

Fire

No evidence of fire for at least 30 years.

Fauna

Grey Kangaroo (Macropus fuliginosus): 2 seen in Tamma.

Welcome Swallow (Hirundo neoxena): several flying.

Willie Wagtail (Rhipidura leuophrys): 2 seen in heath.

White-browed Babbler (Pomatostomus superciliosus): flock of 8 in Tamma.

Red Wattle-bird (Anthochaera carunculata): 3 seen in York Gum.

Black-faced Wood-swallow (Artamus cinereus): 4 on dead tree.

Pied Butcherbird (Cracticus nigrogularis): 1 in York Gum.

Australian Raven (Corvus coronoides): several flying over Reserve.

Exotic fauna

Some rabbit scats noted.

Firebreaks and fences

Marginal firebreaks in adjacent paddocks. The N and E sides are fenced, the other two sides have roadways and are unfenced.

Human usage

A track runs through the Reserve.

Adjacent uncleared

None.

Opinion and recommendations

Although of small area Reserve 23141 is quite diverse in associations and rich in plant species. It contains nest hollows and is valuable windbreak and resting site for transient birds. I recommend it be retained in its present form and that it be vested in the Western Australian Wildlife Authority.

APPENDIX 3

Reserve 23141

York Gum woodland

Eucalyptus loxophleba trees, 15-20 m tall, 10-30% cover. No understory. Other species recorded were: Acacia microbotrya, A. saligna, Amphipogon debilis, Borya nitida, Hakea lissocarpha, Loxocarya pubescens, Olearia revoluta, Patersonia sp. Soil reddish brown or grey loamy sand; well to moderately drained. This association near the E end of the Reserve is E. loxophleba 7-12 m tall and 2-10% cover over Acacia acuminata trees 5 m tall, 2-10% cover. Acacia microbotrya, Dianella revoluta, Stipa elegantissima.

Mallee area

Eucalyptus foecunda shrub mallee, 4 m tall, 30-70% cover over mixed shrubs 1 m tall, 2-10% cover. Also recorded were: Acacia microbotrya, A. saligna, Amphipogon debilis, Calytrix sp., Dianella revoluta, Hakea lissocarpha, Hibbertia enervia, Loxocarya pubescens, Melaleuca scabra, Muhlenbeckia adpressa, Olearia revoluta, Osteospermum clandestinum, Patersonia sp., Rhagodia preissii, Santalum acuminatum, Stipa elegantissima. Soil greyish brown, loamy sand; well drained.

Tamma shrubland

Casuarina campestris shrubs, 2.5 m tall 30-70% canopy cover over Mesomelaena uncinata, 0.5 m tall, 2-10% cover. Other species recorded were: Acacia filifolia, A. pulchella glaberrima, Andersonia lehmannii, Astroloma serratifolium, Baeckea crispiflora, Borya nitida, Cassytha pubescens: (on Melaleuca seriata), Casuarina huegeliana, C. microstachya, Choretrum glomeratum, Cryptandra affin. arbutiflora, C. myriantha, Daviesia brevifolia, D. nudiflora, Dryandra cirsioides, D. affin. nivea, Eremaea pauciflora, Gastrolobium hookeri, Grevillea pilulifera, Hakea incrassata, H. lissocarpha, H. subsulcata, H. varia, Hibbertia affin. hypericoides, Lepidosperma angustatum,

Leptospermum erubescens, Leucopogon blepharolepis, Lysinema ciliatum,
Lyginea barbata, Melaleuca seriata, M. subtrigona, Patersonia sp., Persoonia
striata, Petrophile ericifolia, Santalum spicatum, Schoenus subbulbosus,
Synaphaea polymorpha, Verticordia brownii, V. chrysantha, Xanthorrhoea nana.
Soil yellowish brown, loamy sand with ca 5% laterite pebbles; well drained.

Tamma heath

Casuarina campestris shrubs 1.5 m tall, 2-10% cover over mixed shrubs,
0.5 m tall 30-70% cover. Species recorded were: Baeckea crispiflora,
Casuarina acutivalvis, C. humilis, Dampiera juncea, Daviesia brevifolia,
Dryandra cirsioides, Gastrolobium spinosum and Petrophile seminuda. Soil
details were not recorded.

Reserve 23141

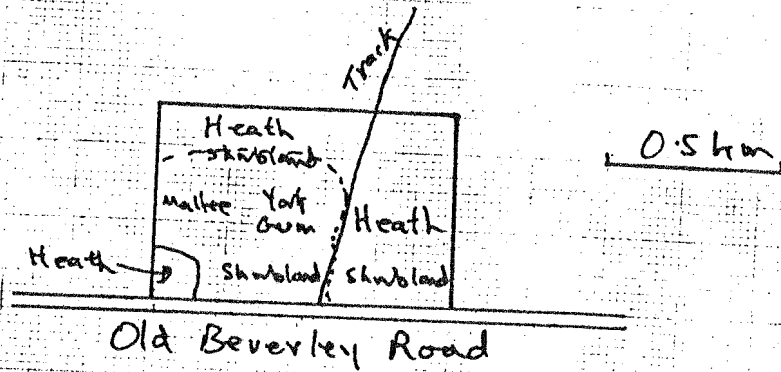




Plate 2. York Gum woodland on Reserve 23141.



Plate 3. Mallee area with understory of mixed shrubs.



Plate 4. Heath area on Reserve 23141 with Tamma shrubland in the background.

Reserve 28317

Located ca 9 km directly S of Quairading and shown on lithograph 3/80, D-E 4 and 1:50,000 Quairading Sheet (2333-1).

Background

Originally set aside for "Conservation of Flora" on 14 October 1966.

Physical characteristics

Reserve 28317 is diamond shaped, with the long axis trending NE-SW and the narrow axis NW-SE. Total perimeter of the Reserve is ca 2.7 km and the area 26.4145 ha. It is ca 225 m above sea level and with a topographic range of ca 2 m.

Vegetation

The whole Reserve is salt marsh with low dunes with scattered trees and some shrub cover.

Plant species

Twenty-six plant species were recorded of which 7 are exploited by the wildflower seed trade. An undescribed Acanthocarpus and a Bassia and Hibbertia of uncertain affinities were recorded. Anthotroche healiana is a rare and endangered species found on the Reserve.

Nest hollows

Occasional in York Gums killed by salt encroachment.

Weeds

Abundant ephemerals in raised areas with poor drainage but not greatly affected by salt.

Fire history

Probably unburnt for a very long time as the surrounding vegetation would not support fire.

Fauna

Welcome Swallow (Hirundo neoxena): numerous flying over Reserve.

Chestnut-rumped Thornbill (Acanthiza uropygialis): common in shrubland.

White-fronted Chat (Epthianura albifrons): common.

Zebra Finch (Peophila guttata): flock of 12 in Melaleuca uncinata shrub.

Exotic fauna

None recorded.

Firebreaks and fences

No firebreaks. Fences in poor condition.

Human usage

Some timber has been removed from the York Gum areas.

Adjacent uncleared land

Extensive salt flats contiguous with the Reserve.

Opinion and recommendations

Reserve 28317, despite its limited habitats for fauna, is an area worth retaining.

Its value for reducing water erosion and assisting to slow salt encroachment onto adjacent farmland is considerable. The long-unburnt nature of the vegetation may well be a contributing factor in the survival of several scarce plants including Anthotroche healiana. I recommend that Reserve 28317 be retained in its present form and that it be vested in the Western Australian Wildlife Authority. I also recommend further investigations to find why this habitat has retained several rare species.

APPENDIX 4

Reserve 28317

Salt marsh

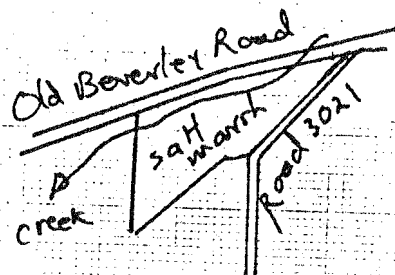
Flat, almost bare salt marsh with marginal stands of Arthrocnemum halocnemoides and A. bidens. Low sandy dunes have scattered Eucalyptus loxophleba trees to 7 m tall and Melaleuca uncinata shrubs to 3 m tall. Other species recorded were: Acacia acutata, Acacia graffiana, A. pulchella, Acanthocarpus sp. 1., Alyxia buxifolia, Anthotroche healiana, Bassia sp., Carpobrotus edulis, Comesperma volubile, Constephium preissii, Dianella revoluta, Disphyma blackii, Enchylaena tomentosa, Eremophila brevifolia, Exocarpus aphyllus, E. sparteus, Hibbertia sp., Leptospermum erubescens, Melaleuca hamulosa, Ptilotus polystachys, Rhagodia nutans, Stipa elegantissima.
Dune.

Soil is pinkish grey, loamy sand; well drained but seasonally waterlogged.

Lake
Yenyening



Reserve 28317



10.5 km



Plate 5. Bare salt flat on Reserve 28317 with a low dune with trees and shrubs in the distance.

Reserve 28318

Located ca 7 km due E of Quairading Townsite and ca 2 km W of Badjaling Siding. Shown on lithograph 3/80, EF3-4 and on 1:50,000 Quairading Sheet (2333-1).

Background

Originally set aside for "Conservation of Flora" on 14 October 1966.

Physical characteristics

Reserve 28318 is rectangular/triangular, ca 1.6 km long (E-W axis) by ca 0.4 km broad, (N-S axis) and with a total perimeter of ca 3.5 km and an area of 55.5102 ha.

The Reserve is ca 225 m above sea level and the topographic range ca 1 m.

Vegetation

The entire Reserve is salt marsh, much of it covered with dead shrubs and trees.

Plant species

Six plant species were recorded.

Nest hollows

None.

Weeds

Scattered ephemerals on slight humps in the salt flats.

Fire history

The vegetation would not support fire.

Fauna

None recorded.

Exotic fauna

None recorded.

Firebreaks and fences

No firebreaks; marginal fences.

Human usage

None.

Adjacent uncleared land

Extensive salt marsh contiguous with Reserve.

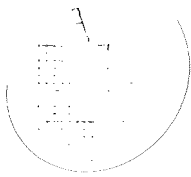
Opinion and recommendations

Reserve 28318 is of little value for conservation purposes but is valuable for soil conservation in an area becoming progressively salt-prone. I recommend that Reserve 28318 be retained in its present form and be vested in the Western Australian Wildlife Authority. This vesting will assure that it is inspected periodically and any disturbances noted.

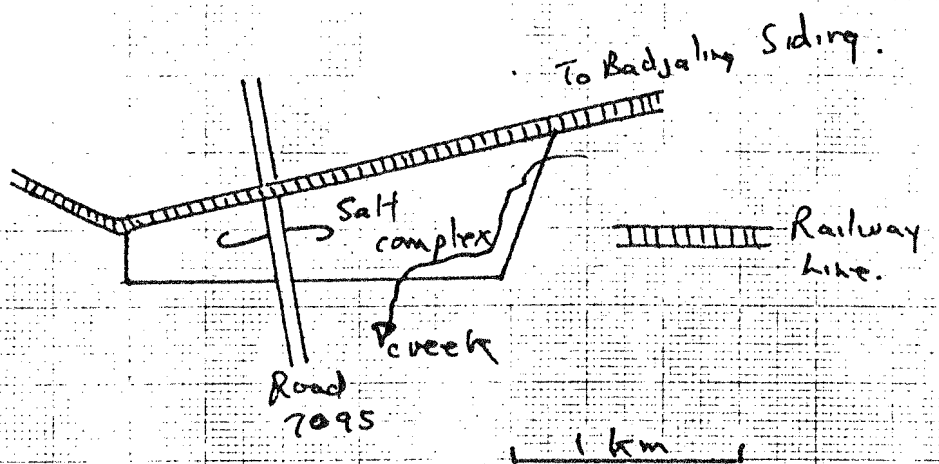
APPENDIX 5

Reserve 28318

Salt marsh with scattered Arthrocnemum halocnemoides and A. bidens on any slight rise in the topography. Enchylaena tomentosa and Lycium australe also recorded. Original vegetation was Melaleuca uncinata shrubs 3 m tall. Soil mostly silt and clay, seasonally waterlogged.



Reserve 28318



Reserve 28319

Located ca 5 km SE of Quairading Townsite and ca 6 km SW of Badjaling Siding. Shown on lithograph 3/80, E4 and 1:50,000 Quairading sheet (2333-1).

Background

Originally set aside for "Conservation of Flora" on 21 October 1966.

Physical characteristics

Reserve 28319 is rectangular, ca 0.8 km long (E-W axis) by ca 0.5 km broad (N-S axis). It has a total perimeter of ca 2.6 km and an area of 40.4762 ha. The reserve is very flat, ca 225 m above sea level and with a topographic range of ca 1 m.

Vegetation

The entire Reserve is salt marsh.

Plant species

Arthrocnemum halocnemoides and A. bidens were recorded.

Nest hollows

None.

Weeds

Scattered small ephemerals on raised areas.

Fire history

The vegetation would probably never support a fire.

Fauna

None recorded.

Exotic fauna

Sheep and rabbits recorded.

Firebreaks and fences

Marginal fences.

Human usage

None recorded.

Adjacent uncleared land

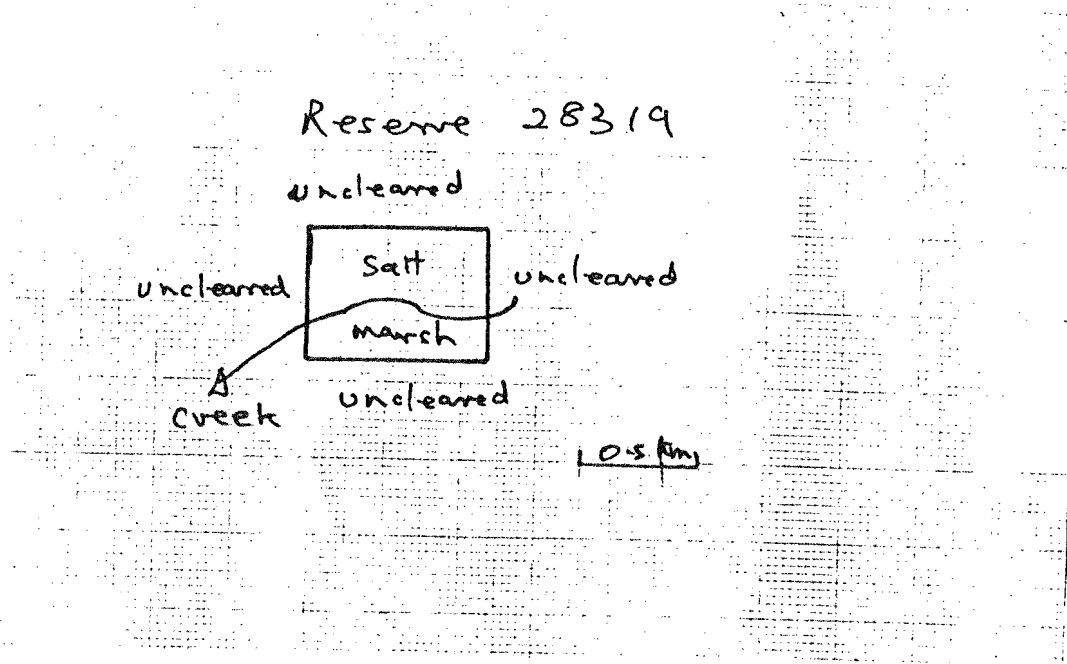
Extensive salt marsh contiguous to reserve.

Remarks

No access except through adjacent properties.

Opinion and recommendations

Reserve 28319 is valuable for soil conservation in salt land and should be retained in its present form. To ensure periodical inspection it should be vested in the Western Australian Wildlife Authority.



Reserve 30132

Located at Dulbelling Siding, ca 14 km SWS of Quairading Townsite and shown on lithograph 3/80, CD4 and on 1:50,000 Quairading Sheet (2333-1).

Background

Originally gazetted 5 December 1969, for "Conservation of Flora and Fauna".

Physical characteristics

Reserve 30132 is rectangular with a truncated SW corner. It is ca 0.9 km long (E-W axis) and ca 0.4 km broad (N-S axis). It has a total perimeter of ca 2.4 km and the E and W boundaries are inclined to 333° W. The area is 30.0660 ha and the topographic range ca 10 m, the lowest point being ca 260 m above sea level.

Vegetation

- (1) Salmon Gum Woodland over Jam and Huegel's Casuarina Open Low Woodland A.
- (2) Wandoo Low Woodland A.

Plant species

Forty-two plant species were recorded, 13 of which are exploited by the wildflower seed trade.

Nest hollows

Abundant nest hollows, mainly in Wandoo trees. Some young trees present.

Weeds

Abundant throughout, particularly along creek. Mostly small ephemerals, some grass and Guildford Grass (Rumulea rosea). Some lupin plants (Lupinus angustifolius) near fenceline in one area.

Fire history

No evidence of fire.

Fauna

Kookaburra (Dacelo gigas): 2 in woodland.

Western Shrike-Thrush (Colluricincla harmonica rufiventris): 1 calling in Wandoo.

Grey Fantail (Rhipidura fuliginosa): 2 near creek.

Weebill (Smicrornis brevirostris): common in Wandoo.

Western Silvereye (Zosterops lateralis gouldii): common in Wandoo.

Red Wattle-bird (Anthochaera carunculata): 2 in Wandoo.

Exotic fauna

Rabbit scats common.

Firebreaks and fences

No firebreaks, fenced only where adjacent to farmland.

Human usage

Rubbish dumped in some areas. Some timber removed.

Adjacent uncleared land

About 10 ha of uncleared bushland is contiguous with the Reserve.

Opinion and recommendations

Reserve 30132 has substantial stands of woodland which provide abundant nest sites for birds. Despite heavy infestations of Guildford Grass there are quite a few understory plant species, many of which provide valuable food sources for birds and invertebrates. I recommend the Reserve be retained in its present form and that it be vested in the Western Australian Wildlife Authority.

APPENDIX 6

Reserve 30132

Salmon Gum woodland

Eucalyptus salmonophloia trees, 16-26 m tall, ca 10-30% canopy cover over scattered Eucalyptus loxophleba trees 10-16 m tall over Acacia acuminata and Casuarina huegeliana trees 4-7 m tall, 2-10% cover. Also recorded were Amphipogon debilis, Bossia sp., Daviesia preissii, Dianella revoluta, Gahnia ancistrophylla, Mesomelaena uncinata, and Stipa elegantissima. Soil yellowish brown, sandy clay loam; moderately drained.

Wandoo woodland

Eucalyptus wandoo 4-12 m tall, 10-30% cover. Other plants recorded were: Acacia pulchella, Bossia sp., Calytrix affin. fraseri, Casuarina campestris, Conostylis setigera, Cyperus tenuiflorus, Daviesia nudiflora, Dianella revoluta, Gastrolobium plicatile, Grevillea paniculata, Hypocalymma angustifolium, Loxocarya pubescens, Melaleuca hamulosa, Opercularia vaginata, Pimelia argentea, Stylidium sp., Suada sp., Verticordia chrysantha. Soil pinkish grey, fine sandy clay loam. Poorly drained.

Creek

Acacia saligna, A. lasiocalyx and Juncus pallidus are present along the creek. Melaleuca acuminata grows on the banks.

Track in Salmon Gum woodland

The following species were recorded: Acacia graffiana, Amphipogon debilis, Dampiera spicigera, Dianella revoluta, Enchylaena tomentosa, Hakea lissocarpa, H. preissii, Lepidosperma tenue, Lomandra effusa, Loxocarya pubescens, Olearia revoluta, Podolepis capillaris, Ptilotus polystachys, Rhagodia nutans and Stipa elegantissima.

Reserve 30132.

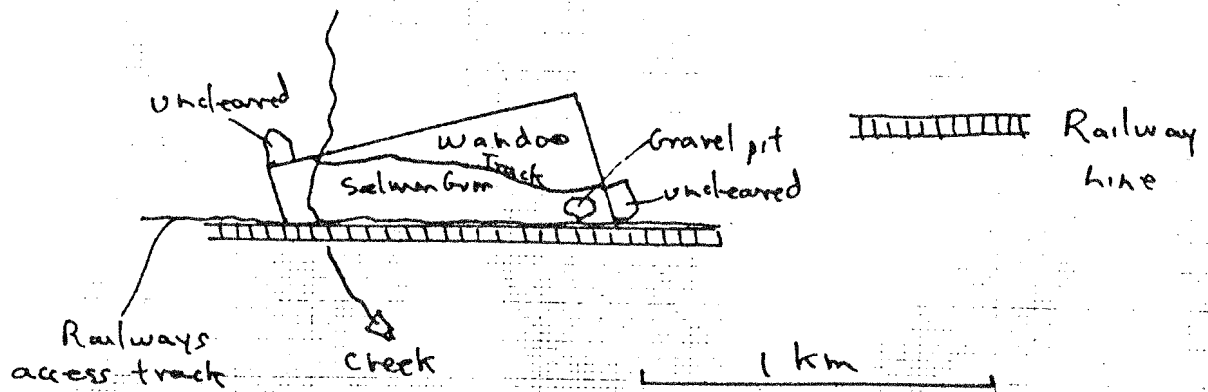




Plate 6. Salmon Gum woodland on Reserve 30132 showing open area.

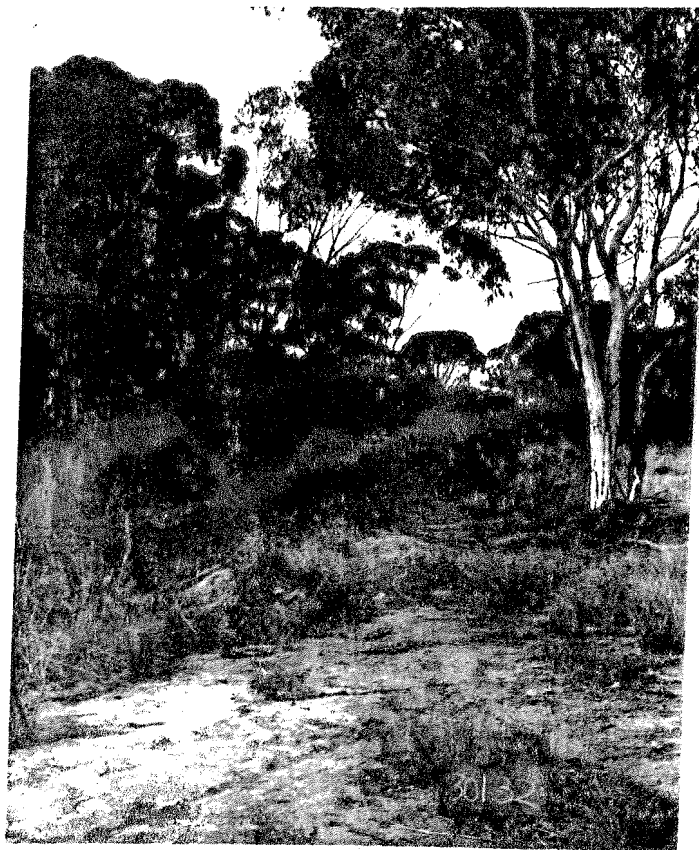


Plate 7. View along creek showing sedges and clumps of shrubs.

Reserve 30299

Located ca 22 km NE of Quairading Townsite and ca 16 km due N of Badjaling Siding. Shown on lithograph 3/80, Fl-2 and 1:50,000 Pantapin Sheet (2434-111).

Background

Originally gazetted for "Conservation of Flora" on 26 March 1970.

Physical characteristics

Reserve 30299 is rectangular, ca 2.3 km long (N-S axis) by ca 0.7 km broad (E-W axis). Total perimeter is ca 8 km and the area 170.8026 ha. The Reserve is ca 225 m above sea level with ca 1 m in topographic range.

Vegetation

Salt marsh with a narrow band of Eucalyptus? gracilis on the W boundary.

Plant species

Eleven plant species were recorded, of which 3 are exploited by the wildflower seed trade. A Hakea of uncertain affinities was collected.

Nest hollows

Occasional in woodland. No young trees present.

Weeds

None recorded.

Fire history

The nature of the vegetation suggests the Reserve may never be burnt.

Fauna

None recorded except footprints of a kangaroo.

Exotic fauna

None recorded.

Firebreaks and fences

Firebreaks absent, but not needed. Marginal fences are present.

Human usage

Small amount of rubbish. Timber has been removed. Sheep may stray into the Reserve.

Adjacent uncleared land

Extensive salt marsh is contiguous with the Reserve.

Remarks

Refer to Tammin Shire report (Muir 1978) for discussion of Reserve 28289 which is part of the same salt system and very similar to Reserve 30299.

Opinion and recommendations

The main value of the Reserve lies in soil conservation and prevention of salt encroachment. I recommend Reserve 30299 be retained in its present form and that it be vested in the Western Australian Wildlife Authority.

REFERENCE

MUIR, B.G. (1978). Some nature reserves of the Tammin Shire. Dept. Fish. Wildl. unpubl. Rept.

APPENDIX 7

Reserve 30299

Salt flats

Arthrocnemum halocnemoides shrubs, mature, 0.5 m tall, 30-70% cover.

Soil grey silts and clays. Seasonally flooded.

Slight mounds

Scattered shrubs of Arthrocnemum bidens, Bassia diacantha, Disphyma blackii, Enchylaena tomentosa, Eucalyptus loxophleba, E.? gracilis, Exocarpus sparteus, Hakea sp., Melaleuca uncinata, Templetonia sulcata.

Reserve 30299

