

DUPLICATE

DEPARTMENT OF FISHERIES AND WILDLIFE

PERTH

WESTERN AUSTRALIA

1973
ANNUAL REPORT

FAUNA CONSERVATION BRANCH

AND

WESTERN AUSTRALIAN WILD LIFE AUTHORITY



DEPARTMENT OF FISHERIES AND WILDLIFE

108 Adelaide Terrace
Perth, W.A.

The Honourable P.V. Jones
Minister for Fisheries and Wildlife

Sir,

In accordance with the requirements of Sub-section (5) of Section 7 of the Fauna Conservation Act, I have pleasure in submitting to you my report on the proceedings and work of the Western Australian Wild Life Authority for the period ending June 30, 1973, together with comments relating to the administration of this Act.

B.K. Bowen

(B.K. Bowen)
CHAIRMAN

Western Australian Wild Life Authority

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DEPARTMENT OF FISHERIES AND WILDLIFE
WESTERN AUSTRALIAN WILD LIFE AUTHORITY

I. MEETINGS AND MEMBERSHIP

A. THE AUTHORITY

Meetings

During 1972/73 the Authority met on six occasions as in the previous year.

Membership

<u>Ex Officio Members</u>	<u>No. of Meetings</u>	
	<u>1972/73</u>	<u>1971/72</u>
Director of Fisheries and Fauna, Mr B.K. Bowen Chairman	5	5
Chief Warden of Fauna - Mr H.B. Shugg Deputy Chairman	4	4
Assistant Administrative Officer - Mr A.J. Mearns Chief Executive Officer	4	5
Conservator of Forests, Mr D.W.R. Stewart, the Conservator of Forests retired on 14th July, 1972 and was replaced by Mr B.J. Beggs Deputies - Mr W.H. Eastman Dr E.R. Hopkins	4	6
Chief Vermin Control Officer - Mr A.R. Tomlinson Deputy - Mr M.D. Gooding	6	6
<u>Appointed Members</u>		
Botanist - Mr R.D. Royce - Government Herbarium	4	5
Zoologists - Professor A.R. Main - University of W.A.	6	4
- Dr D.L. Serventy	4	5
Dr W.D.L. Ride - Director, W.A. Museum	5	5
Deputy - Mr J.L. Bannister		
Mr N.A. Beeck - Farmer	6	5
Mr H.G. Hall - Farmer	5	5
Mr A.H. Robinson - Farmer	5	6

Mr H.B. Shugg acted as Chairman on one occasion, Mr A.J. Mearns acted as Deputy Chairman on two occasions, Mr D.W. Arnold acted as Chief Executive Officer on three occasions and Mr P.W. Smith acted as Chief Executive Officer on one occasion.

B. STANDING COMMITTEES

The Authority appointed from among its members, Standing Committees on which a number of co-opted members from departments and authorities involved, kindly agreed to serve.

1. The Reserves Committee

This Committee met six times in 1972/73. In the previous year five meetings were held.

Membership

	<u>No. of Meetings</u>	
	<u>attended</u>	
	<u>1972/73</u>	<u>1971/72</u>
Mr B.K. Bowen - Chairman	5	5
Mr H.B. Shugg - Acting Chairman	1	-
- Deputy Chairman	3	4
Mr A.J. Mearns - Acting Deputy Chairman	2	1
- Chief Executive Officer	3	3
Mr D.W. Arnold - Acting Chief Executive Officer	3	2
Mr R.H. Robinson - Authority Member	1	3
Mr R.D. Royce - Authority Member	6	4
Mr N. Beeck - Authority Member	6	4
Professor A.R. Main - Authority Member	-	1
Mr D.W.R. Stewart - Conservator of Forests	-	2
Mr B.J. Beggs - Conservator of Forests (appointed 15.7.72)	1	2
Mr W.H. Eastman - Deputy for Conservator of Forests	3	1
Dr E.R. Hopkins - Deputy for Conservator of Forests	1	-
Mr J. Bannister - Deputy Director - W.A. Museum	5	4
Dr A.A. Burbidge - Reserve Management Branch	6	5
Mr N. McKenzie - Reserve Acquisition Branch	4	3
Mr R.I.T. Prince - Fauna Research	-	2

2. Game Committee

This Committee met twice during 1972/73. In the previous year five meetings were held.

Membership

	<u>No. of Meetings</u>	
	<u>attended</u>	
	<u>1972/73</u>	<u>1971/72</u>
Mr B.K. Bowen - Chairman	2	4
Mr H.B. Shugg - Acting Chairman	-	1
- Deputy Chairman	2	3
Mr A.J. Mearns - Acting Deputy Chairman	-	2
- Chief Executive Officer	1	2

	<u>No. of Meetings</u>	
	<u>attended</u>	
	<u>1972/73</u>	<u>1971/72</u>
Mr D.W. Arnold - Acting Chief Executive Officer	1	2
Mr N. Beeck - Authority Member	2	5
Mr H.G. Hall - Authority Member	2	5
Professor A.R. Main - Authority Member	-	1
Mr A.H. Robinson - Authority Member	2	2
Dr D.L. Serventy - Authority Member	-	5
Mr T. Spence - Director, South Perth Zoo	2	5
Dr T.L. Riggert - Senior Research Officer, Waterfowl	2	5

3. Bird Committee

During the year 1972/73 this Committee met five times, as it did the previous year.

Membership

	<u>No. of Meetings</u>	
	<u>attended</u>	
	<u>1972/73</u>	<u>1971/72</u>
Mr H.B. Shugg - Chairman	5	4
Mr A.J. Mearns - Acting Chairman	-	1
- Chief Executive Officer	3	3
- Acting Chief Warden of Fauna	1	-
Mr D.W. Arnold - Acting Chief Executive Officer	2	2
Mr A.H. Robinson - Authority Member	2	5
Dr D.L. Serventy - Authority Member	3	5
Dr S.J.J. Davies - C.S.I.R.O. Wildlife Research	4	4
Mr T. Spence - Director, South Perth Zoo	3	4
Dr G. Storr - Curator of Birds, W.A. Museum	2	1
Mr S.W. Bowler - Supervising Warden	5	5
Dr T.L. Riggert - Senior Research Officer	4	5
Mr A.R. Tomlinson - Chief Vermin Control Officer	-	-
Mr A.J. Oliver - Deputy for Chief Vermin Control Officer	3	-
Mr J. Long - Deputy for Chief Vermin Control Officer	1	-

4. Secretariat

Mr E. Dell, Mr A.C. Edwards, Mr F. Kool, Mr I.R. Wight-Pickin and Mr A.B. Wilton carried out the secretarial function of the Authority and its various standing committees.

II. RESERVES (SANCTUARIES)

A Sanctuary is defined in the Fauna Conservation Act as an area of land "vested in the Crown and which the Governor, subject to such conditions and limitations as he thinks fit, reserves to Her Majesty or disposes of in such a manner as for the public interest may seem fit for the conservation of fauna ..."

A. NUMBER OF SANCTUARIES

<u>June 30</u>	<u>Number</u>	<u>Vested in Authority</u>	<u>Total Area</u>
1973	440	262	5 013 284

30th June, 1973

440 reserves totalling 5 013 284 ha.

The 262 reserves vested in the Western Australian Wild Life Authority total 4 606 484 ha.

B. SANCTUARIES RELINQUISHED

- 24048 131/55. Fitzgerald River Reserve cancelled. Now National Park Reserve 31737.
- 28988 19/61. Twin Lagoons. Manjimup Shire Conservation of Flora and Fauna. Area 1763 acres. Incorporated in new reserve 31880.
- 28989 19/61. Coorinup Swamp. Manjimup Shire. Conservation of Flora and Fauna. Area 328 acres. Incorporated in new reserve 31880.

C. MINING ON SANCTUARIES

The exploration for minerals continued throughout the year but was conducted on a very limited scale. Due to this fact no mineral claims on reserves were presented and the Authority lodged only a small number of informal objections to the Under Secretary for Mines. The result of the majority of these informal objections was the withdrawal of the mineral claim.

There were no formal objections lodged by the Authority against mineral claims on reserves.

D. CONSERVATION THROUGH RESERVES

The Conservation Through Reserves Committee of the Environmental

Protection Authority decided to set up a Scientific Sub-Committee to advise it and assist in the preparation of a report. Dr Andrew A. Burbidge, Senior Research Officer with the Department's Fauna Research Branch was invited to become a member of the Sub-Committee which first met in August 1972.

III. GAME MANAGEMENT

Because of prevailing drought conditions there was no general duck shooting season declared during the summer.

Because of pollution of rural waterways, Maned Geese within the Shire of Dardanup, were subject to an open season between 6 p.m. on January 26, 1973 and midnight April 30, 1973.

Certain restrictions were applied, those being listed in Government Gazette of January 26, 1973.

IV. BIRDS AND MAMMALS

A. IMPORT AND EXPORT OF BIRDS AND MAMMALS

The Fauna Conservation Regulations provide that no fauna shall be imported or exported from this State without a license. Licenses were issued for the movement of the scheduled fauna.

1. Import of Mammals and Birds
2. Export of Mammals and Birds - Interstate
3. Export of Mammals and Birds - Overseas

1. Import of Birds and Mammals (Period 1.7.72 - 30.6.73)

Species	Private or Commercial	Scientific or Zoological
<u>Birds</u>		
Budgerygahs	115	
Canaries	71	
Cockatoos		
Gang Gang		1
Major Mitchell	1	
Palm		1
Sulphur Crested	90	
Weiro	53	
Doves		
Diamond	34	
Peaceful	13	
Finches		
African Firetails	28	
Aurora	16	
Blackheart	2	
Black-throated		12
Blue-faced Parrot	7	
Chestnuts	31	
Cordon-bleu	43	
Cuban	28	
Diggles	16	

1. Import of Birds and Mammals (contd.)

Species	Private or Commercial	Scientific or Zoological
<u>Birds</u>		
Emblemas	59	
Gold	66	
Jacarini	14	
Melba	20	
Orange-breasted	81	
Plumheads	44	
Red-faced Parrot	13	
Ruddies	28	
Star	15	
Galahs	11	
Geese - magpie		16
Lorikeets - Rainbow	8	
Native Hen - (Brush tailed)		3
<u>Parrots</u>		
Blue-winged	5	
Bourke	9	
Crimson-winged	5	
Eastern King	24	
Elegant	4	
Hooded	5	
Red-rumped	13	
Ring-necked	4	
Turquoise	2	
<u>Pheasants</u>		
Fireback	2	
Golden	4	
Lady Amherst	6	
Reeves	4	
Pigeons - Torres St.		2
<u>Quail</u>		
Black-breasted		3
Japanese		3
King	28	

1. Import of Birds and Mammals (contd.)

Species	Private or Commercial	Scientific or Zoological
Red-chested Stubble	6	2
Rosellas		
Crimson	16	
Eastern	36	
Northern	2	
Pale-headed	11	
Turkey - Brush		2
Water-hen Tasmanian		2
<u>Mammals</u>		
Wallabies		
Black-striped		2
Parma		6
Red-necked		2
Wombat		1

2. Export of Birds and Mammals - Interstate (Period 1.7.72 - 30.6.73)

Species	Private or Commercial	Scientific or Zoological
<u>Mammals</u>		
Dunnarts		6
Kangaroos		
Euro		10
Grey - western		2
Planigale		2

2. Export of Birds and Mammals - Interstate (contd.)

Species	Private or Commercial	Scientific or Zoological
<u>Mammals</u>		
Quokka	3	
Wallabies		
Black-gloved Tamarin	1 2	
Woolies	2	

The following figures incorporate Zoological or Commercial and Scientific or Zoological.

Birds

Finches

Gouldian	5464
Double-bar	220
Black-heart	3931
Star	2528
Crimson	323
Masked	1414
Chestnut	48
Pictorella	898
Yellow-rumped	10
	14836

Cockatoos

Sulphur Crested	2
White-tailed Black	9
Red-tailed Black	1
Long Billed Corella	1
Pink & Grey Galah	4
	17

Parrots

Twenty Eights	2326
Western Rosellas	452
Western Kings	100
Regent Parrots	52
Red Capped Parrot	43
Green Rosellas	2
Budgerygahs	9
Indian Ringneck	3
	<hr/>
	2987
	<hr/>

Waterbirds

Musk Duck	2
Great Egrets	4
Western Swamp Hen	2
Banded Stilts	4
Magpie Geese	6
Western Spoonbills	2
Banded Rails	2
Mute Swans	2
	<hr/>
	26
	<hr/>

Others

Canaries	58
Doves	2
Stubble Quail	4
Bustard	2
Golden Pheasants	2
Peach-faced Lovebirds	6
Masked Lovebirds	2
	<hr/>
	76
	<hr/>

Total

17942

3. Export of Birds and Mammals - Overseas (Period 1.7.72 - 30.6.73)

Species	Private or Commercial	Scientific or Zoological
Budgerygahs	3	
Cockatoos		
Major Mitchells	1	
Sulphur-crested	3	
White-tailed Black		2
Corellas		
Long-billed	2	
Short-billed	1	2
Duck - Pink-eared		6
Galahs	26	2
Port Lincoln Parrots	1	2
Shovellers - Australian		3
Swans - Black		1
Whistler, Mangrove Golden		9
<u>Mammals</u>		
Kangaroos		
Euro		6
Grey-western		17
Quokkas		5

B. BIRD TRADING

The demand for Western Australian native birds continued and was evidenced by the licensing of 22 trappers. The majority of trapped birds were exported interstate. Twenty seven persons were licensed to deal in birds.

Birds trapped in year ending June 30, 1973 -

Double Bar	896
Star	4704
Blood	691
Emblema Picta	2635
Blackheart	11010
Gouldian	12995
Masked	4295
Pictorella	2635
Chestnut	16
Galahs	50
Smokers	182
Twenty eights	2197
Western Rosella	1063
Western King Parrot	459

C. OPEN SEASON - FINCHES

The open season on finches in the Kimberley Land Division was reviewed by the Western Australian Wild Life Authority and was declared for the period September 1, 1972 to December 31, 1972.

D. BLACK GRASS WREN

Following the rediscovery of this species by the Harold Hall Expedition in 1968 the Department has been investigating the possibility of reserving the area where the rediscovery was made. Further specimens of this rare species were obtained by W.A. Museum staff in the Mitchell Plateau area.

E. EMUS

Investigations into the status of emus in the agricultural areas continued.

F. LITTLE CORELLA

Mr R. Beeton completed his work at Kununurra for the Hooker

Pastoral Co. and the results of this study are to be published in a Company Report at the end of the calendar year.

V. KANGAROO MANAGEMENT PROGRAMME

A. RED KANGAROOS AND EUROS

Approximately 170 000 red kangaroos were taken for the commercial trade during the 1972-73 licensing year (1st February 1972 - 31st January 1973). The total number of euros taken over this same period was approximately 30 000.

The majority (85%) of the animals taken were shot by licensed professional shooters, but the increase in the numbers taken, in comparison with the 1971-72 licensing year was, in part, due to an appreciable increase in shooting under the authority of damage licenses.

A substantial part of the increase was derived from the Gascoyne and Murchison areas, with a lesser number coming from the West Ashburton and also the Leonora area. The number taken from the Mt. Magnet - Paynes Find area decreased appreciably over the same period.

The variations noted may be ascribed to a combination of population and shooting effort changes.

Commercial shooting in the Leonora district virtually ceased from March 1973, following the break of the prolonged drought in this area.

A trend towards relocation of some of the available shooting effort into the Ashburton and Pilbara areas also occurred.

With the Western Australian Kangaroo trade being particularly dependent on export markets for the disposal of skins, the imposition of import restrictions by the United States and the concurrent imposition of an export embargo on kangaroo products by the Federal Government led to much uncertainty in this sector during the early months of 1973. This factor, and the later occurrence of widespread heavy rains in the pastoral areas, led to a reduction in the rate of harvest during the early months of the 1973-74 licensing year.

B. GREY KANGAROO MANAGEMENT PROGRAMME

This programme has been described in a special leaflet published in September 1972. License tags issued for the year numbered 22022.

VI. GENERAL

A. SMUGGLING

Investigations into bird smuggling has continued. Measures have been taken in collaboration with other States and the Commonwealth to ensure that birds exported under license in this State do not fall into the hands of suspected smugglers.

With the continued high prices offered overseas for our birds, our Wardens have had to be constantly on the alert.

Surveillance has continued of bird dealers, trappers and other persons suspected of illegal activities.

Many patrols have been made in trapping areas, and other remote parts of the State by Wardens, as preventive measures against illegal bird trappers, and although the results have not always rewarded the hard work and long hours our Wardens have had to endure, it has been a preventive measure which has to be carried out.

Invaluable assistance in all types of investigations of breaches of our Fauna Conservation Act and Regulations has been given by the Western Australian Police Force and by honorary wardens.

Details of successful prosecutions are set out in the following Section J.

B. PROTECTION OF CROCODILES

Thanks to the active assistance of members of the Western Australian Police Force stationed at Wyndham, Halls Creek, Fitzroy Crossing and Derby, Father Sanz our Honorary Warden of Fauna at Kalamburu Mission and his staff, plus the help and information provided by owners and managers of cattle stations in the Kimberlies to our Warden at Wyndham, the illegal activities of crocodile poachers from Queensland and Northern Territory have been curtailed.

However, patrols are still being carried out and reports of illegal activities of suspected crocodile poachers have been investigated. It is most pleasing to note reports that the numbers of the Freshwater crocodiles found in the rivers of the Kimberlies are increasing and that the Salt Water Crocodile which was facing possible extinction has shown a slight increase over the past year.

C. LICENSING

The keeping of or dealing in fauna is controlled under the license system. During the twelve months ending June 30, 1973, besides those mentioned previously, the following licenses were issued:-

Licenses to Take fauna for Scientific purposes - Regulation 17

43 persons were licensed to take fauna for general scientific purposes. 14 persons were licensed to take specific fauna for research purposes.

These licenses were issued mainly to official organisations or their employees.

License to take fauna for educational and public purposes - Regulation 15

There were 52 licenses issued for the following purposes -

Care of derelict fauna	13	(no more to be issued)
Collection and study	11	
Study and Display	3	
Educational	7	
Photography	10	
Miscellaneous purposes	8	

Licenses to Keep and Breed Fauna in Captivity - Regulation 12

The 1545 licenses issued were mainly to aviculturists.

Licenses to take Red Kangaroos for Sale - Regulation 6

Fifty four licenses were issued throughout the year.

Licenses to Process Fauna - Regulation 7

Licenses to deal in Kangaroo Carcasses - Regulation 8

Sixty six licenses were issued. These are issued to chiller operators.

Licenses to deal in Kangaroo Skins - Regulation 10

Eighteen were issued.

Licenses to deal in Avian Fauna - Regulation 13

Twenty seven were issued.

Private Zoos - Regulation 14 and 16

Applications for approval to establish displays of local fauna for commercial or tourist purposes continued to increase during the last 12 months.

Each application is fully investigated and each licensed park or zoo is regularly inspected to ensure that the conditions of the license and the requirements of the Act and Regulations are carried out. There are 9 such licensees -

Bullens African Lion Safari - Wanneroo
A. Chugg - Dunsborough
Collie Game Sanctuary - Collie
Manjimup Game Sanctuary - Manjimup
Wave Rock Tourist Development - Hyden
W.A. Marine Aquarium & Oceanarium - Cottesloe
Wellesley Wildlife Park - Benger
Jandakot Wildlife Park - Jandakot

D. SCIENTIFIC COLLECTIONS (July 1, 1972 to June 30, 1973)

(1) Amphibia

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
1	<i>Crinia georgiana</i>	Frog
213	<i>Crinia insignifera</i>	Frog
7	<i>Helioporus sp.</i>	Marsh Frog
1	<i>Litoria adelaidensis</i>	Striped Tree Frog
1	<i>Litoria moorei</i>	Green and Brown Tree Frog

(2) Birds

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
1	<i>Acanthiza uropygialis</i>	Chestnut-tailed Thornbill
3	<i>Acanthorhynchus super-</i> <i>cilius</i>	Western Spinebill
2	<i>Accipiter cirrocephalus</i>	Collared Sparrow Hawk
1	<i>Accipiter fasciatus</i>	Brown Goshawk
6	<i>Aegotheles cristatus</i>	Owlet Nightjar
1	<i>Alcyone asurea</i>	Azure Kingfisher
11	<i>Amytornis houseii</i>	Black Grass Wren
3	<i>Amytornis purnelli</i>	Dusky Grass Wren
2	<i>Amytornis textilis</i>	Western Grass Wren
7	<i>Anas rhynchotis</i>	Blue-winged Shoveller
1	<i>Anas superciliosa</i>	Black Duck

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
1	<i>Anhinga novaehollandiae</i>	Darter
6	<i>Anthochaera carunculata</i>	Red Wattle-bird
4	<i>Anthochaera chrysoptera</i>	Little Wattle-bird
22	<i>Anseranas semipalmata</i>	Magpie Goose
2	<i>Aphelocephala leucopsis</i>	Southern Whiteface
2	<i>Aphelocephala signicineta</i>	Whiteface
4	<i>Aprosimictus erythropterus</i>	Red-winged Parrot
1	<i>Aquila audax</i>	Wedge-tailed Eagle
1	<i>Ardea pacifica</i>	White-necked Heron
4	<i>Ardea picata</i>	Pied Heron
22	<i>Artamus cinereus</i>	Dusky Wood-Swallow
6	<i>Artamus leucorhynchus</i>	White-breasted Wood Swallow
1	<i>Artamus minor</i>	Little Wood Swallow
228	<i>Barnardius zonarius</i> <i>zonarius</i>	Port Lincoln Parrot
1	<i>Biziura lobata</i>	Musk Duck
1	<i>Botaurus poiciloptilus</i>	Brown Bittern
2	<i>Butoroides striatus</i>	Mangrove Heron
561	<i>Cacatua sanguinea</i>	Little Corella
2	<i>Cacatua temirostris</i>	Long-billed Corella
4	<i>Caecomantis variolosus</i>	Brush Cuckoo
1	<i>Calamanthus</i>	Field Wren
6	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper
1	<i>Calidrius melanotos</i>	Pectoral Sandpiper
8	<i>Calidris ruficollis</i>	Red-necked Stint
2	<i>Calyptorhynchus banksi</i>	Red-tailed Black Cockatoo
89	<i>Calyptorhynchus lathamii</i>	White-tailed Black Cockatoo
1	<i>Catharacta lonnbergi</i>	Southern Skua
1	<i>Centropus phasianimus</i>	Pheasant Coucal
3	<i>Chalcophaps indica</i>	Green-winged Pigeon
2	<i>Charadrius alexandrinus</i>	Red-capped Dotterel
2	<i>Charadrius cinctus</i>	Red-kneed Dotterel
1	<i>Charadrius cucullatus</i>	Hooded Dotterel
1	<i>Charadrius leschenaultii</i>	Large Dotterel
2	<i>Charadrius melanops</i>	Black-fronted Dotterel
4	<i>Charadrius veredus</i>	Oriental Dotterel
2	<i>Chlamydera muchalis</i>	Great Bower-bird
17	<i>Chlidonias hybrida</i>	Wiskered Tern
2	<i>Chrysocolaptes osculans</i>	Black-eared Cuckoo
9	<i>Cincolosama alisteri</i>	Nullabour Quail-Thrush
12	<i>Cincolosama castaneo-</i> <i>thorax</i>	Chestnut-breasted Quail-Thrush
57	<i>Cincolosama castanotum</i>	Chestnut Quail-Thrush
5	<i>Cincolosama cinnamomeum</i>	Cinnamon Quail-Thrush
66	<i>Cincolosama marginatum</i>	Quail Thrush
2	<i>Cisticola exilis</i>	Golden-headed Cisticola

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
14	<i>Cladorhynchus leucpcephalus</i>	Banded Stilts
3	<i>Climacteris melanura</i>	Black-tailed Tree-creeper
9	<i>Colluricincla harmonica</i>	Grey Shrike-thrush
12	<i>Colluricincla porvula</i>	Little-breasted Thrush
3	<i>Colluricincla woodwardi</i>	Brown-breasted Thrush
11	<i>Conopophila rufogularis</i>	Rufous-throated Honeyeater
8	<i>Coracina novaehollandiae</i>	Black-faced Cuckoo-Shrike
6	<i>Coracina papunsis</i>	Little Cuckoo-Shrike
2	<i>Corvus bennetti</i>	Little Crow
1	<i>Corvus orru</i>	Australian Crow
1	<i>Coturnix pectoralis</i>	Stubble Quail
1	<i>Cracticus argenteus</i>	Silver Butcher-bird
6	<i>Cracticus nigrogularis</i>	Pied Butcher-bird
2	<i>Cracticus torquatus</i>	Grey Butcher-bird
1	<i>Cuculus pallidus</i>	Pallid Cuckoo
11	<i>Cygnus atratus</i>	Black Swan
2	<i>Dacelo gigas</i>	Laughing Kookaburra
1	<i>Dendrocygna arcuata</i>	Water Whistle-duck
1	<i>Dendrocygna eytoni</i>	Grass Whistle-duck
2	<i>Dicrurus bracteatus</i>	Spangled Drongo
5	<i>Dromaius novae-hollandiae</i>	Emu
7	<i>Ducula humeralis</i>	Bar-shouldered Dove
1	<i>Dupetor flavicallis</i>	Black Bittern
1	<i>Edolisoma tenuirostri</i>	
11	<i>Egretta alba</i>	White Egret
1	<i>Egretta plumifera</i>	Egret
1	<i>Entomyzon cyanotis</i>	Blue-faced Honeyeater
269	<i>Eoluphus noseicapillus</i>	Galah
1	<i>Eopsaltria georgiana</i>	White-breasted Robin
1	<i>Eopsaltria pulverulenta</i>	Robin
3	<i>Epthianura aurifrons</i>	Orange Chat
4	<i>Eudodotes australis</i>	Australian Bustard
2	<i>Eudynamys scolopacea</i>	Koel
1	<i>Eulabeornis castaneiventris</i>	Chestnut Rail
3	<i>Eurostopodus guttatus</i>	Spotted Nightjar
4	<i>Eustomus orientalis</i>	Dollar-bird
1	<i>Falco berigora</i>	Brown Falcon
5	<i>Falco cenchroides</i>	Nankeen Kestrel
3	<i>Falco peregrinus</i>	Peregrine Falcon
1	<i>Falcunculus frontalis</i>	Eastern Shrike-Tit
11	<i>Gallinago megala</i>	Chinese Snipe
2	<i>Geopelia humeralis</i>	Bar-shouldered Dove

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
2	<i>Geopelia striata</i>	Peaceful Dove
6	<i>Geophaps smithii</i>	Partridge Pigeon
6	<i>Gerygone chloroneta</i>	Green-backed Warbler
3	<i>Gerygone fusca</i>	White-tailed Warbler
4	<i>Gerygone magnirostris</i>	Large-billed Warbler
2	<i>Gerygone olivacea</i>	White-throated Warbler
30	<i>Glareola maldivarum</i>	Courser
1	<i>Grallina cyanoleuca</i>	Magpie-Lark
2	<i>Grus rubicunda</i>	Brolga
1	<i>Gymnorhina dorsalis</i>	Western Magpie
9	<i>Gymnorhina tibicen</i>	Black-backed Magpie
1	<i>Haliaster indus</i>	Brahminy Kite
1	<i>Haliaster sphenurus</i>	Whistling Kite
1	<i>Halycon pyrrhopygia</i>	Red-backed Kingfisher
2	<i>Halycon sancta</i>	Sacred Kingfisher
1	<i>Himantopus himantopus</i>	Black-winged Stilt
1	<i>Hirundo ariel</i>	Fairy Martin
2	<i>Hylacola cauta</i>	Shy Heath-Wren
2	<i>Jacana gallinacea</i>	Lotus-bird
6	<i>Lalage leuconida</i>	Varied Triller
6	<i>Lalage sueurii</i>	White-winged Triller
30	<i>Lichmera indistincta</i>	Brown Honeyeater
1	<i>Limosa limosa</i>	Black-tailed Godwit
7	<i>Lophophaps plumifera</i>	Plumed Pigeon
29	<i>Malacorhynchus membranaceus</i>	Pink-eared Duck
1	<i>Malurus dulcis</i>	Lavender-flanked Wren
3	<i>Malurus elegans</i>	Red-winged Wren
1	<i>Malurus lamberti</i>	Variegated Wren
11	<i>Malurus melanocephalus</i>	Red-backed Wren
1	<i>Malurus pulcherrimus</i>	Red-breasted Wren
1	<i>Malurus splendens</i>	Splendid Wren
5	<i>Manorina flavigula</i>	Yellow-throated Minor
1	<i>Megalurus gramineus</i>	Little Grass-bird
1	<i>Megalurus timoriensis</i>	Tawny Grass-bird
1	<i>Megapodius freycinet</i>	Scrub Fowl
3	<i>Meliphaga albilineata</i>	White-lined Honeyeater
12	<i>Meliphaga flavescens</i>	Yellow-tinted Honeyeater
1	<i>Meliphaga leucotis</i>	White-eared Honeyeater
15	<i>Meliphaga viriscens</i>	Singing Honeyeater
3	<i>Melithreptus albogularis</i>	White-throated Honeyeater
2	<i>Merops oratus</i>	Rainbow-bird
1	<i>Microeca leucophaea</i>	Brown Flycatcher
12	<i>Mirafra javanica</i>	Singing Bushlark
4	<i>Myiagra alecto</i>	Shining Flycatcher
3	<i>Myiagra inquieta</i>	Restless Flycatcher

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
12	<i>Myiagra rubecula</i>	Leaden Flycatcher
3	<i>Myiagra ruficallis</i>	Broad-billed Flycatcher
2	<i>Myzomela erthrocephala</i>	Red-headed Honeyeater
10	<i>Myzomela pectoralis</i>	Banded Honeyeater
6	<i>Neochima phaeton</i>	Crimson Finch
2	<i>Neophema elegans</i>	Elegant Parrot
6	<i>Neositta leucoptera</i>	White-winged Sittella
1	<i>Nettapus pulchellus</i>	Green Pygmy Goose
3	<i>Ninox connivens</i>	Barking Owl
1	<i>Ninox novaeseelandiae</i>	Boobook Owl
1	<i>Numenius minitus</i>	Little Wimbrell
12	<i>Ocyphaps lophotes</i>	Crested Pigeon
4	<i>Oriolus flavocinctus</i>	Yellow Oriole
1	<i>Oriolus sagittatus</i>	Olive-backed Oriole
5	<i>Pachycephala inornata</i>	Gilbert's Whistler
5	<i>Pachycephala pectoralis</i>	Golden Whistler
16	<i>Pachycephala rufiventris</i>	Rufous Whistler
6	<i>Pardalotus melanocephalus</i>	Black-headed Pardalote
1	<i>Pardalotus punctatus</i>	Spotted Pardalote
1	<i>Pardalotus rubricatus</i>	Red-browed Pardalote
2	<i>Pelagodroma marina</i>	White-faced Storm-Petrel
13	<i>Petrophassa albipennis</i>	White-quilled Rock-Pigeon
1	<i>Phalacrocorax melano-leucos</i>	Little Pied Cormorant
10	<i>Philemon argenticeps</i>	Silver-crowned Friar-bird
10	<i>Philemon citreogularis</i>	Little Friar-bird
1	<i>Phylidonyris novaehollandiae</i>	New Holland Honeyeater
6	<i>Pitta iris</i>	Rainbow Pitta
131	<i>Platycerus icterotis</i>	Western Rosella
4	<i>Platycerus venustus</i>	Northern Rosella
1	<i>Pluvialis squatarola</i>	Grey Plover
4	<i>Podargus strigoides</i>	Tawny Frogmouth
2	<i>Podiceps novaehollandiae</i>	Australian Little Grebe
2	<i>Poecilodryas cervini-ventris</i>	Buff-sided Robin
10	<i>Poephila acuticaudi</i>	Long-tailed Finch
5	<i>Poephila bichenovii</i>	Double-bar Finch
1	<i>Poephila personata</i>	Masked Finch
85	<i>Polytelis anthopeplus</i>	Regent Parrot
1	<i>Pomatostramus rubeculis</i>	Babbler
2	<i>Pomatostramus superciliosus</i>	White-browed Babbler
24	<i>Pomatostramus temporalis</i>	Grey-crowned Babbler
5	<i>Porzana cinerea</i>	White-browed Crake

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
7	<i>Porzana fluminca</i>	Spotted Crake
2	<i>Porzana pusilla</i>	Masked Crake
80	<i>Purpicreicephalus spurius</i>	Red-capped Parrot
2	<i>Pyrrholaemus brunneus</i>	Red throat
1	<i>Rallus philippensis</i>	Banded land rail
5	<i>Ramsayornis fasciatus</i>	Bar-breasted Honeyeater
4	<i>Rhipidura fuliginosa</i>	Grey Fantail
12	<i>Rhipidura setosa</i>	Fantail
32	<i>Sericornis maculatus</i>	Spotted Scrub-Wren
4	<i>Smicronis brevirostris</i>	Weebill
6	<i>Sphecotheres flaviventris</i>	Yellow Fig-bird
2	<i>Sterna anaethetus</i>	Bridled Tern
2	<i>Sterna nereis</i>	Fairy Tern
2	<i>Sterna nilatica</i>	Gull-billed Tern
2	<i>Streptopelia chinensis</i>	Ringneck Dove
9	<i>Streptopelia senegalensis</i>	Senegal Dove
23	<i>Taeniopygia castanotis</i>	Zebra Finch
1	<i>Threskiornis spinicollis</i>	Straw-necked Ibis
5	<i>Trichoglossus haematodus</i>	Rainbow Lorikeet
19	<i>Trichoglossus versicolor</i>	Varied Lorikeet
1	<i>Tringa glareola</i>	Wooded Sandpiper
2	<i>Tringa hypoleuca</i>	Common Sandpiper
1	<i>Turnix varia</i>	Painted Quail
1	<i>Turnix velox</i>	Little Quail
1	<i>Vanellus miles</i>	Masked Plover
1	<i>Zosterops lateralis</i>	Grey-breasted Silvereye

(3) Fish

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
10	<i>Galaxias spp.</i>	

(4) Mammals

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
6	<i>Antechinus flavipes</i>	Mardo
4		Bats

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
9	<i>Bettongia penicillata</i>	Woolie
3	<i>Concinnus</i>	Pigmy possum
1	<i>Dasyurus geoffroii fortis</i>	Chudich
2	<i>Hydromys chrysogaster</i>	Western Water-Rat
3	<i>Isoodon obesulus</i>	Quenda
2	<i>Macropus eugenii</i>	Tammar
146	<i>Mus musculus</i>	House mouse
5	<i>Pseudochirus occidentalis</i>	Western Ringtailed Possum
120	<i>Rattus fuscipes</i>	Bush Rat
9	<i>Rattus rattus</i>	Black Rat
105	<i>Setonix brachyurus</i>	Quokka
1	<i>Sminthopsis crassicaudata</i>	Fat-tailed Dunnart
6	<i>Sminthopsis murina</i>	Dunnart
2	<i>Tachyglossus aculeatus</i>	Echidna
5	<i>Trichosurus vulpecula</i>	Brush-tailed Possum
1	<i>Wallabia irma</i>	Black-gloved Wallaby

(5) Reptiles

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
<u>Lizards, Geckos, Monitors and Dragons, etc.</u>		
4	<i>Amphibolurus barbatus</i>	Bearded Dragon
18	<i>Amphibolurus inermis</i>	Dragon
6	<i>Amphibolurus maculatus</i>	Western military Dragon
43	<i>Amphibolurus ornatus</i>	Ornate Dragon

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
1	<i>Ctenotus sp.</i>	
2	<i>Ctenotus saxatilis</i>	
1	<i>Delma greyi</i>	Legless Lizard
1	<i>Diplodactylus ciliaris</i>	Spiny-tailed Gecko
16	<i>Egernia corinata</i>	Smith's Skink
2	<i>Egernia depressa</i>	Depressed Spiny Skink
3	<i>Egernia kingii</i>	King Skink
1	<i>Gehyra australis</i>	Variegated Gecko
1	<i>Hermiergus peronii</i>	
1	<i>Lerista mictrotis</i>	
1	<i>Physignathus gilberti</i>	Marbled Gecko
1	<i>Pygopus lepidopodus</i>	Scaly-footed Lizard
1	<i>Rhyncroedura ornata</i>	Beaked Gecko
1	<i>Sphenomorphus isolepis</i>	Skink
26	<i>Tiliqua rugosa</i>	Blue-tongued Lizard
1	<i>Varanus brevicauda</i>	Pigmy Monitor
1	<i>Varanus caudolineatus</i>	Ridge-tailed Monitor
1	<i>Varanus gouldii</i>	Gould's Goanna
1	<i>Varanus temorensis</i>	Pigmy Monitor
	<i> scalaris</i>	
1	<i>Varanus tristis</i>	Freckled Monitor
<u>Snakes</u>		
1	<i>Brachyaspis curta</i>	Bardick
1	<i>Demansia affinis</i>	Whip Snake
1	<i>Demansia nuchalis affinis</i>	Dugite
3	<i>Denisonia coronata</i>	Crowned Snake

<u>No. Licensed</u>	<u>Scientific Name</u>	<u>Common Name</u>
1	<i>Denisonia suta</i>	Myall Snake
1	<i>Liasis fuscus</i>	Water Python
1	<i>Notechis scutatus occidentalis</i>	Tiger Snake

E. AMENDMENTS TO THE ACT

There was no amendment made to the Fauna Conservation Act 1950 during the year 1972/73.

The following ministerial notices were published in the Government Gazette:-

Government Gazette (No. 64) of 21st July, 1972 -

Open season for finches in Kimberley Division from September 1 to December 31, 1972.

Government Gazette (No. 95) of 6th October, 1972 -

Classification of "A" Class Reserve 9838 as a Shooting or Hunting Area.

Government Gazette (No. 114) of 15th December, 1972 -

Open season for ducks in Kimberley, North West and Eastern Divisions from January 1, 1973 to December 31, 1973.

Government Gazette (No. 116) of 22nd December, 1972 -

Open season for mountain ducks and maned geese from December 22, 1972 to April 30, 1973 in various Shires.

Government Gazette (No. 8) of 26th January, 1973 -

Open season for Emus in various Shires.

Government Gazette (No. 8) of 26th January, 1973 -

Open season for maned geese from January 26, 1973 to April 30, 1973 in the Shire of Dardanup.

Government Gazette (No. 8) of 26th January, 1973 -

Open season for emus in various Shires.

Government Gazette (No. 14) of 9th February, 1973 -

Declaration of the following fauna as rare and likely to become extinct:-

Partridge Pigeon (*Geophaps smithii*)
Burdekin Duck (*Tadorna radjah*)
Red-tailed Tropic Bird (*Phaethon rubricauda*)
Peregrine Falcon (*Falco peregrinus*)
Grass Owl (*Tyto longimembrii*)
Princess Parrot (*Polytelis alexandrae*)

Government Gazette (No. 32) of 4th May, 1973 -

Open season for Little Corellas in the Kimberley Division.

Government Gazette (No. 32) of 4th May, 1973 -

Deletion of Little Corellas from the schedule of species to be not protected.

Government Gazette (No. 34) of 11th May, 1973 -

Declaration of the following fauna as rare and likely to become extinct:-

Mammals

Barrow Island Euro (*Macropus robustus isabellinus*)
Crescent Nail-tailed Wallaby (*Onychogalea lunata*)
Spectacled Hare Wallaby (*Lagorchestes conspicillatus*)
Western Hare Wallaby (*Lagorchestes hirsutus*)
Banded Hare Wallaby (*Lagostrophus fasciatus*)
Bush-tailed Rock Wallaby (*Petrogale penicillata*)
Rothschild's Rock Wallaby (*Petrogale rothschildi*)
Woolie (*Bettongia penicillata*)
Boodie (*Bettongia lesueur*)
Broad-faced Potoroo (*Potorous platyops*)
Gilbert's Potoroo (*Potorous tridactylus gilberti*)
Little Barred Bandicoot (Marl) (*Perameles bougainville*)
Pig-footed Bandicoot (*Chaeropus ecaudatus*)
Dalgyte (Rabbit-eared Bandicoot) (*Macrotis lagotis*)
Rusty Numbat (*Myrmecobius fasciatus rufus*)
Dibbler (*Antechinus apicalis*)
Little Red Antechinus (*Antechinus rosamondae*)
Long-tailed Dunnart (*Sminthopsis longicaudata*)
White-tailed Dunnart (*Sminthopsis granulipes*)
Troughton's Dunnart (*Sminthopsis murina ooldea*)

Narrow-nosed Planigale (*Planigale tenuirostris*)
Kimberley Planigale (*Planigale subtilissima*)
Rock-haunting Ringtail (*Petropseudes dahli*)
Scaly-tailed Possum (*Wyulda squamicaudata*)
Big-eared Hopping Mouse (*Notomys megalotis*)
Long-tailed Hopping Mouse (*Notomys longicaudatus*)
Dusky Hopping Mouse (*Notomys fuscus*)
Stick-nest Rat (*Leporillus conditor*)
White-tipped Stick-nest Rat (*Leporillus apicalis*)
Western Mouse (*Pseudomys occidentalis*)
Shark Bay Mouse (*Pseudomys praeconis*)
Gould's Native Mouse (*Pseudomys gouldii*)
Shortridge's Native Mouse (*Pseudomys shortridgei*)
Dugong (*Dugong dugon*)

Reptiles

Western Swamp (Short-necked) Tortoise (*Pseudemydura umbrina*)
Salt-water Crocodile (*Crocodylus porosus*)
Fresh-water Crocodile (*Crocodylus johnstoni*)

Government Gazette (No. 34) of 11th May, 1973 -

Addition of Palm Squirrels to the schedule of species
declared to be not protected.

Government Gazette (No. 35) of 18th May, 1973 -

Open season for Little Corellas in the Shire of Coorow.

Government Gazette (No. 45) of 15th June, 1973 -

Deletion of the Shire of Wanneroo from the schedule of
Shires in which an open season on emus had previously been
declared.

F. FAUNA CONSERVATION REGULATIONS

Regulations published in the Government Gazette of August 18, 1972 provided that the royalty fee on red kangaroos be increased by 10 cents to 20 cents as recommended by the Red Kangaroo Advisory Committee. Treasury agreed with the Committee's recommendation that from C.R.F. a sum equivalent to the additional 10 cent levy would be made available for distribution to district vermin boards.

A new regulation was published in the Government Gazette of October 6, 1972 which placed the responsibility for the operation of a chiller unit and the submission of returns for the

unit upon the person in charge of the unit. Experience had shown that many professional kangaroo shooters preferred to operate their own chiller as against forwarding carcasses taken through a chiller operated by a dealer. The new regulation provided for the operation of chillers and the submission of returns to be uniform throughout the kangaroo industry.

The regulations were further amended by gazettal dated May 4, 1973. This provided for a separate identifiable tag for euros as well as red kangaroos so that returns collected on animals taken would be more precisely defined. As some interest was evident in the marketing of emus a separate identifiable tag and royalty of 20 cents was prescribed for emus.

G. FINANCE

The cost of administration of the Fauna Conservation Act was met from normal departmental funds. A copy of a statement on the Fauna Conservation Trust Fund signed and certified by the Auditor General is on the following page. The Fauna Conservation Act provides that all fees for game licenses issued to take wild duck or quail shall be deposited in the Fauna Conservation Trust Fund account kept at the Treasury.

The Act provides that moneys from the fund may be applied to any research relating to fauna conservation or for any other purposes relating to the conservation of fauna. License fees credited to the fund increased the balance by only \$628.00 as an open season on wild duck was not declared in the South West and Eucla Divisions in 1972/73. A total of \$10 625.00 has now been invested by the Treasury in a savings bank account. The Western Australian Wild Life Authority proposed to consider and recommend projects for the expenditure of the Trust Fund moneys. The Authority set up a group to study proposals to restore the water level of Lake Taarblin and to install sluice gates on the Beverley Lakes in order to reduce the salinity.

FAUNA CONSERVATION TRUST FUND
FINANCIAL STATEMENT FOR YEAR 1.7.72 TO 30.6.73

\$ ¢
10 410.19 Cr

1 105.01 Cr

\$11 515.20 Cr

Balance brought forward at 1.7.72

REVENUE: Game License Fees 628.00
 Donations & Bequests 251.01
 Interest on Investment 225.00
 Ord Noah 1.00

N.B. \$10 625 has been invested out of this Fund, in R. & I. Savings Bank Account No. 35/94203, which amount has been debited to Treasury Investment Account.

Certified Correct

W. Imms (signed)
ACCOUNTANT

B.K. Bowen (signed)
DIRECTOR OF FISHERIES & FAUNA

I certify that this statement is correct.

July 23, 1973
W. Adams (signed)
AUDITOR GENERAL

H. ACCOMMODATION

Due to the necessity to meet the specialised needs of the fauna research branch, tenders were called by Public Works Department for the erection of a research station at Wanneroo near Lake Joondalup. The new research station is designed to accommodate the waterfowl research section, reserve management and acquisitions section and the macropod research unit who are housed in temporary accommodation in Ellam Street, Victoria Park and 266 Hay Street, East Perth. The Hon. Minister for Works approved of the acceptance of a tender for \$139 912.00 for the new research centre. The building was expected to be ready for occupation early in the forthcoming year.

The Metropolitan Fauna Wardens continued to be housed in the Department's Head Office in Adelaide Terrace.

I. STAFF

Fauna Wardens

During 1973, a new Fauna District was created at Manjimup. This was necessary to meet increased pressures of Departmental business mainly due to the Grey Kangaroo Management Programme.

Permission was also granted for the appointment of a Trainee Warden on the temporary staff.

Appointments, Transfers, etc

J. Wilson	Transfer from Albany to Relieving Staff.
I. Cooke	Transfer from Moora to Albany
R. Gardiner	After return from National Service was promoted and transferred to Moora.
D. Mell	After return from National Service took up his appointment at Waroona.
G. Hanley	Transfer from Wyndham to Esperance.
R. Grayson	Transfer from Esperance to Albany
D. Noble	Transfer from Wongan Hills to Onslow
R. Dear	Transfer from Onslow to Manjimup
J. Neal	Transfer from Carnarvon to Wongan Hills

P. Lambert Appointed to Kalgoorlie, ex Fisheries
Inspection Staff.

R. Smith Appointed as temporary Trainee Warden
Metropolitan area.

A. McKenzie Appointment terminated on October 6, 1972.

Disposition of Wardens at 30.6.73

Perth: Supervising Warden S.W. Bowler
Metropolitan Warden A.R. Marshall
Trainee Warden K. Miller
Trainee Warden M. Osborn
Trainee Warden R. Smith
Kangaroo Control Warden, Perth, Vacant

Wyndham: I. Cooke

Onslow: D. Noble

Carnarvon: L. Silvester

Geraldton: P. Pennings

Wongan Hills: J. Neal

Moora: R. Gardiner

Waroona: D. Mell

Pingelly: L. Moss

Busselton: K. Morrison

Albany: R. Grayson

Manjimup: R. Dear

Kalgoorlie: P. Lambert

Mt. Magnet: W. Mahoney

Esperance: G. Hanley

Relieving Staff: J. Wilson

Fauna Research

Mr R. Hudspeth was appointed to Technical Officer, Macropod

Research in June, 1972.

Mr K. Youngson, previously an assistant in the W.A. Museum, was appointed Technical Officer, Biological Survey, in July 1972.

Mr R. Sokolowski was appointed to Two Peoples Bay in August 1972.

The item created in 1971/72 for a biologist to carry out habitat studies in reserves had not been filled at 30.6.72.

Head Office

The Chief Warden of Fauna, Mr H.B. Shugg is assisted in fauna matters by the Assistant Administrative Officer, Mr A.J. Mearns. Mr Mearns is the Chief Executive Officer of the Authority. A senior clerk and a licensing officer were fully employed on fauna matters. The Fauna branch was serviced by the normal departmental clerical and administration back-up.

J. ENFORCEMENT

Due to increased public awareness and publicity through the media, the number of complaints received from private citizens has shown a considerable increase.

In most cases wardens were able to follow up such reports but very few led to wrongdoers being prosecuted. This was mainly due to the lack of detail in the reports and by the time a warden could get to the scene it was too late to get vital evidence.

Nevertheless, the Department's thanks are extended to all Honorary Wardens. Dedicated appointees are "the eyes and ears" of Wardens in the field. While they lead to few convictions, they do by their presence and by precept, deter would-be offenders.

Due to the size of their Fauna Districts, Wardens find it difficult to detect offences, and assistance from honorary wardens and the public is essential if protection is to be made to work.

Various offences against the Fauna Conservation Act and Regulations were detected in 1972/73.

Details of convictions recorded were as follows:-

Section of Act or Regulation	Number	Fine
Section 15 (License condition)	1	\$ 62
Regulation 50(2) (Illegal Tags)	1	\$ 37
Section 16 (Offending Protection)	9	\$631
TOTAL	11	\$730

K. PUBLICITY

Coverage of important matters relating to fauna and habitat preservation was released through the various news media.

A display was again contributed to the Western Australian Wildlife Show.

The department's quarterly journal, S.W.A.N.S. (State Wildlife Advisory News Service) which has international distribution was well received.

There was no Duck Shooters' Guide this year as drought conditions necessitated the postponement of the season.

The following research report was published:-

Report No. 12 Results of a Biological Survey
of a Proposed Wildlife Sanctuary
at Dragon Rocks near Hyden
Western Australia

by N.L. McKenzie B.Sc. (Hons.)
A.A. Burbidge B.Sc. (Hons.) Ph.D

Letters requesting project material were again received from the public and students which necessitated leaflets and roneod booklets to be collated on conservation and wildlife.

L. FAUNA RESEARCH ACTIVITIES

Professional Officers of this branch continue to be pressed by the large amount of time spent providing advice to other Departments and organisations and sitting on various committees. Committees on which members of the Branch sat included:-

- Swan River Conservation Board
- Peel Inlet Conservation Advisory Committee
- W.A. Wild Life Authority Reserves Committee
- W.A. Wild Life Authority Game Committee
- W.A. Wild Life Authority Bird Committee
- Red Kangaroo Advisory Committee
- Red Kangaroo Biological Working Group
- Peel Sub-region Planning Committee
- Perth Water and Burswood Island Foreshore Advisory Committee
- Coastal Sand Drift and Sea Erosion Committee
- Technical Committee on Water Quality
- Environmental Protection Council (deputy)
- Australian Fauna Authorities Conference - Scientific Advisor
- Australian Committee on Waterbirds (AFAC)
- AFAC Macropod Habitat Committee
- AFAC Macropod Biological Committee
- APB Emu Committee
- Vermin Control and Fauna Conservation Co-ordinating Committee
- Conservation Through Reserves Scientific Sub-Committee
- Avon Valley Fire Protection Committee

Staff also gave talks and lectures to a variety of seminars and meetings.

In addition advice was frequently sought on a wide variety of problems connected with Industrial Development, sub-divisions and planning schemes, drainage and reclamation, etc.

As reported last year the considerable amount of time spent on the above activities continues to make serious inroads into the time available for research.

Research Areas

1. Biological Survey

Work continued on the survey of various wheatbelt shires - notably the Shire of Kent. Many field trips were made during the year to gather data on the plants and soils so that a comparative assessment of the Crown land in the shire could be made. Notable among these surveys was a

survey undertaken at the south end of Lake Chinocup in February 1973. As a result of this, in February and March 1973 work was done around Lake Grace North and Lake Grace South.

In July and August 1972 two surveys were undertaken on a large area of Crown land south of Hyden. This work was undertaken in conjunction with the W.A. Herbarium.

In May 1973 a preliminary wildlife survey was completed on a large area of vacant Crown land north of Denmark. This work is continuing and comparative work on an even larger area in the nearby Kent River basin is scheduled for next year.

During May and June 1973 preparations were made for another major survey of the islands on the West Kimberley coast. This expedition departed Perth on June 25.

2. Macropods

(a) Red Kangaroo Management Programme.

Two trips were made over this period to collect samples from the animals being taken in the field by licensed professional shooters. The first of these was to the Leonora area in early December, 1972.

Rains which later proved to have preceded the real breaking of the prevailing drought in this area had fallen in the areas being sampled in July and September 1972.

Two separate samples were taken, totalling 181 animals in all. These included 116 females and 65 males. Only five of these animals (3 males, 2 females) appeared to be less than *ca.* four years of age.

Little overt shooter bias was noted during the taking of the animals in these samples. The sex ratio indicated above can therefore be considered typical of the adult populations being hunted at the time. The areas being sampled had also suffered from almost 4 years of drought by December 1972, so the very low number of younger animals found in the samples taken is consistent with the virtual cessation of successful breeding over the period of the drought. This is a common feature of reproduction in these kangaroos.

The reproductive status of the females included in these samples was also found to be consistent with the sequence

of events outlined, although the two sub-sample groups differed. In one group, two-thirds of the pouch-young found were less than, or equal to, 30 days of age, and 90% were less than 60 days, while in the other group half were less than, or equal to, 60 days, and another 30% were between 120 and 170 days. Sixty per cent of the females in this later group had pouch young; while less than 50% of the former group did. In each group about 10% of the females also appeared to be sexually immature despite their age and there was further evidence that others had not emerged from a state of anoestrus.

These sampling data are typical of a red kangaroo population which has endured a prolonged drought, but recently experienced some amelioration of the prevailing drought stress.

The second trip was undertaken during the latter half of May, 1973 with sampling being concentrated in the area to the south and east of the Murchison River and mostly within the Murchison Shire. A feature of the sampling data obtained here was the apparent difference in the frequency of post partum oestrus and successful mating in sexually mature females taken over different parts of the area sampled. In one of the sub-sample groups taken, two-thirds of the females which could have been expected to be carrying unimplanted blastocysts were found to be doing so, but in another sub-sample group the proportion was halved. Only 30% of the available females in this latter group were found to be carrying unimplanted blastocysts.

Collection and collation of hunting data from the licensed kangaroo shooters has continued.

(b) Grey Kangaroo Management Programme.

Five field trips were made by Research personnel during this year. The main effort was directed to the Lower South-west and Great Southern districts and out to the Ravensthorpe area but one trip covered the area along the Eyre Highway from Norseman to Eucla.

Samples of skulls of animals taken under this programme were collected where available.

(c) Miscellaneous.

One trip to the Ongerup area was made to check reports of Tamar (*Macropus eugenii*) being sighted on a block of private land being cleared. The presence of the

species was confirmed.

3. Estuarine Wildlife

Regular surveys of Swan River wading-bird populations were made during 1972. These surveys identified the areas of the river which are most important as habitat for resident and migratory wading birds and provided data on seasonal fluctuations in wader numbers. It is anticipated that these areas will soon become fauna reserves, thus ensuring protection of the habitat they contain.

A migratory wading-bird banding programme was initiated in January 1973. The principal aim of this project is to increase our knowledge of the migratory movements of these birds, both within Australia and overseas. The study will also provide information on other aspects of wader biology such as life-span, moult cycles, weight changes, etc. Banding operations are presently confined to the Swan River.

4. Pesticides and Wildlife

During July and August 1973 a variety of birds was collected in the Ord River irrigation area for pesticide-residue analysis. Analyses of selected tissues were performed by the Government Chemical Laboratories. All tissues analysed contained residues of DDT and its metabolites. Highest levels were found in tissues of insectivores and raptors.

5. Reserve Management

Due to pressures of administrative and advice work, especially associated with the design and construction of the new Wildlife Research Centre at Wanneroo and the Conservation Through Reserves Committee, little research work has been done.

The development of prescribed burning techniques at Tutanning and elsewhere has continued. Prescribed burns have been carried out by Departmental staff at Tutanning and by the Forests Department at Boyagin. In the latter case this Department met all costs.

Research work continued on the Short-necked Tortoise. This species continues to give cause for concern since the population continues to decline. No breeding has occurred since 1968. In February 1973 a bush-fire burned out about 60% of the Twin Swamps Wildlife Sanctuary, the more important of the two reserves. Searches following the fire did not

reveal any dead animals and one live tortoise was picked up by fire fighters during the fire. It may require several years work before an assessment of the effect of fire on the population can be made.

The construction of firebreaks on reserves continued - the following work being completed:-

Lake Thompson	-	12 miles
Boyagin	-	14 miles
Tutanning	-	12 miles
Lake Magenta	-	37 miles

Maintenance work was carried out at Tutanning, Two Peoples Bay, Wanneroo Research Station Site, and Lake Thompson.

A visit was made to Barrow Island in December 1972 by Research Branch personnel, accompanied by Mr N. Beeck, a member of the W.A. Wild Life Authority, and Dr N. Marchant of the W.A. Herbarium. A general inspection of the island was made, spotlight counts of animals conducted, and plant regeneration studies commenced. Results will be published at a later date. Acknowledgement of the assistance of W.A. Petroleum is made.

6. Waterfowl Research and Game Management

The continuing projects are being carried out by the Waterfowl Research section:-

- (a) The study of population dynamics of the Mountain Duck (*Tadorna tadornoides*) on Rottnest Island.
- (b) The general Waterfowl Banding Programme operating in the districts of Moora, Katanning and Metropolitan area.
- (c) A statistical analysis of the hunting - duck kill effort on a waterfowl population at Lake View Farm - Moora.
- (d) The erection of artificial nesting boxes for waterfowl in the lower South-west.
- (e) Aerial surveys to evaluate waterfowl populations and wetlands for the forthcoming duck hunting season.
- (f) Removal of domestic ducks from metropolitan lakes and swamps where numerous instances have occurred in hybridisation with wild ducks.

Expansion of Projects

The major portion of the research effort by the Waterfowl Research unit has been to continue projects that were commenced in previous years. It is necessary to collect data on biological projects such as those listed above for a period of several years so that trends and cycles that occurred during the research period reflect the various situations that affect the interpretation of the data.

New Projects:

A study of the Magpie Goose (*Anseranas semipalmata*) and its effect on sorghum growing at Kununurra.

The steadily increasing numbers of Magpie Geese on the Sorghum crops at Kununurra is causing concern both to the farmers and to Ansett Airlines. The farmers are concerned that it may become uneconomic to grow sorghum because of the damage both to seedlings and standing crop and the Airlines are concerned with a possibility of bird strike on one of their aircraft. The present project is to evaluate the problem and to ascertain the possibilities of control in what the long term effects may be to both agriculture and air traffic in Kununurra.

Observations on Juvenile Mute-Swans (*Cygnus olor*) removed from Northam suffering from wing deformities.

Four juvenile mute swans were found to be incapable of flight because of wing deformities. The cause of the deformities is not known and observations of the birds during trial feedings with vitamin 'E' supplement may help to correct the present deformities.