Report on Antechinus apicalis Stage A.

PURPOSE. To establish the biogeography of the Cheyne Beach area where Morecombe and later Morecombe and Ride collected the animal alive.

METHOD. (a) The actual trapping area was located and extensively searched and trapped using breakback traps, Sherman, Elliott, cage and pit traps. Searches were made day and night.

(b) Simultaneously a series of botanical surveys were made in the form of transect and quadrat and plants not positively known were collected for later identification at the Herbarium. (Mr A. George).

RESULTS. The trapping results may be seen from the accompanying table. Hand catching was of little value being restricted to reptiles and Sminthopsis murina and Tarsipes spenserae. The reptiles taken by all means are listed as is a bird and a mammal list for the area. These lists can undoubtedly be supplemented by the work of Storr and Main but the prime aim of the survey was to establish the reason for the existence of Antechinus apicalis in a very restricted area.

AMPHIBIA

Hyla moorei
Hyla adelaidensis
Heleioporus psammophilus or
Heleioporus eyrei
Crinia georgiana

MAMMALIA

Macropus fuliginosus
Sminthopsis murina

Tarsipes spenserae
Mus musculus
Felis catus
Eptesicus pumilis

REPTILIA

Phyllodactylus marmoratus
Diplodactylus vittatus
Delma fraseri
Tiliqua occipitalis
Tiliqua luctuosa (Egernia luctuosa)
Tiliqua rugosa
Egernia nitida
Egernia kingii
Ctenotus pulchra
Ctenotus bos
Lerista microtis
Morethia lineoocellatus
Leiolepisma trilineatum
Varanus gouldi
Notechis scutatus occidentalis
Brachyaspis curta

BIRDS.

Kestrel	*Sooty Oystercatcher
Brown Quail	*Pied Oystercatcher
*Silver Gull	Bronzewing
*Pacific Gull	Whitetailed Black Cockatoo
*Crested Tern	Rock Parrot
Tawny Frogmouth	*Welcome Swallow
Pipit	Blackfaced Cuckoo Shrike
Splendid Wren	Southern Emu Wren
Brown Thornbill	Spotted Scrub Wren
Grey Fantail	Red tipped Pardalote
Silvereye	Brown Honeyeater
Spinebill	Tawny Crowned Honeyeater
New Holland Honeyeater	White Cheeked Honeyeater
Little Wattle Bird	Red Eared Firetail Finch
Grey Butcher Bird	Raven

* Denotes passing over, not in occupation of survey area.

MIST NET RESULTS Jan	29	30	31	TOTAL
New Holland Honeyeater	22	15	9	46
White Cheeked Honeyeater	10	21	18	49
Spinebill	2	2	2	6
Tawny Crowned Honeyeater		4	1	5
Brown Honeyeater		1		1
Silvereye	1		1	2
	35	43	31	109

2 mist nets were set in survey area for 3 full days.

BOTANY.

Major Area Dominants 8ft. Banksia baxteri, Banksia coccinea, Banksia attenuata.

Dominants 4 ft. Agonis hypericifolia, Banksia baxteri, Banksia attenuata, Banksia coccinea, Beaufortia micrantha, Jacksonia spinosa, Phyllota barbata, Agonis lineatifolia, Adenanthos cuneata, Cassytha sp.

Dominants Low Levels. Dasypogon bromeliaefolius, Leucopogon (4 species), Hypocalymma strictum, Stylidium scandens, Isopogon longifolius, Melaleuca striata, Calothamnus gracilis, Petrophila rigida, Lysinema ciliatum, Andersonia caerulea, Hibbertia triandra, Daviesia polyphylla, Daviesia juncea, Anarthria gracilis, Leptocarpus sp, Johnsonia lupulina, Burchardia umbellata, Casuarina humilis, Pimelea longiflora, Pimelea rosea, Lobelia tenuiflora, Hakea ruscifolia, Petrophila longifolia, Lepidosperma sp, Haemodorum spictum.

COASTAL STRIP Dominants 8 ft. Agonis flexuosus, Oxylobium lanceolatum, Lepidosperma gladiatum, Sollya fusiformis, Acacia decipiens, Spyridium globulosus, Rhagodia baccata, Banksia occidentalis, Hardenbergia comptoniana.

Dominants 4 ft & below. Lepidosperma gladiatum, Scirpus nodosus, Burtonia scabra, Muehlenbeckia ~~sag~~ adpressa, Beaufortia micrantha, Melaleuca striata, Agonis linearifolia.

HILLSIDE AREA. Wind pruned nothing above 6 ft, mostly 2 ft. Melaleuca striata, Acacia cochlearis, Acacia myrtifolia, Eucalyptus marginata, Eucalyptus platypus, Nuytsia floribunda, Eucalyptus angulosa, Agonis flexuosus, Agonis hypericifolia, Adenanthos cuneata, Olex phyllanthi, Banksia coccinea, B. attenuata, B. baxteri, B. grandis, B. prostrata, B. repens, B. violacea, Synaphaea polymorpha, Dryandra cuneata, D. arctotidis, D. baxteri, Hakea cucullata, H. ceratophylla, H. trifurcata, H. lasiantha, Beaufortia anisandia, Beaufortia micrantha, Astartea fascicularis, Grevillia fasciculata, Oxylobium coriacium, Gahnia trifida, Isopogon formosus, Xanthorrhoea.

This analysis shows a floral composition that allows a nectar flow all year round. This in turn allows an insect and bird population likewise.

The area under discussion is unique in that it has not been burned because of the roads acting as firebreaks for the area and because the wind pruned surrounds do not allow a very fierce fire to burn.

DISCUSSION. (1). The area is very limited in size due to surrounding country being burnt regularly.

(2). The area is composed of a floral composition which enables a nectar flow all year round. Some of the flow is copious and will support a large population of insects. This in turn allows insectivorous fauna, especially that which supplements its diet with nectar, to establish a good foothold.

(3). As a result the area is rich in small mammals. I used a massive trap and release technique to establish what lives in the area. The last 3 trap nights were almost negative indicating that I may have cleared the area out. Released animals will certainly move back into the area as they were released only 50 yards from the site.

(4). In stage B of this operation a search will need to be made for Crown Land with a similar botanical complexes. Having found such areas they will need to be trapped intensively to determine the presence of the faunal complex.

Such areas could exist anywhere on the south west coastal corner as far north as Murchison River and as far east as Esperance if Banksia species are the key. However should it be specific Banksias e.g. Banksia occidentalis then the search will be considerably narrowed to the area from Augusta to Esperance

W.H. BUTLER.

TABLE I TRAP RESULTS.

	Elliotts	Breakback	Sherman	Cage	Pit	Total
JAN 29	3/20	4/26	2/4	0/1	0/0	9/51
30	4/26	1/26	0/4	1/3	0/0	6/59
31	5/30	1/26	1/4	1/3	1/3	9/66
FEB 1	5/35	5/26	1/4	1/3	1/3	13/71
2	5/35	1/6	1/4	0/3	2/5	9/53
3	0/35	1/6	1/4		6/5	8/50
4	0/35	1/6	1/4		0/5	2/50
	22/216	14/22	7/28	3/13	10/21	56/400

TABLE II TRAP RESULTS BY SPECIES.

	Sminthopsis	Tarsipes	Rattus	Mus	Reptiles	
29 JAN						
Elliott	1		2			3/20
Breakback			2		2	4/26
Sherman				1	1	2/4
~~Gege~~ Cat						0/1
30 JAN						
Elliott	1	1	1		1	4/26
Breakback				1		1/26
Sherman						0/4
Cat					1	1/3
31 JAN						
Elliott	1		2	1	1	5/30
Sherman				1		1/4
Breakback				1		1/26
Cat			1			1/3
Pit		1				1/3
1 FEB						
Elliott	1		3	1		5/35
Breakback				2	3	5/26
Sherman				1		1/4
Cat			1			1/3
Pit		1				1/3
2 FEB						
Elliott		1		1	3	5/35
Breakback				1		1/6
Sherman				1		1/4
Cat						0/3
Pit					2	2/5
3 FEB						
Elliott						0/35
Breakback				1		1/6
Sherman				1		1/4
Pit	1	1			4	6/5
4 FEB						
Elliott						0/35
Breakback				1		1/6
Sherman					1	1/4
Pit						0/5
TOTALS	5	5	12	15	19	56/400