PART IV

BIRDS

by R. E. JOHNSTONE¹, C. P. S. de REBEIRA² and L. A. SMITH¹.

INTRODUCTION

This paper is based mainly on data gathered during biological survey work on four proposed or existing desert nature reserves in Western Australia. The work was carried out by Department of Fisheries and Wildlife, Western Australian Museum and C.S.I.R.O. Wildlife Research personnel.

The Lake Disappointment Area was visited from 26 November—1 December 1975, the Gibson Desert Nature Reserve from 23-27 March 1976, the Carnarvon Range Area from 20-24 November 1975 and from 28-31 March 1976, and Yeo Lake Area from 18-21 March 1976. Descriptions of areas and itineraries are given in McKenzie, and Burbidge and McKenzie (this publication).

We are grateful to the following people for allowing us to use their relevant and unpublished data: W. H. Butler (Lake Disappointment Area 11-17 August 1971), G. M. Storr (Gibson Desert 6-7 September 1966 and 25-26 July 1963) and J. R. Ford (Carnaryon Range Area 15-16 July 1975 and Yeo Lake Area 17-19 May 1966). Data collected in the Gibson Desert on 25 and 26 August 1973 by J. R. Ford and R. E. Johnstone is also included.

Abundance at the time of our surveys is indicated as scarce, uncommon, moderately common and common. Habitat notes are given whenever available. Durba Gorge and Killagurra Gorge refer to the steep sided rocky valleys in which Durba Springs and Killagurra Spring are situated.

LIST OF SPECIES

FAMILY CASUARIIDAE

Dromaius novaehollandiae (Latham) Emu

Lake Disappointment Area—Scarce in November 1975. A skeleton and a carcase at Durba Springs; droppings and tracks at Killagurra Gorge.

Gibson Desert Nature Reserve—Scarce in March 1976. One on a lush grassy flat 9 km south-east of Mt Everard: tracks at Young Range.

Carnaryon Range Area—Moderately common in March 1976 (largest group 10). Mostly on sandplain at south end of the range.

Yeo Lake Area—Common in March 1976 (nineteen counted on a 17 km transect from Stony Point to Yeo Homestead). Mostly on samphire flats. Male, with seven chicks about 75 cm high, on Yeo Lake in March 1976.

FAMILY ARDEIDAE

Ardea novaehollandiae Latham White-faced Heron

Yeo Lake Area-Five seen, all at small pools in lake. Two single birds in May and three in March 1976.

¹ Department of Vertebrates, Western Australian Museum, Francis

Street, Perth, W.A. 6000.
Division of Wildlife Research, CSIRO, Fyfe Street, Helena Valley, W.A. 6056.

FAMILY ANATIDAE

Anas gibberifrons Müller Grev Teal

Yeo Lake Area—one on small pool near Yeo Homestead in March 1976.

Chenonetta jubata (Latham) Wood Duck

Yeo Lake Area—Flock of about sixty in a claypan full of water near Yeo Hills (28°06'S, 125°29'E) in May 1966. Also one flying over Yeo Hills at night in May 1966.

FAMILY ACCIPITRIDAE

Hamirostra melanosternon (Gould) Black-breasted Kite Carnarvon Range Area—One over sandplain at south end of range in March 1976.

Accipiter cirrocephalus (Vieillot) Collared Sparrowhawk Carnarvon Range Area—Three seen in March 1976, all along a gully in the range.

Aquila morphnoides Gould Little Eagle

Lake Disappointment Area-One at Durba Gorge in November 1975.

Carnarvon Range Area-One at south end of range in November 1975.

Aquila audax (Latham) Wedge-tailed Eagle

Lake Disappointment Area—One at Durba Hills in November 1975.

Gibson Desert Nature Reserve—One over spinifex flat near Mt Everard in March 1976.

Carnarvon Range Area—One over sandplain, south end of range in March 1976. Another seen in July 1975.

Yeo Lake Area—Three in March 1976. Seen over samphire flats and breakaways.

FAMILY FALCONIDAE

Falco peregrinus Tunstall Peregrine Falcon

Carnaryon Range Area—Four circling bluff in November 1975, one pair of which were displaying. One in March 1976 and a pair in July 1975. (All at south end of range.)

Yeo Lake Area—One at Swamper Point (Yeo Hills) in May 1966.

Falco longipennis Swainson Little Falcon

Lake Disappointment Area—Two at Durba Gorge in November 1975.

Yeo Lake Area—One in a mallee near Point Sunday in March 1976.

Falco berigora Vigors and Horsfield Brown Falcon

Gibson Desert Nature Reserve-Several seen at Young Range in March 1976 and August 1973 and two in a wash area with lush herbage and bloodwoods 32 km

west of Everard Junction in August 1973. Nest with three eggs on top of an old White-browed Babbler's nest 6 m up in a Gidgee (*Acacia pruinocarpa*) near the Young Range in August 1973. The sitting bird was very pale.

Carnarvon Range Area—Single bird over Mulga (Acacia aneura) flat near the south-west corner of proposed reserve in March 1976 and another in November 1975.

Yeo Lake Area—Moderately common around breakaways and over samphire flats in March 1976.

Falco cenchroides Vigors and Horsfield Nankeen Kestrel Moderately common on all four Areas. Associated with bluffs and cliffs.

FAMILY MEGAPODIIDAE

Leipoa ocellata Gould Mallee Fowl

Yeo Lake Area—Old nest found in Mulga woodland.

FAMILY TURNICIDAE

Turnix velox (Gould) Little Quail

Lake Disappointment Area—Three single birds in open spinifex at Durba Gorge in November 1975.

Carnarvon Range Area—One on the track to Mt Methwin, west end of range, in November 1975.

FAMILY RALLIDAE

Gallinula ventralis Gould Black-tailed Native Hen

Yeo Lake Area—Six at pool near Yeo Homestead in May 1966.

FAMILY OTIDAE

Otis australis Gray Australian Bustard

Lake Disappointment Area—One in spinifex near the west side of Durba Hills in November 1975.

Gibson Desert Nature Reserve—One on spinifex flat with mulga and scattered eucalypts at Young Range in March 1976.

Carnarvon Range Area—Tracks at north end of range in November 1975.

Yeo Lake Area—A single bird, a pair and a group of three on open samphire flats in March 1976. Tracks at Yeo Hills in May 1966.

FAMILY CHARADRIIDAE

Vanellus tricolor (Vieillot) Banded Plover

Yeo Lake Area—Flock of forty and a single bird at claypans near Yeo Homestead in May 1966.

Charadrius melanops Vieillot Black-fronted Dotterel Yeo Lake Area—One at a pool near Yeo Homestead in May 1966.

Charadrius cinctus (Gould) Red-kneed Dotterel

Yeo Lake Area—Six at pool near Yeo Homestead in May 1966.

FAMILY COLUMBIDAE

Geopelia cuneata (Latham) Diamond Dove

Lake Disappointment Area—Common in November 1975. Flocks of up to forty drinking at pools at Durba and Killagurra Gorges.

Gibson Desert Nature Reserve—Only seen in August 1973. Two at Everard Junction and three 25 km west of Everard Junction. All among *Acacia* and *Grevillea* on open gravelly ground.

Carnarvon Range Area—Several pairs at northern end of range in November 1975.

Yeo Lake Area—a single bird at Stony Point in March 1976.

Phaps chalcoptera (Latham) Common Bronzewing

Carnarvon Range Area—Three drinking from pools at dusk at south end of range in March 1976 and one in July 1975.

Yeo Lake Area—About fifteen drinking from small pools at dusk.

Ocyphaps lophotes (Temminck) Crested Pigeon

Lake Disappointment Area—Ones and twos at Durba Gorge in November 1975.

Carnarvon Range Area—Moderately common. A flock of twelve in July 1975. Flocks of up to five and one of fifty in November 1975 and flocks up to twelve and one of twenty-five in March 1976.

Geophaps plumifera Gould Plumed Pigeon

Carnarvon Range Area—Two parties (total twelve) at Katjera Spring about 5 km east of Mt Methwin on 15 May 1975 (Reid, 1976).

FAMILY PSITTACIDAE

Platycercus zonarius (Shaw) Ringneck Parrot

Lake Disappointment Area—Uncommon. Ones, twos and threes in gullies with eucalyptus at Durba and Killagurra Gorges.

Carnarvon Range Area—Uncommon. Mostly pairs, in mulga and spinifex and gullies in the range with Eucalyptus microtheca and Callitris.

Platycercus varius (Clark) Mulga Parrot

Gibson Desert Nature Reserve—Uncommon to moderately common. Several pairs and a flock of six in open mulga at Young Range in March 1976.

Carnarvon Range Area—Uncommon. Two in River Gums in July 1975 and several sightings of twos and threes in thickets in gullies at north end of range in November 1975.

Yeo Lake Area—Moderately common. Mostly in mallee and Mulga woodlands, usually in twos and threes (one flock of eight).

Neophema bourkii (Gould) Bourke Parrot

Gibson Desert Nature Reserve—Two on stony ground with scattered mulga near Charlies Knob in March 1976.

Yeo Lake Area-Pair at Miller Soak in March 1976.

Melopsittacus undulatus (Shaw) Budgerygah

Lake Disappointment Area—Common to very common at Durba Hills. Large flocks roosting in mulgas on dunes and in eucalypts along the creek in Killagurra Gorge.

Gibson Desert Nature Reserve—Scarce in March 1976, moderately common in August 1973 and September 1966. Young found in hollows of bloodwoods and white gums in a wash area about 25 km west of Everard Junction in August 1973.

Carnarvon Range Area—Moderately common. Flocks of six to fifteen in July and November 1975.

Yeo Lake Area—Scarce. Twos and threes at Miller Soak and in good stands of mulga in March 1976.

Nymphicus hollandicus (Kerr) Cockatiel

Lake Disappointment Area—Two at Durba Gorge in November 1975.

Cacatua roseicapilla (Vieillot) Galah

Lake Disappointment Area—One on a dune near Durba Gorge in November 1975.

Carnaryon Range Area—Flocks of ten and thirteen at south end of range in March 1976 and two pairs at north end of range in November 1975.

Yeo Lake Area—Moderately common in March 1976 and May 1966. Pairs and flocks of three, mostly at water at Point Sunday, Miller Soak and Yeo Hills.

FAMILY CUCULIDAE

Cuculus pallidus (Latham) Pallid Cuckoo

Lake Disappointment Area—One at Durba Gorge in November 1975.

Gibson Desert Nature Reserve—Several sightings on stony flats with mulga, gidgee and bloodwoods at Browne and Young Ranges.

Carnaryon Range Area—Five in November 1975 (one calling at night) and one in July 1975.

Yeo Lake Area—Total of five in March 1976 and May 1966, all in well-wooded habitats. Pair of yellow-fronted Honeyeaters feeding a juvenile in a mallee near Point Sunday in March 1976.

Chrysococcyx osculans (Gould) Black-eared Cuckoo

Gibson Desert Nature Reserve—One near Charlies Knob in September 1966.

Carnarvon Range Area—Two in November 1975, both at south end of range.

Yeo Lake Area—Two single birds in March 1976 and several pairs at Yeo Hills in May 1966.

Chrysococcyx basalis (Horsfield) Horsfield Bronze Cuckoo

Gibson Desert Nature Reserve—One in July 1963, three in August 1973. In good stands of mulga at Young Range and mulga and *Eremophila* on stony flats near Everard Junction. Chestnut-tailed Thornbills feeding a fledgling near Everard Junction in August 1973.

Carnarvon Range Area—One in mulga at foot of range in March 1976.

Yeo Lake Area—One in March 1976.

FAMILY STRIGIDAE

Tyto alba (Scopoli) Barn Owl

Gibson Desert Nature Reserve—A large number o pellets found in a cave at the Young Range were probably deposited by a bird of this species.

Carnaryon Range Area—One chasing bats around pools at night at south end of range in March 1976.

Yeo Lake Area—Four, all in March 1976. Mostly around samphire flats at night, one at edge of breakaway at Point Sunday.

Ninox novaeseelandiae (Gmelin) Boobook Owl

Lake Disappointment Area—Calling at Durba Gorge in November 1975.

Carnarvon Range Area—Calling on two occasions in March 1976.

Yeo Lake Area—One at edge of samphire flat and one roosting in eucalypt on dune, both in March 1976.

FAMILY PODARGIDAE

Podargus strigoides (Latham) Tawny Frogmouth

Yeo Lake Area—Five, all in March 1976. Mostly around breakaways and samphire flats at night.

FAMILY AEGOTHELIDAE

Aegotheles cristatus (White) Crested Owlet-Nightjar

Lake Disappointment Area—One calling at Durba Gorge in November 1975.

Gibson Desert Nature Reserve—One calling at night at Young Range in March 1976.

Carnarvon Range Area—One flushed from spout of dead eucalypt on a creek bank in November 1975, one from hollow of *Eucalyptus microtheca* in the range in March 1976 and two on sandplain at night in low open-shrubland of *Hakea lorea* at south end of range.

Yeo Lake Area—Two in open Mulga at Stony Point and one at Miller Soak, all in March 1976.

FAMILY CAPRIMULGIDAE

Eurostopodus guttatus (Vigors and Horsfield) Spotted Nightjar

Gibson Desert Nature Reserve—Two at Young Range in March 1976.

Carnarvon Range Area— Two near pool at south end of range in November 1975, and one calling from mulga in March 1976.

Yeo Lake Area—Two in March 1976, one near a small pool on samphire flat and another at Miller Soak.

FAMILY ALCEDINIDAE

Halcvon pyrrhopygia Gould Red-rumped Kingfisher

Gibson Desert Nature Reserve—One in a wash area with white gums, bloodwoods and lush herbage 32 km west of Everard Junction in August 1973 and another at Charlies Knob, Young Range in September 1966.

Carnarvon Range Area—Two in November 1975 (one feeding on grasshoppers), and one in low open-shrubland on sandplain south of range in March 1976.

Yeo Lake Area—Four seen in wooded areas.

FAMILY HIRUNDINIDAE

Cheramoeca leucosterna (Gould) White-backed Swallow

Lake Disappointment Area—Flock of six over pools at head of Durba Gorge and two over the Gorge in November 1975. Also recorded at Durba Spring in August 1971.

Carnarvon Range Area—Two at west end of range in November 1975.

Yeo Lake Area—Several pairs at east end of proposed reserve in March 1976.

Hirundo ariel (Gould) Fairy Martin

Lake Disappointment Area—Three hawking over pool and some old nests under a rock ledge at Durba Gorge in November 1975.

Gibson Desert Nature Reserve—Several old nests under a rock overhang in the Young Range.

Carnarvon Range Area—Old nests below a rock ledge over a pool at south end of range.

Yeo Lake Area—Old nests below a rock ledge at Miller Soak and twenty old nests under a ledge at a break-away south-east of Stony Point.

FAMILY MOTACILLIDAE

Anthus novaeseelandiae (Gmelin) Richard's Pipit

Lake Disappointment Area—Recorded for Killagurra Gorge in August 1971 and two on the west side of Durba Hills in November 1975.

Gibson Desert Nature Reserve—Recorded in August 1973 and September 1966. On flats with scattered mulga, in wash areas and at the Young Range. Nest with three eggs under a small *Eremophila* at Charlies Knob in August 1973.

Carnarvon Range Area—Scarce. One on a burnt area south end of range in March 1976, two on sandplain south of range in july 1975 and two at north end of range in November 1975.

Yeo Lake Area—Common on samphire flats and in open mulga savannah in March 1976 and May 1966.

FAMILY CAMPEPHAGIDAE

Coracina maxima (Ruppell) Ground Cuckoo-shrike

Yeo Lake Area—Flock of seven near Yeo Homestead in March 1976.

Coracina novaehollandiae (Gmelin) Black-faced Cuckoo-shrike

Lake Disappointment Area—Several at Durba Gorge in November 1975.

Gibson Desert Nature Reserve—One near Everard Junction in March 1976.

Carnarvon Range Area—Moderately common in March 1976 in gullies with River Gums. One at the south end of the range in November 1975. Nest with brooding adult on horizontal fork of eucalypt in gully, in 1975.

Yeo Lake Area—Moderately common in well wooded habitats. Recorded at Point Sunday, Stony Point, Miller Soak and Yeo Hills.

Lalage sueurii (Vieillot) White-winged Triller

Lake Disappointment Area—Recorded at Killagurra Gorge in August 1971 and one along dunes at Durba Hills in November 1975.

Gibson Desert Nature Reserve—Uncommon. Ones and twos in March 1976, July 1963 and August 1973. Mostly on open flats with mulga.

Carnarvon Range Area—Uncommon. In flowering trees and shrubs in November 1975.

FAMILY PACHYCEPHALIDAE

Microeca leucophaea (Latham) Brown Flycatcher

Gibson Desert Nature Reserve—One in mulga at Young Range in March 1976.

Yeo Lake Area—One in mulga-mallee woodland in March 1976.

Petroica goodenovii (Vigors and Horsfield) Red-capped Robin

Moderately common at Gibson Desert Nature Reserve, Carnarvon Range Area and Yeo Lake Area. Mainly in well wooded areas of mulga and mallee, and in thickets along creeks.

Breeding at Carnarvon Range Area in November 1975. Nest 1.5 m up in a Kurara (Acacia tetragonophylla) bush with two feathered nestlings.

Petroica cucullata (Latham) Hooded Robin

Lake Disappointment Area—Recorded at Killagurra Gorge in August 1971.

Gibson Desert Nature Reserve—Moderately common. Mainly open mulga. Pair with two fledglings (just flying) 11 km west of Everard Junction in August 1973.

Carnarvon Range Area—One in sandplain area south of the range in July 1975 and another in November 1975.

Yeo Lake Area—Moderately common. Mainly in mulga thickets around base of hills and breakaways.

Pachycephala rufiventris (Latham) Rufous Whistler

Lake Disappointment Area—Calling at Killagurra Gorge and Durba Hills in November 1975.

Gibson Desert Nature Reserve—Common. Mostly in mulga thickets around ranges and along small creeks with eucalypts.

Carnarvon Range Area—Common. Mainly along gullies and creeks with eucalypts.

Yeo Lake Area—Common in all wooded habitats.

Colluricincla harmonica (Latham) Grey Shrike-thrush

Lake Disappointment Area—Seen and heard daily along the creeks at Durba and Killagurra Gorges in November 1975. Also recorded in August 1971.

- Gibson Desert Nature Reserve—Moderately common Two around the Young Range in March 1976 and five pairs at Charlies Knob in August 1973. Nest with three eggs in a mulga at Charlies Knob in August 1973.
- Carnarvon Range Area—Moderately common along gullies and creeks with thickets of *Eucalyptus*, *Acacia* and *Callitris*.
- Yeo Lake Area—Moderately common. Ones and twos in mallee near Stony Point and mulga at Yeo Hills.

FAMILY FALCUNCULIDAE

Oreoica gutturalis (Vigors and Horsfield) Crested Bell bird

- Gibson Desert Nature Reserve—Moderately common. Ones and twos mainly around the Browne and Young Ranges in mulga and eucalypts.
- Carnarvon Range Area—Uncommon. Two at south end of range in July 1975 and one calling along creek at same place in November 1975.
- Yeo Lake Area—Moderately common. Mainly areas of good mulga woodland and mallee woodland around Point Sunday, Stony Point and Yeo Hills.

Psophodes cristatus (Gould) Western Wedgebill

Gibson Desert Nature Reserve—Scarce in August 1973. Two in open mulga-spinifex 13 km north of Young Range and one heard singing 12 km west of Everard Junction.

FAMILY MONARCHIDAE

Rhipidura leucophrys (Latham) Willie Wagtail

- Lake Disappointment Area—Pair in Durba Gorge in November 1975.
- Gibson Desert Nature Reserve—Moderately common. Mainly around the Browne and Young Ranges and along creeks with thickets of mulga.
- Carnarvon Range Area—Moderately common. Ones and twos along creeks and gullies at the south end of the range.
- Yeo Lake Area—Moderately common. Mainly in mulga and mallee woodland.

FAMILY GRALLINIDAE

Grallina cyanoleuca (Latham) Magpie-lark

- Carnarvon Range Area—Single birds on the sandplain south of the range in March 1976 and July 1975.
- Yeo Lake Area—Recorded for Yeo Lake by Pianka and Pianka (1970, p.22).

FAMILY ORTHONYCHIDAE

Cinclosoma cinnamomeum Gould Cinnamon Quail-thrush

- Lake Disappointment Area—Calling along creek below Durba Gorge in November 1975.
- Gibson Desert Nature Reserve—Common. Mainly on the slopes of the breakaways vegetated with open mulga and low *Eremophila*. Pairs and groups of up to eight (including several juveniles) at the Young Range in August 1973.

- Carnarvon Range Area—One at edge of creek with mulga and spinifex in November 1975.
- Yeo Lake Area—Moderately common to common on the rock strewn slopes of breakaways with open mulga and low *Eremophila*, Cassia and Scaevola.

Pomatostomus temporalis (Vigors and Horsfield) Greycrowned Babbler

Carnaryon Range Area—Several old nests found in mulga trees in July 1975.

Pomatostomus superciliosus (Vigors and Horsfield) White-browed Babbler

- Lake Disappointment Area—Several at Durba Gorge in November 1975.
- Gibson Desert Nature Reserve—moderately common. Mainly in good stands of mulga and eucalypts along creeks and around the ranges. Many old nests in mulga and gidgee trees. Fresh nest in mulga in August 1973.
- Carnarvon Range Area—Moderately common in ranges, both in well-vegetated gullies and sparse vegetation on ridges.
- Yeo Lake Area—Moderately common. Mainly in good stands of eucalypts and mulga around Yeo Lake, Point Sunday and Yeo Hills.

FAMILY ACANTHIZIDAE

Aphelocephala leucopsis (Gould) Southern Whiteface

- Gibson Desert Nature Reserve—Uncommon. Two pairs in gidgee and *Eremophila* at the Young Range in March 1976 and one on an open stony flat with mulga 24 km west of Everard Junction in July 1963.
- Yeo Lake Area—Common in well-wooded areas around breakaways.

Aphelocephala nigricincta (North) Banded Whiteface

Gibson Desert Nature Reserve—Moderately common. Mainly in open stony areas with scattered mulga, *Hakea*, *Grevillea*, *Eremophila* and spinifex. A nest with young near the Young Range in March 1976.

Gerygone fusca (Gould) Western Flyeater

Carnarvon Range Area—Two in eucalypts along creek at south end of the range in November 1975.

Smicrornis brevirostris (Gould) Weebill

- Carnaryon Range Area—Moderately common in eucalypts along creeks and gullies at the range.
- Yeo Lake Area—Moderately common in mallee woodlands.

Acanthiza pusilla (Shaw) Brown Thornbill

- Carnarvon Range Area—Several at the south end of the range in March 1976.
- Yeo Lake Area—Uncommon to moderately common. Mainly mallee and mulga woodland.

Acanthiza robustirostris Milligan Slate-backed Thornbill Lake Disappointment Area—Recorded at Killagurra Gorge in August 1971.

- Gibson Desert Nature Reserve—Moderately common. Mainly in low bushy mulgas around the Young Range. Nest with two eggs in a mulga on top of the Young Range in August 1973.
- Carnarvon Range Area—Several in March 1976. All in *Acacia* sp. on the range.
- Yeo Lake Area—Common around Yeo Hills in tall mulga on stony plateau, but scarce in other areas.
- Acanthiza uropygialis Gould Chestnut-rumped Thornbill
- Lake Disappointment Area—Recorded at Killagurra Gorge in August 1971.
- Gibson Desert Nature Reserve—Common. Pairs and small flocks of up to fifteen on flats with low open mulga around the Young Range in March 1976 and August 1973. Pair with fledglings in mulga on plateau in August 1973.
- Carnarvon Range Area—Moderately common. Mainly mulga thickets around the base of the range.
- Yeo Lake Area—Moderately common to common. Mainly in mulga-mallee woodland at breakaways and on dunes. Breeding in May 1966.

Pyrrholaemus brunneus Gould Redthroat

- Gibson Desert Nature Reserve—Moderately common in thickets of *Acacia* sp. and bloodwoods around the Young Range.
- Yeo Lake Area—Uncommon. Three in May 1966, two at Stony Point in low bushes and one at Yeo Hills.
- Calamanthus fuliginosus (Vigors and Horsfield) Field Wren
- Yeo Lake Area—One calling on extensive samphire-saltbush flat near Turkey Hill in May 1966.

FAMILY MALURIDAE

Amytornis striatus (Gould) Striated Grass-wren

- Gibson Desert Nature Reserve—Uncommon in March 1976. One on flats near the Browne Range, and two pairs flushed from dense spinifex on open sandy flat 4 km north of the Young Range. One of the latter birds was sitting in a nest constructed of soft grass and lined with spinifex seeds, spider web and spider egg cases. The nest measured 130 mm long and 90 mm wide with an opening near the top.
- Malurus lamberti Vigors and Horsfield Variegated Wren
- Lake Disappointment Area—Recorded at Killagurra Gorge in August 1971.
- Gibson Desert Nature Reserve—Moderately common. Mainly mulga thickets along creeks and wash areas with dense shrubbery.
- Yeo Lake Area—One party of six, including a male in nuptial plumage, in open *Acacia* near Point Sunday in May 1966.
- Malurus leucopterus Dumont White-winged Wren
- Lake Disappointment Area—Recorded at Durba Springs in August 1971.

- Gibson Desert Nature Reserve—Uncommon. Mostly in spinifex on gravelly or sandy flats. A female-plumaged bird was flushed from a recently-used nest in a low shrub near Everard Junction in August 1973.
- Yeo Lake Area—Moderately common on samphire flats with saltbush and Atriplex.
- Stipiturus ruficeps Campbell Rufous-crowned Emu-wren
- Gibson Desert Nature Reserve—Pair with two fledglings on sandplain near Everard Junction in August 1973.

FAMILY SYLVIIDAE

- Cincloramphus mathewsi Iredale Rufous Songlark
- Gibson Desert Nature Reserve—One in a wash area with *Eucalypts* and *Acacia* 24 km west of Everard Junction in August 1973.
- Cincloramphus cruralis (Vigors and Horsfield) Brown Songlark
- Gibson Desert Nature Reserve—three single birds in open mulga and spinifex near Everard Junction in March 1976.
- Carnarvon Range Area—One giving display flight and calling at north-west end of the range in November 1975.
- Yeo Lake Area—One on an open flat with scattered mulga in March 1976 and another near Yeo Homestead in May 1966.

FAMILY NEOSITTIDAE

- Neositta chrysoptera (Latham) Australian Sittella
- Gibson Desert Nature Reserve—Moderately common in flocks of two to fifteen in mulga and eucalypts at Young Range.
- Carnarvon Range Area—Flock of eight in mulga at south end of range in July 1975.

FAMILY CLIMACTERIDAE

Climacteris affinis Blyth White-browed Tree-creeper

- Gibson Desert Nature Reserve—Six, including two juveniles in open mulga 56 km north of the Young Range in August 1973.
- Climacteris rufa Gould Rufous Tree-creeper
- Yeo Lake Area—A male collected in mixed mallee and marble gums (E. gongylocarpa) near Yeo Hills in May. 1966.

FAMILY DICAEIDAE

- Dicaeum hirundinaceum (Shaw) Mistletoe-bird
- Lake Disappointment Area—Recorded at Durba Springs in August 1971 and ones and twos in eucalypts along Durba Gorge in November 1975.
- Gibson Desert Nature Reserve—One in mixed Acacia and eucalypts along a creek in March 1976.
- Carnarvon Range Area—Ones, twos and threes, mainly in eucalypts at south end of the range.
- Yeo Lake Area—One near Point Sunday and another at Yeo Hills both in May 1966.

FAMILY PARDALOTIDAE

Pardalotus rubricatus Gould Red-browed Pardalote

Gibson Desert Nature Reserve—Single birds in July 1963 and September 1966 in a wash area with bloodwoods 24 km west of Everard Junction.

Pardalotus striatus substriatus Mathews Red-tipped Pardalote

Lake Disappointment Area—Recorded at Durba Springs in August 1971.

Carnarvon Range Area—Pair in eucalypts at south end of range in March 1976.

Yeo Lake Area—Moderately common to common. At stony Point and Yeo Hills in May 1966, mostly in mallee but also in mulga-mallee woodland.

FAMILY MELIPHAGIDAE

Lichmera indistincta (Vigors and Horsfield) Brown Honeyeater

Carnarvon Range Area—One in March 1976 and one in July 1975, both in a gully with eucalypts, *Grevillea* and *Acacia*.

Certhionyx niger (Gould) Black Honeyeater

Lake Disappointment Area—Recorded at Durba Gorge in August 1971 and several sightings at Durba Gorge and inter-dune adjacent to Durba Hills in November 1975.

Certhionyx variegatus Lesson Pied Honeyeater

Lake Disappointment Area—Recorded at Durba and Killagurra Gorges in August 1971 and one in mulga and one in interdune thicket near Durba Gorge in November 1975.

Gibson Desert Nature Reserve—Single birds in July 1963, August 1973 and September 1966.

Carnarvon Range Area—Three males at the south end of the range in November 1975 one in vegetation along a creek and two in *Hakea lorea*.

Yeo Lake Area—Two pairs in mulga woodland in May 1966, the males calling frequently.

Meliphaga virescens (Vieillot) Singing Honeyeater

Lake Disappointment Area—Uncommon. At Durba Hills and at Durba and Killagurra Gorges.

Gibson Desert Nature Reserve—Moderately common, in March 1976, August 1973 and September 1966. Mostly in mulga and eucalypts along creeks. Also on well-vegetated dunes. Breeding in September 1966.

Carnarvon Range Area—Moderately common in March 1976, July 1975 and November 1975. Mostly in areas of *Eucalyptus microtheca* and *Grevillea wickhami* at south end of range.

Yeo Lake Area—Uncommon. One in mulga-mallee in March 1976 and several at Yeo Hills in May 1966.

Meliphaga keartlandi (North) Grey-headed Honeyeater

Lake Disappointment Area—Recorded at Durba and Killagurra Gorges in August 1971 and two at Durba Gorge in November 1975.

Gibson Desert Nature Reserve—Three noted in March 1976. Two in stunted eucalypts near Everard Junction and one in open mulga near the Young Range. Two on spinifex sandplain with low shrubs in August 1973.

Carnarvon Range Area—Moderately common in March 1976, July 1975 and November 1975. Mainly in river gums and Minnerichie (*Acacia* spp.) flats and in mallee and *Grevillea wickhami* on the range.

Meliphaga plumula (Gould) Yellow-fronted Honeyeater

Yeo Lake Area—Moderately common to common. Ones, twos and flocks of up to fifteen. Mostly in sandplain areas with *Eucalyptus youngiana*, mallee and marble gums but occasionally in mulga. Pair feeding a juvenile Pallid Cuckoo in a mallee near Point Sunday in March 1976.

Meliphaga penicillata Gould White-plumed Honeyeater

Lake Disappointment Area—Moderately common. Pairs and small groups in eucalypts at Durba and Killagurra Gorges.

Phylidonyris albifrons (Gould) White-fronted Honeyeater

Lake Disappointment Area—Recorded at Killagurra Gorge in August 1971.

Gibson Desert Nature Reserve—One in mulga near Everard Junction in August 1973.

Carnarvon Range Area—several in eucalypts at the south end of the range in March 1976.

Yeo Lake Area—Uncommon in March 1976, common in May 1966. Small groups in stunted mallee on dunes and at Miller Soak in March 1976. In May 1966 many birds were attracted to flowering *Eremophila* at Point Sunday, Stony Point and Yeo Hills. Nest with two eggs in low bush in May 1966.

Manorina flavigula (Gould) Yellow-throated Miner

Lake Disappointment Area—Moderately common at Durba and Killagurra Gorges.

Gibson Desert Nature Reserve—Several calling at the Young Range in March 1976.

Carnarvon Range Area—Moderately common. Small groups of up to eight in eucalypts at base of range.

Yeo Lake Area—Common. Mainly small flocks of up to ten. Mostly in mallee woodland on sandplains, mallee-mulga woodland and in marble gums.

Acanthagenys rufogularis (Gould) Spiny-cheeked Honey-eater

Lake Disappointment Area—Recorded at Killagurra Gorge in August 1971.

Gibson Desert Nature Reserve—Uncommon in March 1976, August 1973 and September 1966. Ones and twos in open mulga on stony flats and in mulga woodland around ranges.

Carnarvon Range Area—Uncommon in March 1976, July 1975 and November 1975. Ones, twos and threes in open vegetation on the range.

Yeo Lake Area—Uncommon to moderately common in March 1976 and May 1966. Mainly in mulgamallee woodland.

FAMILY EPTHIANURIDAE

Epthianura albifrons (Jardine and Selby) White-fronted Chat

Yeo Lake Area—Several pairs near Yeo Homestead in May 1966.

Epthianura aurifrons (Gould) Orange Chat

Yeo Lake Area—Common in May 1966. Flock of twelve on extensive samphire flat near Turkey Hill, two near Yeo Homestead and a flock of twelve on saltbush-samphire flat around claypan full of water at Yeo Hills.

Epthianura tricolor (Gould) Crimson Chat

Lake Disappointment Area—Uncommon in August 1971 and November 1975. Several pairs at Durba and Killagurra Gorges. One pair carrying food in November 1975.

Gibson Desert Nature Reserve—Common, Pairs and small flocks of up to seven. Mainly on flats and dunes with Acacia, Grevillea and Hakea. Nest with two young being fed by a male in a wash area 24 km west of Everard Junction in August 1973.

Carnarvon Range Area—Uncommon in November 1975.
Pairs on open spinifex flats and on sandplain at south end of range.

Yeo Lake Area—Moderately common in May 1966. Pairs and small flocks on samphire-saltbush flats.

FAMILY PLOCEIDAE

Poephila guttata (Vieillot) Zebra Finch

Moderately common at Lake Disappointment Area; common at Gibson Desert Nature Reserve, Carnarvon Range Area and Yeo Lake area.

Breeding at Gibson Desert Nature Reserve in March 1976 and August 1973.

FAMILY ARTAMIDAE

Artamus personatus (Gould) Masked Wood-swallow

Gibson Desert Nature Reserve—Common in August 1973; less common in March 1976 and July 1963. Mostly areas with flowering trees and shrubs. Several nests with eggs in August 1973.

Carnarvon Range Area—Pairs and small flocks at south end of range in November 1975.

Yeo Lake Area—Common, in twos and threes in well-wooded areas. One flock of a hundred over a samphire flat.

Artamus cinereus (Vieillot) Black-faced Wood-swallow

Common at Gibson Desert Nature Reserve, Carnarvon Range Area and Yeo Lake area. Ones, twos, threes and small flocks of up to eight in all wooded habitats.

Artamus minor (Vieillot) Little Wood-swallow

Lake Disappointment Area—Several nesting in cliffs at Durba and Killagurra Gorges in November 1975.

Gibson Desert Nature Reserve—Scarce in March 1976. One at Mt Everard and three around the Young Range.

Carnarvon Range Area—Two birds building nests at south end of range in November 1975.

Yeo Lake Area—Flock of eight along breakaways at Yeo Hills in May 1966.

FAMILY CRACTICIDAE

Cracticus torquatus (Latham) Grey Butcherbird

Carnarvon Range Area—Uncommon in March 1976, July 1975 and November 1975. Mainly in thickets around base of range.

Yeo Lake Area-Moderately common. In woodlands.

Cracticus nigrogularis (Gould) Pied Butcherbird

Lake Disappointment Area—Pair with young at Durba Gorge in November 1975. Adult was feeding an *Amphibolurus* to a nestling. The lizard was wedged into the splintered end of a broken branch.

Gibson Desert Nature Reserve—One at Young Range in March 1976.

Carnarvon Range Area—Moderately common on the range and in eucalypts along creeks.

Yeo Lake Area—Moderately common in well-wooded areas, particularly mulga-mallee at hills and break-aways.

Cracticus tibicen (Latham) Magpie

Carnarvon Range Area—One at west side of range in November 1975.

Yeo Lake Area—One near Turkey Hill in March 1976.

Strepera versicolor (Latham) Grey Currawong

Yeo Lake Area—Two in mulga-mallee woodland near Stony Point in March 1976.

FAMILY PARADISAEIDAE

Ptilonorhynchus maculatus (Gould) Spotted Bowerbird

Carnarvon Range Area—One pair along a creek with *Ficus, Eucalyptus, Acacia* and *Callitris* at south end of range in March 1976 and a pair at same place in November 1975.

FAMILY CORVIDAE

Corvus orru Bonaparte Australian Crow

Lake Disappointment Area—A crow, probably of this species, seen at Durba and Killagurra Gorges in November 1975.

Corvus bennetti North Little Crow

Gibson Desert Nature Reserve—Several flying northwards over camp in March 1976.

Yeo Lake Area—Eleven near Stony Point in March 1976 and two in May 1966.

DISCUSSION

Forty-six species were recorded at Lake Disappointment Area, fifty-eight at Gibson Desert Nature Reserve, sixty-six at Carnarvon Range Area and seventy-five at Yeo Lake Area.

Most of the resident species, such as the Bourke Parrot, Rufous Whistler, Banded Whiteface, Slate-backed Thornbill, Chestnut-rumped Thornbill, Redthroat and Singing Honeyeater, were recorded from all the proposed and existing reserves. The majority of birds in the Little Sandy, Gibson and Great Victoria Deserts are highly nomadic and several visits during different seasons are required to establish their status. This group would include the Red-tipped Pardalote, Black Honeyeater, Pied Honeyeater, White-fronted Honeyeater, Orange Chat, Crimson Chat and Masked Wood-swallow.

The high number of species from Yeo Lake Area is partly because Ford's May 1966 visit was immediately after rains, which added vagrants such as the Wood

Duck, Black-tailed Native Hen, Banded Plover and Red-kneed Dotterel, and partly because of the greater habitat diversity of this area, with dunes, mulga-mallee, Marble Gums, samphire-Atriplex flats and breakaways. The mallee-Marble Gum woodland is not found on the other three reserves. Ford (1970) indicates that this belt north of the Nullarbor Plain is an important avenue between Eyre Peninsula and the South-West for several species such as the Red-tipped Pardalote and the Grey Currawong.

REFERENCES

Ford, J. R. (1970). "Distribution and Taxonomy of Southern Birds in the Great Victoria Desert". Emu 70, 27-36.

Pianka, H. D. and Pianka, E. R. (1970). "Bird Censuses from Desert Localities in Western Australia". Emu 70, 17-22.
Reid, D. (1976). "Red Plumed Pigeon in the Carnarvon Range". W.A. Nat. 13, 174.

THE WILDLIFE OF SOME EXISTING AND PROPOSED NATURE RESERVES IN THE GIBSON, LITTLE SANDY AND GREAT VICTORIA DESERTS,

Western Australia

EDITED BY

N. L. McKenzie

and

A. A. Burbidge

WESTERN AUSTRALIAN WILDLIFE RESEARCH CENTRE

1979

DEPARTMENT OF FISHERIES AND WILDLIFE PERTH, WESTERN AUSTRALIA

Wildl. Res. Bull. West. Aust. 1979, No. 8, 1-36.

CONTENTS

											Page
	ABSTRACT		3492	9444	546	344	3744	14444	1966		5
PART I	BACKGROUND	N. L.	MaVanz	ia							
raki i			MCKCIIZ	IC							_
	Background			••••	••••						- 5
	References	. '	••••	****	••••		••••	••••			5
PART II	ENVIRONMENT	Г А. А.	Burbidge	and 1	N. L. 1	McKen	zie				
	Introduction										7
	Carnarvon R	ange Area	ı								7
	Lake Disappe									****	8
	Yeo Lake Ar							.,,,			10
	Gibson Deser		•			••••		••••			11
	Acknowledge		ICSCI VC		****					****	13
	_			****	••••	****			****	••••	
	References	• ••••	••••					****	****		13
PART-III	MAMMALS N	. L. McK	anzia V	37 TZ.	Vous	acon	A A	Durhid		A 1-	
I AIXI-III	Chapman	. L. MICIS	cuzic, i	v. IX.	Tour	igson, A	л. д.	. Ֆաւ տա	ge, am	u zy	
	Introduction										16
	Species List										16
	Discussion		••••		****						18
	Acknowledge	ements									20
	References		****			****			****		20
PART IV	BIRDS R. E. J	ohnstone,	C. P. S	. de F	Rebeira	and I	A. S	mith			
	Introduction		·								22
	Species List	••••									22
	Discussion										30
	References							****			30
								••••	••••	••••	20
PART V	AMPHIBIANS A	AND RE	PTILES	L. A	. Smit	th and	R. E. J	ohnsto	ne		
	Introduction								••••		31
	Species List							****		,,,,	31
	Discussion		••••								33
	References		••••				****				33
							****	****	****	••••	55
PART VI	CONCLUSIONS	A. A. E	Burbidge	and N	J. L. N	McKenz	zie				
	Conclusions	••••			••••						34
	References										

TA	BI	ES

3. Lake Disappointment Area, vegetation 4. Yeo Lake Area, vegetation 5. Gibson Desert Nature Reserve, vegetation	Pa
3. Lake Disappointment Area, vegetation 4. Yeo Lake Area, vegetation 5. Gibson Desert Nature Reserve, vegetation	
4. Yeo Lake Area, vegetation	••
5. Gibson Desert Nature Reserve, vegetation	
PART III MAMMALS 1. Breeding information—rodents and bats	
1. Breeding information—rodents and bats 2. Species known from the proposed nature reserves (1975–1976) PART IV CONCLUSIONS 1. Gibson Desert plant formations 2. Dasyurids and rodents in reserves 3. Amphibolurus and Ctenotus species in reserves 3. Amphibolurus and Ctenotus species in reserves PART I BACKGROUND 1. Existing and proposed nature reserves in Western Australian deserts PART II ENVIRONMENT 1. Tall open-shrublands on top of the Carnarvon Range 2. Gully in the Carnarvon Range 3. Low woodlands of Acacia spp. south of the Carnarvon Range 4. Sandplains with spinifex hummock grassland, Carnarvon Range Ar 5. Low open-woodland of mallee on sandplain, Carnarvon Range Ar 6. Scree slopes, Durba Hills 7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain between pans of Yeo Lake 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	
1. Breeding information—rodents and bats 2. Species known from the proposed nature reserves (1975–1976) PART IV CONCLUSIONS 1. Gibson Desert plant formations 2. Dasyurids and rodents in reserves 3. Amphibolurus and Ctenotus species in reserves 3. Amphibolurus and Ctenotus species in reserves PART I BACKGROUND 1. Existing and proposed nature reserves in Western Australian deserts PART II ENVIRONMENT 1. Tall open-shrublands on top of the Carnarvon Range 2. Gully in the Carnarvon Range 3. Low woodlands of Acacia spp. south of the Carnarvon Range 4. Sandplains with spinifex hummock grassland, Carnarvon Range Ar 5. Low open-woodland of mallee on sandplain, Carnarvon Range Ar 6. Scree slopes, Durba Hills 7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain between pans of Yeo Lake 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	
2. Species known from the proposed nature reserves (1975–1976) PART IV CONCLUSIONS 1. Gibson Desert plant formations 2. Dasyurids and rodents in reserves 3. Amphibolurus and Ctenotus species in reserves FIGURES PART I BACKGROUND 1. Existing and proposed nature reserves in Western Australian deserts PART II ENVIRONMENT 1. Tall open-shrublands on top of the Carnarvon Range 2. Gully in the Carnarvon Range 3. Low woodlands of Acacia spp. south of the Carnarvon Range 4. Sandplains with spinifex hummock grassland, Carnarvon Range Ar 5. Low open-woodland of mallee on sandplain, Carnarvon Range Ar 6. Scree slopes, Durba Hills 7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	
PART IV CONCLUSIONS 1. Gibson Desert plant formations 2. Dasyurids and rodents in reserves 3. Amphibolurus and Ctenotus species in reserves FIGURES PART I BACKGROUND 1. Existing and proposed nature reserves in Western Australian deserts PART II ENVIRONMENT 1. Tall open-shrublands on top of the Carnarvon Range 2. Gully in the Carnarvon Range 3. Low woodlands of Acacia spp. south of the Carnarvon Range 4. Sandplains with spinifex hummock grassland, Carnarvon Range Ar 5. Low open-woodland of mallee on sandplain, Carnarvon Range Ar 6. Scree slopes, Durba Hills 7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	
I. Gibson Desert plant formations 2. Dasyurids and rodents in reserves 3. Amphibolurus and Ctenotus species in reserves 3. Amphibolurus and Ctenotus species in reserves FIGURES PART II BACKGROUND 1. Existing and proposed nature reserves in Western Australian deserts PART II ENVIRONMENT 1. Tall open-shrublands on top of the Carnarvon Range 2. Gully in the Carnarvon Range 3. Low woodlands of Acacia spp. south of the Carnarvon Range 4. Sandplains with spinifex hummock grassland, Carnarvon Range Ar 5. Low open-woodland of mallee on sandplain, Carnarvon Range Ar 6. Scree slopes, Durba Hills 7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	
2. Dasyurids and rodents in reserves 3. Amphibolurus and Ctenotus species in reserves FIGURES PART I BACKGROUND 1. Existing and proposed nature reserves in Western Australian deserts PART II ENVIRONMENT 1. Tall open-shrublands on top of the Carnarvon Range	
2. Dasyurids and rodents in reserves 3. Amphibolurus and Ctenotus species in reserves FIGURES PART I BACKGROUND 1. Existing and proposed nature reserves in Western Australian deserts PART II ENVIRONMENT 1. Tall open-shrublands on top of the Carnarvon Range	**
FIGURES PART I BACKGROUND 1. Existing and proposed nature reserves in Western Australian deserts PART II ENVIRONMENT 1. Tall open-shrublands on top of the Carnarvon Range	
PART I BACKGROUND 1. Existing and proposed nature reserves in Western Australian deserts PART II ENVIRONMENT 1. Tall open-shrublands on top of the Carnarvon Range	
PART I BACKGROUND 1. Existing and proposed nature reserves in Western Australian deserts PART II ENVIRONMENT 1. Tall open-shrublands on top of the Carnarvon Range 2. Gully in the Carnarvon Range 4. Sandplains with spinifex hummock grassland, Carnarvon Range Ar 5. Low open-woodland of mallee on sandplain, Carnarvon Range Ar 6. Scree slopes, Durba Hills 7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	
PART I BACKGROUND 1. Existing and proposed nature reserves in Western Australian deserts PART II ENVIRONMENT 1. Tall open-shrublands on top of the Carnarvon Range	-1
PART I BACKGROUND 1. Existing and proposed nature reserves in Western Australian deserts PART II ENVIRONMENT 1. Tall open-shrublands on top of the Carnarvon Range	
PART II 1. Tall open-shrublands on top of the Carnarvon Range 2. Gully in the Carnarvon Range 3. Low woodlands of Acacia spp. south of the Carnarvon Range 4. Sandplains with spinifex hummock grassland, Carnarvon Range Ar 5. Low open-woodland of mallee on sandplain, Carnarvon Range Ar 6. Scree slopes, Durba Hills 7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	
1. Tall open-shrublands on top of the Carnarvon Range	
1. Tall open-shrublands on top of the Carnarvon Range	
2. Gully in the Carnarvon Range 3. Low woodlands of Acacia spp. south of the Carnarvon Range 4. Sandplains with spinifex hummock grassland, Carnarvon Range Ar 5. Low open-woodland of mallee on sandplain, Carnarvon Range Ar 6. Scree slopes, Durba Hills 7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	
3. Low woodlands of Acacia spp. south of the Carnarvon Range 4. Sandplains with spinifex hummock grassland, Carnarvon Range Ar 5. Low open-woodland of mallee on sandplain, Carnarvon Range Ar 6. Scree slopes, Durba Hills 7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	.,
4. Sandplains with spinifex hummock grassland, Carnarvon Range Ar 5. Low open-woodland of mallee on sandplain, Carnarvon Range Ar 6. Scree slopes, Durba Hills 7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	
5. Low open-woodland of mallee on sandplain, Carnarvon Range Ar 6. Scree slopes, Durba Hills 7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	••
6. Scree slopes, Durba Hills 7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	
7. Valley in the Durba Hills 8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	a
8. Woodland near Durba Springs 9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	H
9. Low open-shrublands on sandplains, Lake Disappointment Area 10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	
10. Low open-woodlands and low shrublands, Yeo Lake Area 11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point	**
11. Low shrublands of Bluebush and Saltbush, Yeo Lake Area 12. Mulga at Stony Point	#
12. Mulga at Stony Point 13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	32
13. Pan and gypsum dune vegetation, Yeo Lake Area 14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	#
14. Low open-woodland on sandplain between pans of Yeo Lake 15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	5
15. Low open-woodland on sandplain, Yeo Lake Area 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	ee
 16. Gravelly sandplain at Everard Junction 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve 	77
 17. Mulga low open-woodland, Young Range 18. Spinifex open-hummock grassland near Young Range 19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve 	11
18. Spinifex open-hummock grassland near Young Range19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	44
19. Tall shrubland of Acacia spp., Gibson Desert Nature Reserve	-•
	••
20. Campsite, Gibson Desert Nature Reserve	••
and Campately Orosoft Desert Patente Reserve	••
PART III MAMMALS	
1. Taphozous flaviventris, Durba Hills	,,
COLOUR PLATES—CENTRE PAGE	
1. Carnarvon Range vegetation. 4. Low open-woodland, Yeo Lake Are	
2. Sand dune near Carnaryon Range 5. Durba Springs	,
3. Durba Hills 6. Ride's Ningaui	
5. Datoa timo 0. Nuc 8 Migaui	