



Report of a Survey of the Vertebrate Fauna of Contine (Dryandra)  
Forestry Reserve, South-West of Western Australia.

by W.H. Butler

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Introduction

The Contine Forestry Reserve is an area of approximately 6,000 acres situated 18 miles west of Narrogin in an area which is well known to be rich in endemic species of mammals. The Highbury Forestry Reserve is a smaller area of approximately 3046 acres situated about 20 miles south of the Contine Forestry Reserve. The principal forest produce of the reserves is Mallet bark (*Eucalyptus astringens*) but recent changes in the economics of the industry have cast some doubt on the long-term security of forests which are at present protected for this purpose. In order to determine whether these Forestry Reserves should become Fauna reserves or be released for agricultural purposes the Fauna Protection Advisory Committee required a survey to be made. The Western Australian Museum and the American Museum of Natural History (including the Archbold Collections) authorised me to assist the State Authority. Collections resulting from this survey are to be deposited in the collections of the two museums.

The Contine Forestry Reserve

This area comprises portion of State Forest 51 which includes Williams locations 13824, 14144, 13823, 14337, 14143, 11414, 13825, 11730, 13825, 14771, 13826, 14142, 11006, 14340, 13804, 4852, 15280, 9029, 13511, 10844, 13129, 15207, 14141, 4241, 13128 and 14126 shown on Lands Department litho 385A/40.AI., and Williams locations 4427, 13050, 13049 and 14126 on Lands Department litho 3848/40 F.I. All are in Williams Land District, South West Land Division, and included in the Shires of Narrogin and Williams.

The first location was gazetted State Forest 51 on December 7, 1934 (Government Gazette P.1868).

Since that date the area has been increased or decreased from time to time.

The Highbury Forestry Reserve

This piece of land comprises Reserve No. 19105, including Williams locations 12565, 5795, 13185, 14180 and 10402 and Reserve No. 19107 (location 14246). It also includes a portion of State Forest 52, comprising locations 14176, 14177, 12139, 8968, 8969, 14178, 13143, 14181, 9697 and a portion of 11018. The first location was gazetted as State Forest 52 on September 27, 1935.

Since that date the area has from time to time been varied.

Highbury Forestry Reserve in the Shire of Narrogin and shown on Lands Department litho 385 D/40 B.4 Williams Land District, South West Land Division.

The Forests Department refers to the area as the Ashby and Quinns blocks. The blocks are discontinuous and are broken into 5 separate units. These tend to be elongated, thus allowing a maximum effect from flanking agricultural influences, such as burning and temperature rise due to clearing.

Both reserves are located in the Wandoo (Eucalyptus wandoo) forest area which lies along the eastern edge of the Jarrah (E. marginata) forest. Farms in the region produce wheat, wool, pigs, poultry, oats, barley, rye, clover seed and dairy beef.

GeologyContine Reserve

This is situated at the eastern edge of the Darling Range, and consists of a lateritic plateau deeply eroded by steep-sided gullies, often down to underlying granite. The area is drained by the Crossman River (a tributary of the Hotham River) but contains a few natural springs or soaks in addition. The source of the surface water in the vicinity is principally the "dams" and windmills of surrounding farms. The laterite erodes to a coarse gravel and the granite to a coarse white sand, but there are large areas of soft fine loam rich in humus. Because there is very little fast drainage, all alluvium is held in flood plains. Some small areas of clay flat occur on the more gentle slopes at the foot of the laterite breakaways.

Highbury Reserve

This reserve is very similar to that at Contine, although the following differences were noted -

- (a) The area is drained by the Arthur River, a tributary of the Blackwood River. The land appears to have no natural soaks or springs. There is surface water available from "dams" and windmills on surrounding farms.
- (b) There is much more exposed granite than in the Contine

area, with resultant differences in soil content.

(c) The area appears to be flatter than Contine reserve and has a less marked divergence of habitat in a short distance.

### Climate

The climate of the reserves is not known in detail, but since they lie between the weather recording stations of Narrogin and Williams it can be assumed to be close to conditions recorded there. These data are presented in Table 1.

Weather conditions were recorded during the survey and these results are presented in Table 2.

Vegetation

On the laterite, Jarrah (Eucalyptus marginata), with occasional Marri (E. calophylla), are dominant with big thick stands of Dryandra formosa and Banksia sphaerocarpa as under-story dominants. There is occasional Xanthorrhoea reflexa. On the sands (and on the sand-influenced loams and gravels) Marri is dominant but as the loams become less sandy, open Wandoo (E. wandoo) forest is encountered. This is occasionally interspersed with stands of Jam (Acacia acuminata). On the richer soils big stands of Mallet (E. astringens) are found with a low ground cover of Bullock Poison (Gastrolobrium trilobum). These are often flanked by Powderbark Wandoo (E. accedens) with Box Poison (Oxylobium parviflorum) undergrowth and an occasional patch of a low Mallee (mainly E. drummondii), which favours the clay flats. Exotic grasses, mainly fescues, have invaded the area to a large extent. There are occasional stands of Sheoak (Casuarina huegeliana) on granite. In the Highbury reserve Casuarina is much more common as there is much more exposed granite.

Human AlterationsContine Reserve

The area is traversed by fire breaks and roads which have been placed by the Forests Department to give access to enable fire protection measures to be applied. In the approximate centre of the area is a small 'turkey nest' dam of about 3000 gallon capacity; at the eastern end near the Forests Department ranger's house is another dam about the same size which receives its water from a granite slope.

The reserve is fenced along all boundaries with well maintained 5 strand and wire mesh fences erected by neighbouring farmers.

Highbury Reserve

Access roads are few and those that are present are ill-defined. Boundary tracks exist on the adjoining farmer's side of the fence, but none are located inside the reserve. The only firebreak seen in the reserve was ploughed by a local farmer desirous of burning the adjoining block for clearing.

All the reserve, excepting that which faces the main Tarwongup Road, is well fenced.

No dams or buildings are located on the reserve, but the continued burning and grazing have decimated the understory of native flora to such effect as to create an

impression of parkland grazing area rather than bushland reserve.

### History of the Contine Reservation

The land in the district was opened for selection in 1903 and the river flats of rich loam were quickly taken up. The area comprising the reserve was originally gazetted as a State Forest in December, 1934.

There has been some leasing of grazing rights, particularly in the Bradford block, which is poison-plant free. Apiary sites are located in the area and timber cutting has taken place and a considerable footage of mature trees has been removed. Mallet bark leases have been granted with resultant pruning and thinning of the mature stands of this timber.

There is no doubt that the area is liable to alienation at the present day. Local opinion would be in favour of this; farmers aver that the reserve harbours vermin and should be alienated and cleared as soon as possible. As far as could be seen, neighbouring farmers have made no attempt at conservation on their own holdings by preserving nature strips. In recently cleared land, all timber had been bulldozed.

Much of the reserve has been applied for as farming land, and it seems much political influence has been brought to bear on the Forests Department to release the area.



History of the Highbury Reservation

The land in this district was opened for selection in 1911, but the bulk of the land surrounding the reserve blocks has been cleared only in the past three years.

The area comprising the reserve was originally gazetted as State Forest in September, 1935. Reserve 19105 and 19107 were gazetted as State Forests on November 16, 1928.

Much grazing and burning has occurred in the blocks with the result that the understory native vegetation has been virtually totally denuded and replaced by grasses.

Apiary sites have been leased and are still in use. Timber cutting has removed many mature trees, especially in the Ashby block, which has been very heavily cut recently.

A local farmer states that the south-east part of the Ashby block has already been alienated. He says it has been surveyed, fenced and cleared. Another portion on the north side of the same block has, he declares, been surveyed preparatory to clearing. It is quite obvious that many farmers along the Tarwongup road wish to obtain land in the reserve.

General interest is expressed by a few local people in bird conservation. All with whom the matter

was discussed intimated that they would not destroy native fauna. Some are planting native trees.

Although the freshly cleared country has been bulldozed, some timber has been left standing. Conversely, many doubt the value of the reserve as a fauna reserve, pointing out reasonably enough that it is pointless creating a fauna reserve if there is no fauna in it.

Method of Survey

At Contine the survey was carried out over a period of sixteen days from 9.15 a.m. on November 25, 1964, to 12.30 p.m. on December 11, 1964. On two days during this time by Mr. J.A.W. Kirsch, U.S. National Foundation Fellow at the Zoology Department, University of Western Australia, assisted with the survey.

In the survey of the Highbury area the complete field work was done without assistance. It was commenced at 5.30 p.m. on February 2, 1965, and completed at noon on February 12, 1965, when the work was interrupted owing to a field mishap.

Dr. W.D.L. Ride outlined the programme and assisted in writing up the report.

Initially each reserve was traversed by vehicle to discover access to trapping areas. Trap-lines were established as a result. Positions of the trap-lines are shown in the figures.

Finally, each block was systematically covered by foot patrol to obtain a record of the presence of or signs of mammals.

Burrows were dug out, hollow logs and trees examined, mist nets were set at night for Chiroptera (positions shown in figure), some shooting was done to obtain large mammals

and bats in flight and traps were set. Trap success, even in the mammal-rich area of Contine, was low being 1.15 per 100 trap night (total trap nights, 960; total trapped mammals, 11). Trap results at Highbury were very low being 0.167 per 100 trap nights (total trap nights, 600; total trapped mammals, 1). Bait used in traps was mainly a Universal Bait based upon that used by the Archbold Expeditions of the American Museum of Natural History, i.e., a mixture of peanut paste, bacon, raisins, oatmeal, pollard, soy oil and aniseed oil, but other baits such as animal liver, parrot bodies, fruit and living insects were used as well. For comparison of other trap success data see Ride and Tyndale-Biscoe (1962, p.55, Table 7).

Mist-netting results at Contine were as follows. 2 nets were used 20' x 3', i.e. 120 sq.ft. per night. Capture average 1.75 per 100 sq.ft. nights over the 12 nights of netting.

It was observed that all bats captured in this way were netted in the lowest 9" of the net. If only the effective area of net is considered, capture average would be 7.00 per 100 sq.ft.nights.

Mist nets set at Highbury were destroyed by a flock of Maned Geese passing through the set nets.

Thirty-five mm colour transparencies were taken of the major habitat areas and of the anthropological site. These are the property of the joint collection and are housed in the W.A. Museum.

The Fauna: Results of the Survey

(a)

MAMMALIA

MONOTREMATA, Tachyglossidae

(1) Tachyglossus aculeatus

Echidna.

Contine

No specimens collected and none seen.

Tracks and scats were found in breakaway laterite cliffs and termite mounds which had been dug recently were seen. Forest Department workers have seen "porcupine" within the last year in the reserve.

Highbury

No specimens collected or seen and no recognisable evidence of recent occupation.

MARSUPIALIA, Macropodidae, Macropodinae.

(2) Macropus giganteus ocydromus

Grey Kangaroo.

Contine

Collected 2 ♂♂ (preserved as skin and skull, skull)  
1 ♀ (preserved as skull)

This species was spread throughout the area and could be found readily in dryandra thickets on the edge of Wandoo in daylight or in open burnt country at night. Eighteen individuals were seen, mostly in groups of 2 or 3, although some of these could have been resightings. All specimens collected were shot and were in fat condition. The female did not have young in the pouch. Little time was spent in gathering data of this well known species.

From my experience here and in other places I believe that the Grey Kangaroo prefers open forest.

Highbury

No specimens collected.

About 12 individuals were seen, singly and in groups of 2 or 3, although some of these could have been resightings. Most of the sightings were made at dawn in thick Casuarina areas. The extreme wariness of these animals was locally explained by intensive hunting for local carcass sales as pet food.



(3) Macropus irma

Brush Wallaby

Contine

Collected 2 ♂♂ (preserved as skins and skulls).

Nine individuals were sighted, all solitary. Some of these could have been resightings.

This species appeared to favour the Jarrah areas of the reserve although one was sighted in Brown Mallet and another in a dense young Wandoo thicket.

The animals collected were fat but no young were in the pouch. Both were shot.

Highbury

No specimens collected.

One individual was seen in a patch of Dryandra on the edge of Jarrah forest.

(4) Macropus eugenii

Tamar.

Contine

Collected 2 ♂♂ and 2 ♀♀ (preserved as study skins and skulls).

The main habitat of this species in the Reserve appears to be the thickets of Brown Mallet but tracks were present in all Casuarina stands. Thus, of 10 individuals seen, only one was in Casuarina regrowth; the others were in Brown Mallet. The four collected were shot along fire-breaks at night in a spotlight.

All were fat but were heavily infested with lice and ticks (specimens collected).

Highbury

No specimens collected.

A possible sighting was made at early dawn in a Casuarina thicket but no further evidence was found.

Macropodidae, Potoroinae

(5) Bettongia penicillata

Woolie

Cantine

Collected 2 ♂♂ (1 skin and skull, 1 spirit),  
3 ♀♀ (2 skins and skulls, 1 spirit).

Thirteen individual sightings were made by spotlight and all specimens collected were shot. The animal was not seen by daylight. All animals seen were in or on the edge of Brown Mallet country and although tracks and specimens occur in both Wandoo and Powderbark areas I am of the opinion that it feeds mainly in Mallet. The distinctive scratch area where spiders and other insects have been dug are quickly distinguished from both the flat disc-like clearings of M. irma and the deep pits of Isoodon obesulus by the even distribution of spoil around the edges of the scratches and the rather broad angles of the pit sides, unlike the steeply angled sides of I. obesulus pits.

All specimens had much 'subcutaneous' fat and the two females which were adults carried pouch young.

Highbury

No evidence was found of this species, in the reserve.

(6) Bettongia lesueuri

Boodie.

Contine

These were reported to me by two different Forests Department workers who described an animal "like a small Woilie but with smaller ears, ratlike, and a white tip to the tail." On the edge of the central dam I found tracks very reminiscent of the Barrow Island B. lesueuri and am convinced they were not young B. penicillata or M. eugenii.

H ighbury

No evidence was found of the residence of this species in the reserve.

## Phalangeridae, Phalangerinae

(7) Trichosurus vulpecula

Brush Possum.

Contine

Collected 3 ♂♂ (3 skulls and skins), 3 ♀♀ (2 skulls and skins, 1 spirit) and 3 picked up skulls.

The Brush Possum is the most common mammal of the reserve being observed in every kind of habitat. Tree-living in Wandoo and Jarrah country, it lives in rock crevices and hollow logs in Mallet and Mallee areas. Twenty-six individuals were seen, including one in an open paddock feeding among rabbits. Specimens were either shot or trapped using the standard box type live trap or "cat" trap as described by Dunnet (1956). Baits varied from Kangaroo liver to fruit and vegetables and the Universal Bait. One was caught on bread soaked in fish oil from a sardine tin.

All specimens taken were so fat as to be greasy.

Highbury

Collected 1 ♂ (skin and skull).

This specimen was tracked to a hollow Wandoo where it was trapped in a "cat" trap using apple and Universal Bait. No further evidence was seen following its capture. The specimen appeared healthy but had no surplus fat.

## Phalangeridae, Tarsipedinae

(8) Tarsipes spencerae

Noolbenger.

Contine

Collected 1 ♀ (skin and skull).

This specimen was brought to me by a Forest Ranger who caught it while burning fire breaks on the northern edge of the reserve. I saw no specimens although I searched in flowering areas of Banksia sphaerocarpa and Dryandra spp. A close examination was also made of some thickets of flowering Calothamnus quadrifidus which were later burnt in a Forests Department controlled burn, but no animals were seen.

Highbury

No evidence of this species in the reserve.

Peralamoidea, Peramelidae

(9)            Isoodon obesulus

Quenda.

Contine

Collected 1 ♂ (skin and skull).

Eight individuals were observed in the Wandoo and Mallet areas. All were observed by spotlight, most were seen in the areas adjoining exposures of granite. Pits dug by these animals were very common in the loamy creek flats.

Highbury

No evidence of this species was found in the reserve.

Dasyuridae, Phascogalinae

(10) Phascogale calura

Redtailed Wambenger.

Contine

Collected 4 ♂♂ and 1 ♀ (4 skins and skulls, 1 mounted).

Although traps baited with Universal Bait, fruit, meat, and living insects were placed in a variety of localities this species was only trapped in the mixed stands of Mallet and Wandoo which occurs on the edge of the Mallet plantation. I saw one at night in the spotlight in regrowth Wandoo where it was hopping on the forest floor. It avoided the big trees and climbed a dry Wandoo sapling about 12 ft high and 1 inch thick. It jumped from this and hid under a Dryandra formosa. Flushing, it went up another little Wandoo ignoring the plentiful big trees in the area. No reflection from the tapetum of the eye was seen until it climbed the tree. At all times it kept the trunk of the tree between the light and itself and ran equally well up or down the tree.

All animals were fat. None of the males displayed the bright tail colour which gives rise to the vernacular name.

Highbury

No evidence of this species was found in the reserve.



(11)        Antechinus flavipes

Mardo.

Contine

No specimens collected and none seen.

Forests Department workers identified this animal from colour slides which I showed to them and said that it had been seen in the reserve within the last year. I had previously collected a series at Mooterdine in identical country with an apparently identical fauna. Mooterdine is about 6 miles west from Contine.

Highbury

No evidence of this species was found in the reserve.

Dasyuridae, Myrmecobiinae

(12)        Myrmecobius fasciatus

Numbat.

Contine

Collected 1 ♂ (skin and skull).

The specimen collected was cut out of a hollow Wandoo log which had the appearance of being frequently occupied. It had a damaged front paw which did not appear to diminish its speed in locomotion. Four animals were seen, all in open Wandoo country with a ground cover of Gastrolobium.

Highbury

No evidence of this species was found in the reserve.

Eutheria, Chiroptera, Vespertilioninae

(13) Pipistrellus tasmaniensis

Contine

Collected 3 ♀♀ (2 skins and skulls, 1 spirit).

These were all collected in mist nets over dams at night. This bat can be heard in flight, its wings making a very noisy rushing sound. The specimens collected are the first records outside the Karri (Eucalyptus diversicolor) country near Margaret River and are a wide extension of range as well as a valuable addition to the limited collection of this species in W.A.

Highbury

No evidence of this species was found in the reserve.

(14) Chalinolobus gouldi

Goulds Wattle Bat.

Contine

Collected 3 ♂♂ (2 skins and skull, 1 spirit) and 16 ♀♀, (9 skins and skull, 7 spirit).

This bat was observed in all habitats flying at dusk. It seems to prefer definite flyways, such as roads and firebreaks, rather than the canopied forest. In my observations this species generally flies at 30 to 40 ft while hawking and reacts immediately to a thrown stone by diving after it, thus making it relatively easy to observe or collect. I also collected this species flying at dawn. Females were pregnant and foetuses were at a very advanced state. Specimens were collected by shooting in flight or in mist nets over the dams in the reserve.

Highbury

Collected 4 ♀♀ (2 skins and skulls, 2 spirit).

These specimens were located at dusk in open canopy Wandoo and at night in Wandoo forest while using a spotlight. All were collected by shooting.

(15)            Chalinolobus moria

Contine

Collected 1 ♂ (spirit) and 9 ♀♀ (5skins and skull, 4 spirit).

This bat was not collected flying at dusk or dawn but all specimens were netted over the two dams in the reserve. Observations indicate it prefers more heavily forested country than C. gouldi and it is most likely one of the bats that keep very close to the leaves while hawking. Females collected in an advanced state of pregnancy about the same foetal development as C. gouldi.

Highbury

No evidence of this species was found in the reserve.

(16) Eptesicus pumilis

Little Bat.

Contine

Collected 6 ♂♂ (4 skins and skulls, 2 spirit) and 1 ♀ (skin and skull).

One specimen (B1014) collected in a Casuarina huegeliana flyway was a dark normal form of E. Pumilis but the others collected in Wandoo and Mallet areas were paler in colour and appear to vary about the face and ears. No difference was discerned from field measurements. Dr. Ride (W.A. Museum) suggests that this paler form may be Pipistrellus regulus. Both forms were observed to fly very low, almost at ground level, while hawking. This species was mainly observed in the more densely forested portions of the reserve only three being seen in the open Wandoo. The specimens were collected by shooting and by mist-netting over water.

Highbury

Collected 1 ♂ (skin and skull).

This specimen, the only one seen, was collected by shooting at dawn in a mixture of Marri and Wandoo mature timber. It was flying very high near tree-tops, i.e. about 120 ft.

## Nictophilinae

(17) Nictophilus geoffroyi

Long-eared Bat.

Contine

Collected 1 ♂ (spirit) and 1 ♀ (skin).

Both specimens were collected in mist nets over water. I have seen these bats flying at dusk in the open flyways among Mallet. It is characterised by the big forward pointing ears and the very steady level flight unlike the erratic flight of other species I have observed.

Highbury

No evidence of this species was found in reserve.

## Molossidae

(18) Tadarida planicepsContine

Collected 1 ♂ (skin) and 1 ♀ (spirit).

One specimen was shot at dusk hawking above flowering Mallet, at least 100 ft in the air, where it was loudly 'squeaking' or 'pipping'. I have not previously heard a bat as vocal as this one in flight and none of my references mention it.

These two specimens almost doubled the known number of this species collected in W.A.

Highbury

No evidence of this species was found in the reserve.



Carnivora, Canidae, Caninae

(19) Canis familiaris

Dog or Dingo.

Contine

No specimens collected and none seen. The record is based on one set of tracks which were found on the southern edge of the reserve. These showed the splayed front toes of a true dingo. The Forests Department Ranger at Dryandra reports a dingo sighted in Contine reserve two years ago.

Highbury

No evidence of this species was found in the reserve.

(20) Vulpes vulpes

Fox.

Contine

No specimens collected and none were seen in the reserve area.

This animal was surprisingly rare in the reserve area, only one set of tracks being seen in a sandy patch on the edge of a paddock. However I destroyed 7 in open paddocks surrounding the area and have no doubt that they would affect the native fauna of the area. Gut content of those taken was fur and feathers with considerable amounts of chitinous material from reptiles and arthropods. No recognisable native mammal remains were found by me.

Highbury

Fresh scats of this species were noted on the northern block.

Felidae, Felinae

- (21) Felis catus  
Feral Cat.

Contine

Five specimens taken but none preserved.

This predator was common throughout the area as tracks in any soft ground testified. Six individuals were seen, of which five were shot. The gut content was, in each case, rabbit, bird and reptile remains with occasional arthropods especially centipedes. No evidence of native mammals was found in stomachs. In my experience domestic cats gone wild will kill but not eat small marsupials.

Highbury

Tracks of this species were found and one animal sighted in a Mallet grove.

Lagomorpha, Leporidae, Leporinae

(22) Oryctolagus cuniculus

Rabbit.

Contine

Although numerous on the fringes of the reserve very little evidence was seen of population in the heart of the reserve.

Highbury

Several individuals seen in granite area but intensive 1080 poisoning appears to have diminished the species. Many abandoned warrens and burrow were found.

Rodentia, Muridae, Murinae

- (23) Mus musculus  
Common Mouse.

Contine

I found small rodent tracks most like those of Mus musculus, in freshly turned earth on a fire break. A Kookaburra was seen to pick up a Mus musculus body on the road near Bradford block. Mice abound in the paddocks surrounding the reserve.

Highbury

Collected 1 ♀ (skin and skull).

This specimen was dug out of a burrow in a loamy flat on the edge of a semi-permanent pool in a creek bed. The pool had no surface water but the sub-surface was moist.

The fauna: Results of the Survey

(b) HERPETOLOGICAL SPECIMENS

These did not appear numerous in either reserve but a more specialised herpetological search should result in more species being collected.

(1) Trachysaurus rugosus

Bobtail.

Contine

This species was the most commonly observed throughout the entire range of habitat. Every day individuals were caught in cat traps preferring Universal Bait and apple to other baits such as liver and twenty-eight parrot.

Highbury.

This species not observed.

(2) Egernia kingi

King Skink.

Contine

This species was common in all habitats except sand influenced areas. It was observed to live in hollow logs, caves in breakaways and in clefts in granite.

Highbury

This species not observed.



(Place in left margin  
number of figures)

(4) Varanus gouldi

Racehorse Goanna

Contine

Tracks and specimens were seen in sandy areas. When flushed specimens ran up nearest tree. Gut content of collected specimen consisted of frogs and arthropods, especially tree crickets (Paragryllus sp.).

Highbury

This species not observed.

(5) Diplodactylus vittatus

Ghost Gecko.

Contine

This species was observed under exfoliated granite and inside hollow Wandoo branches.

Highbury

This species not observed.

(6) Amphibolurus ornatus

Rock Dragon.

Contine and Highbury

Common on every granite face in the area and living in exfoliated cracks which were lifting but not separated from the rock mass.

(7) Demansia nuchalis

Dugite.

Contine

The common snake of the area and the only species collected. The gut content of collected specimens included Trachysaurus rugosus, Varanus gouldi and Diplodactylus vittatus.

Highbury

One specimen seen but not collected.

(8) Hyla moorei

Green and Gold Tree Frog.

Contine

Collected around both dams in the reserve.

Highbury

This species was not observed.

(9) Crinia sp.

Contine

Collected around both dams in the reserve.

Highbury

This species was not observed.

- (10) Heleionorus albopunctatus  
Spotted Burrowing Frog.

Contine

This species collected while hunting mammals with a spotlight at night.

Highbury

This species was not observed.

(11) Heleioporus australiacus

Yellownosed Burrowing Frog.

Contine

This species collected while hunting mammals  
with a spotlight at night.

Highbury

This species was not observed.



The Fauna: Results of the Survey(c) BIRDS

These lists are not intended to be the complete avifauna of the reserves but are records kept of birds seen while I was engaged in other activities. The first list is of birds common to both reserves while the second is additional bird species found at Contine. No additional species were found at Highbury.

(1)

1. Common Bronzewing Pigeon
2. Maned Goose
3. Grey Teal (nesting, C.)
4. Wedge-tailed Eagle
5. Brown Hawk (nesting, C.)
6. Kestrel
7. Purple-crowned Lorikeet
8. White-tailed Black Cockatoo
9. Twenty-eight Parrot (nesting)
10. Frogmouth (nesting, C.)
11. Kookaburra
12. Tree Martin (nesting)
13. Grey Fantail (nesting)
14. Red-capped Robin
15. Golden Whistler
16. Black-faced Cuckoo-Shrike
17. Magpie-Lark
18. Weebill
19. Western Warbler
20. Yellow-tailed Thornbill
21. Black-faced Wood Swallow
22. Red-tipped Pardalote
23. Silvereye
24. Spinebill
25. Little Wattle-Bird
26. Pipit
27. Raven
28. Squeaker
29. Magpie (nesting, C.)

(2)

1. Quail
2. Mallee-Fowl
3. Brush Bronzewing Pigeon
4. Little Grebe
5. White-faced Heron
6. Banded Plover
7. Curlew
8. Black Duck
9. Mountain Duck
10. Goshawk
11. Whistling Eagle
12. Peregrine Falcon
13. Little Falcon
14. Smoker Parrot
15. Rosella (nesting)
16. Red-capped Parrot
17. Grass Parrot (Elegant Parrot)
18. Sacred Kingfisher
19. Rainbow-Bird (nesting)
20. Spotted Nightjar
21. Pallid Cuckoo
22. Golden Bronze-Cuckoo
23. Narrow-billed Bronze-Cuckoo
24. Welcome Swallow (nesting)
25. Fairy Martin (nesting)
26. Scissor-Grinder
27. Yellow Robin
28. Hooded Robin (?)
29. Western Shrike-Thrush (nesting, C.)
30. Brown Thornbill

(2)

31. Western Thornbill
32. Spotted Scrub-Wren
33. Splendid Wren
34. Dusky Wood-Swallow
35. Black-capped Sittella
36. Brown Tree-Creeper (nesting)
37. White-naped Honeyeater
38. Brown Honeyeater
39. New Holland Honeyeater
40. Singing Honeyeater
41. Grey Butcher-Bird
42. Crow

Anthropological InformationContine

A previously unrecorded Aboriginal stone arrangement was discovered. No others are recorded in the South-West Land Division except the one at Reynolds Hill, Jerramongup, which this resembles having the same repeating motif of raised circles. (see Figure 1)

Highbury

No evidence of Aboriginal culture was found.

DiscussionContine

Nearly all mammals collected or observed are to be expected in an area such as this, placed in the Wandoo belt and offering such a wide variety of habitats which are continuous and not isolated. The notable exception is the Pipistrellus tasmaniensis which was previously regarded as a wet area Karri habitat animal.

The collection of this species or the presence of Tadarida planiceps should each be a valid reason for making the area a fauna reserve, but the variety and range of mammalian fauna in the area plus the numbers of other groups should completely verify this impression.

The time factor involved in making the mammal collection of this survey precluded my making a thorough collection of the reptiles and birds. Although some areas within the reserve appeared barren, no environment could be said to be more mammal rich than any other.

The anthropological site is the second known of its type in South-western Western Australia, and is itself worthy of a reserve as so little is known of these extremely vulnerable stone arrangements.

DiscussionHighbury

Considering the physical habitat and the general similarity between the two reserves and striking difference in fauna results is surprising. The major factors involved in the lack of fauna at Highbury appear to be:

- (a) The isolation of each reserve block which leads to scorching due to temperature rise following clearing of surrounding farmland.
- (b) The apparent grazing and burning which has to a large degree removed the understory of native vegetation.
- (c) The replacement of native vegetation with exotic grasses.
- (d) The human interference particularly in timber felling and to a lesser degree, in fauna shooting especially Macropus ocydromus.

By the destruction of the micro-habitat as a result of these factors the majority of the fauna which could be expected to occur in the area ceased to be. It is yet to be discovered what effect introduced bee colonies have on native fauna. By the removal of gross amounts of nectar they could compete with all native nectar-eaters very successfully.

I can see little value in this area as a fauna reserve unless a large scale flora and fauna stocking programme was intended.