DEPARTMENT OF
FISHERIES AND WILDLIFE.

DISTRICT OFFICE
PO Box 316
KARRATHA WA 6714
Telephone 85 1427

Enquiries

Supervising Wildlife Officer
Dept Fisheries & Wildlife
108 Adelaide Terrace
PERTH WA 6000

Your Ref

Our Ref

Re: Patrol of Offshore Islands - PV Phillip King
27th to 29th July 1981

With Reserves Officer R Sokolowski, I accompanied Inspectors Kirk, Saw and Mutter on board the PV Phillip King on a patrol of island reserves out from Onslow.

We had intended to depart from Onslow around midday on Sunday 26th July, but due to non availability of fuel for the vessel, our departure was delayed until Monday morning 27th July.

We departed Onslow and proceeded direct to Hermite Island in the Montebello group, where we arrived mid afternoon. Went ashore with R Sokolowski, carried out fauna and vegetation survey on southern portion of Hermite Island.

We found that the vegetation on the island had re-established itself quite well after the fire on the island about six years ago, especially Triodia pungens, on the ridges (limestone) and Acacia corriaceae on the sandy areas.

Very little bird life was observed, (see appendix "A") and no reptilian fauna was observed at all. Numerous cat scats and tracks were observed. No cats were actually seen.

On Tuesday 28th July, a strong wind warning was current for coastal waters Wallal to Exmouth Gulf, strong easterly winds 20 to 25 knots. Wind gusts of up to 35 knots were experienced at the Montebello islands during the morning. Consequently we were weather bound in this island group. A further survey of vegetation and fauna was carried out on the middle section of Hermite Island, when R Sokolowski fell over and injured himself on the island. After returning him to the Patrol Vessel, and administering first aid, Inspector Kirk and myself took the vessel's dinghy to the North end of the island group where we picked up medical supplies from the charter vessel Kalinda (A.F.Z. observer vessel sheltering from weather) for R Sokolowski.

On Wednesday 29th July, the weather had abated, and we departed for Thevenard Island. At Thevenard Island (Reserve No 33174), went ashore with R Sokolowski and Inspector R Kirk. Conversed with Manager of Mackerel Island Holiday Resort and inspected the resort lease area. (See report on Thevenard Island by Reserves Officer R Sokolowski. Photocopy appendix "B" without photographs).

We returned to Onslow on the evening of 29th July in the PV Phillip King, and I returned to Karratha with R Sokolowski on Thursday 30th July.

It was unfortunate that the adverse weather conditions and the unavailability of fuel on Sunday 26th July prevented us from visiting other Island Reserves in the area.

Appendices

"A" Fauna and Flora species observed on Hermite Island.

"B" Inspection report "Thevenard Island" Reserve No 33174.

"C" Fauna species observed on Thevenard Island Reserve No 33174.

"D" Inspection report "Hermite Island".

Forwarded for your information.

P PENNINGS
DISTRICT WILDLIFE OFFICER
14th August 1981

App

PP:cc

APPENDIX "A"

Fauna and Flora observed on Hermite Island

Fauna

3	Reef Heron
5	Osprey
2	Little Pied Cormorant
1	Pipit
2	Nankeen Kestrel
3	Welcome Swallow
20	Silver Gull
9	Crested Tern
3	White Breasted Woodswallow
1	Spotted Harrier
1	Sacred Kingfisher
1	Brown Honeyeater

Flora

Mimosaceae	Acacia - gregorii
	" - bivenosa
	" - corriacea
Tiliaceae	Corchorus walcottii
Moraceae	Ficus platypoda
Capparidaceae	Cleome viscosa
	Capparis spinosa
Fabaceae	Canavalia maritima
	Rhynchosia minima
Boraginaceae	Trichodesma zeylanicum
Chenopodiaceae	Salsola kali
	Rhagodia sp
Solanaceae	Dubosia hopwoodii
Verbenaceae	Avicennia marina
Rhizophoraceae	Rhizophora mucronata
Amarantaceae	Ptilotus exhaltatus
Graminaea	Triodia pungens
	Spinifex longifolius
	Sporobolus virginicus
Caesalpinaceae	Cassia sophera
Goodeniaceae	Scaevola globulifera
	" spinescens
	" anchusifolia

DEPARTMENT OF FISHERIES AND WILDLIFE

Western Australian Wildlife Research Centre

Mullaloo Drive, Woodvale, W.A. 6026. P.O. BOX 51, Wanneroo, Western Australia 6065. Phone 405 1555 Area Code 09

RESERVES OFFICE
DEPT FISHERIES & WILDLIFE
PO BOX 316
KARRATHA WA 6714

RO/18/81

Chief Wildlife Research Officer
Wildlife Research Centre
PO Box 51
WANNEROO WA 6065

INSPECTION REPORT

Hermite Island - Montebello Group July 27th/28th 1981

An inspection was carried out on Hermite Island on July 27th and July 28th, 1981 having been transported to this island in the P.V. Phillip King from Onslow.

I enclose two sets of photographs depicting the topographic features and general ground cover over the southern half of this island. There are signs of an earlier fire and this is particularly noticeable in the valley areas which display poor regeneration in the species "Triodia pungens". The island has a healthy appearance with a diverse plant community which appears to be the general pattern throughout.

The Triodia colonizes all the limestone ridges and slopes and is the dominant species. The depression and valley areas have mixed plant communities and this is particularly noticeable in the sheltered locations.

The calcareous sands support the larger shrubs although there is a high mortality in plant species which I believe can be attributed to excessive leaching of the seasonal rainfall. This particular area favours propagation of Salsola kali as the dead material of this plant was much in evidence.

The D.W.O. Mr Peter Pennings and myself worked together on the 27th when we appraised the general ground cover of the spinifex Triodia pungens. The results did not produce a regular and consistent pattern and this is attributed to ground profiles and their exposure to seasonal weather patterns. Without doubt the Triodia is in a healthy condition and we came upon vigorous regrowth in all areas except those having deep calcareous sand depositions.

From observations it is apparent that the feral cat population is healthy as "scats" were on all walk tracks, this may be

/2

the reason for negative sightings of reptilian fauna.

There were a few birds although the prevailing 25-30 knot E.S.E. winds were not the ideal conditions for birds.

I conclude by inviting your attention to my appendix A which details records of this visit.

R E S SOKOLOWSKI
RESERVES OFFICE
DEPT FISHERIES & WILDLIFE
KARRATHA

18 August 1981

RES:cc

Encl

c.c. The D.W.C. Karratha.

Triodia Ground Cover - Termite Mound. 27 [illegible]

AG. Limestone Ridges and Slopes.

	Ground Cover	Average	Triodia Ht Ht.	Area.
Exposed ridges.	20-40%	30%	100-200mm.	[illegible]
Exposed Slopes.	40-60%	30%	200-250mm.	.75m-.75m.
Sheltered areas.	60-80%	70%	200-300mm.	1m-1m.

AB. Valleys and Flats.

Calcareous valleys	5-10%	5%	400-500mm	1m-1m.
Calcareous flats.	10-20%.	15%	500-700	1.2m-1.2m.

AC. General Comments.

Evidence of fire in all areas. The shrub regrowth is pronounced on this is particulary observed in the valley areas. There is a light fuel present in depression areas which is an accumulation of dead spinifex and Calcola leaf.

There are very large clumps* of Triodia which have obviously survived the earlier fire and these are most noticable along the Eastern side of the island.

* Height - .8-1m Spread - 1.8m x 1.8m

End

FLORA

MIMOSACEAE	Acacia - gregorii " - bivenosa " - corriacea
TILIACEAE	Corchorus walcottii
MORACEAE	Ficus platypoda
CAPPARIDACEAE	Cleome viscosa Capparis spinosa
FABACEAE	Canavalia maritima Rhynchosia minima
BORAGINACEAE	Trichodesma zeylanicum
CHENOPODIACEAE	Salsola kali Rhagodia sp
SOLANACEAE	Dubosia hopwoodii
VERBENACEAE	Avicennia marina
RHIZOPHORACEAE	Rhizophora mucronata
AMARANTACEAE	Ptilotus exhaltatus
GRAMINEAE	Triodia pungens Spinifex longifolius Sporobolus virginicus
CAESALPINACEAE	Cassia sophera
GOODENIACEAE	Scaevola globulifera " spinescens anchusifolia.

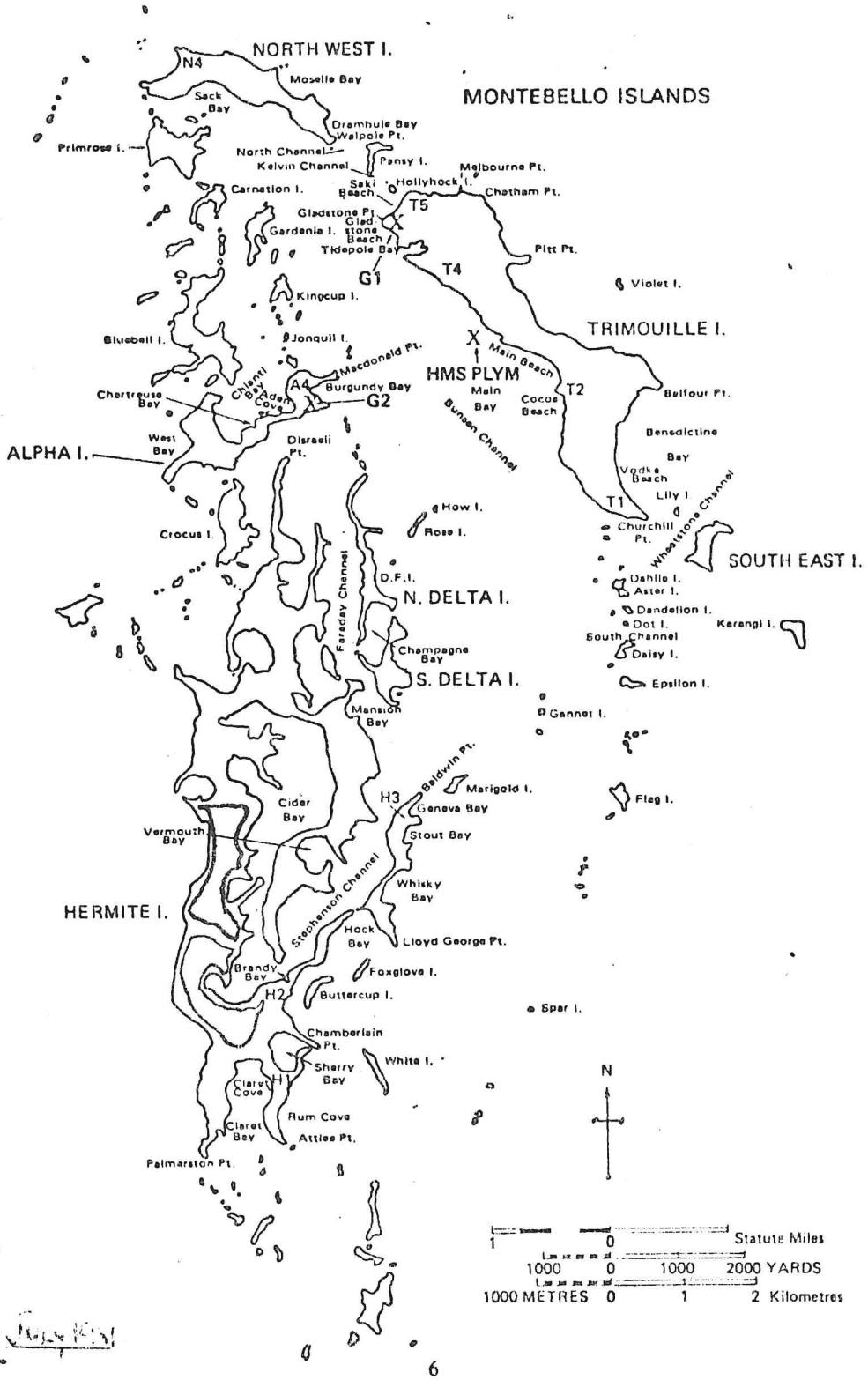
SEA BIRDS

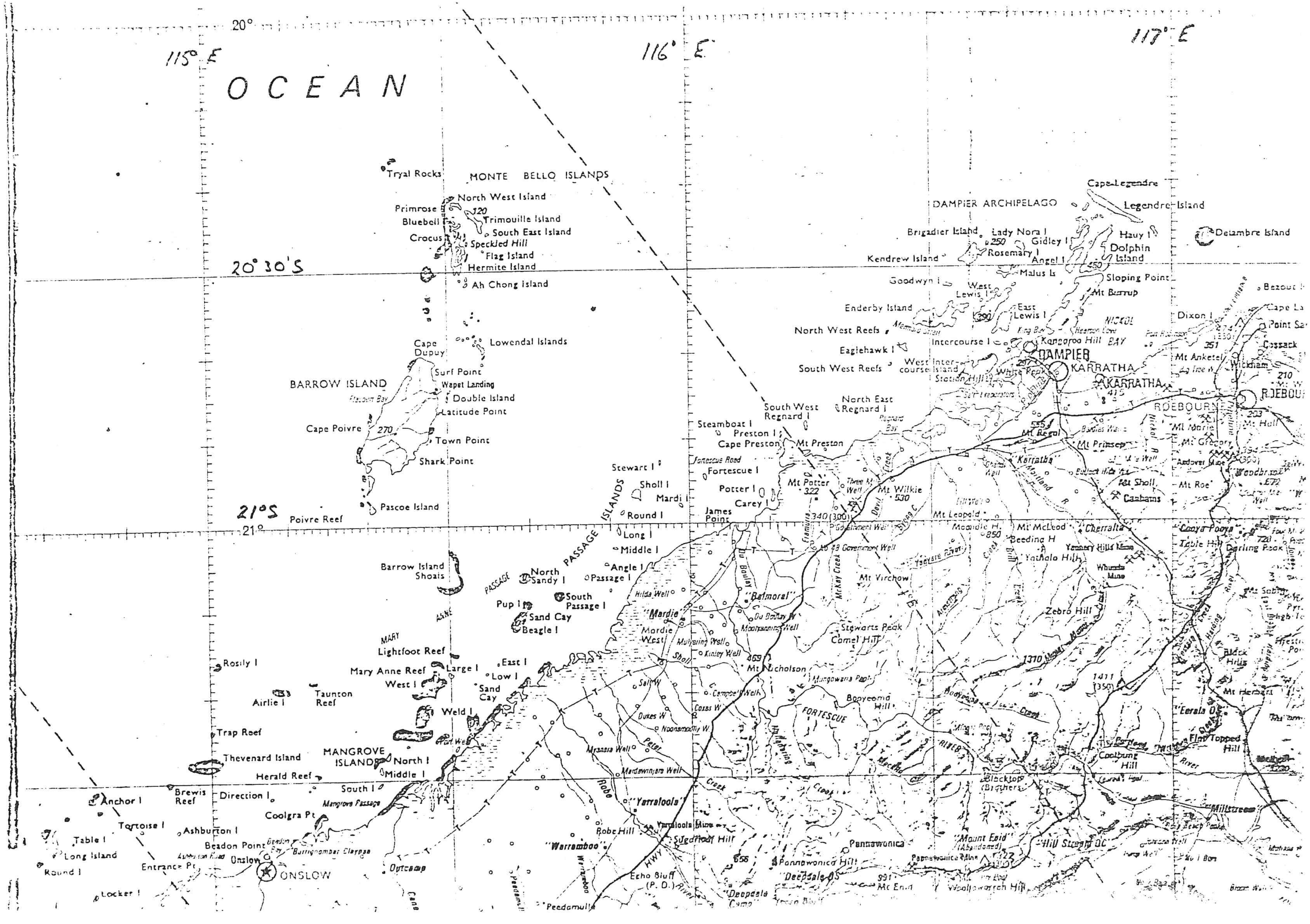
Pied Cormorant
Reef Heron
Osprey
Sooty Oystercatcher
Crested Tern
Silver Gull

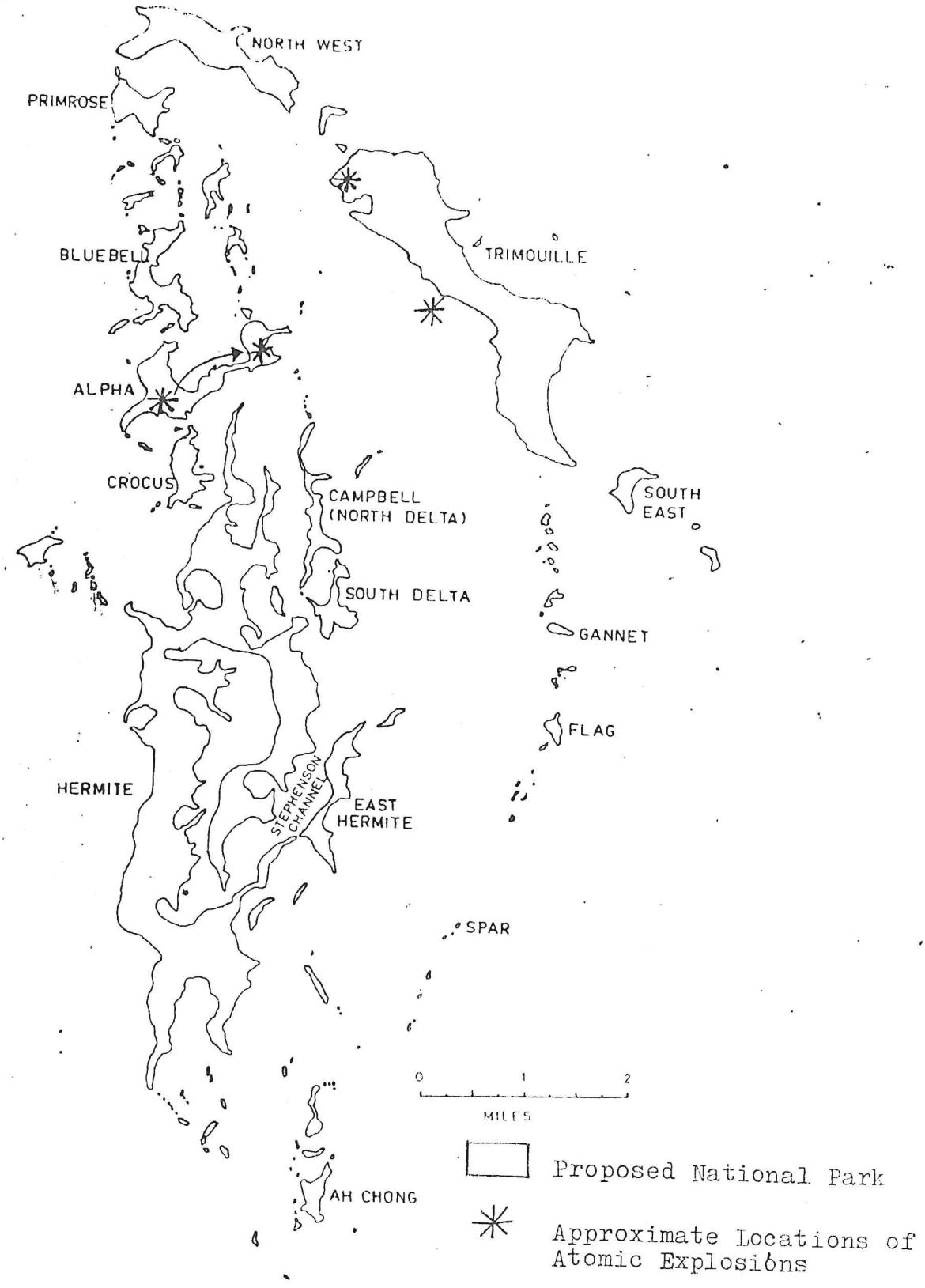
LAND BIRDS

White Breasted Wood Swallow
Welcome Swallow
Australian Pipit
Sacred Kingfisher
Spotted Harrier
Kestrel
Brown Honeyeater

Figure 1. Map of Monte Bello Islands. (x Nuclear weapons test site)




20°
115° E
116° E
117° E
OCEAN
20° 30'S
21°S
21°
Tryal Rocks
MONTE BELLO ISLANDS
North West Island
Primrose
Bluebell
Crocus
Trimouille Island
South East Island
Speckled Hill
Flag Island
Hermite Island
Ah Chong Island
Lowendal Islands
Cape Dupuy
Surf Point
Wapet Landing
Double Island
Latitude Point
BARROW ISLAND
Cape Poivre
Town Point
Shark Point
Pascoe Island
Poivre Reef
Barrow Island Shoals
PASSAGE ISLANDS
Stewart I
Sholl I
Mardi I
Round I
Long I
Middle I
Angle I
Passage I
North Sandy I
South Passage I
Pup I
Sand Cay
Beagle I
Lightfoot Reef
Mary Anne Reef
West I
Large I
East I
Low I
Sand Cay
Weld I
Rosily I
Airlie I
Taunton Reef
Trap Reef
Thevenard Island
MANGROVE ISLANDS
North I
Middle I
South I
Herald Reef
Brewis Reef
Direction I
Anchor I
Tortoise I
Ashburton I
Table I
Long Island
Round I
Locker I
Coolgra Pt
Beadon Point
Entrance Pt
Onslow
ONSLOW
Mangrove Passage
Outcamp
"Warramboo"
Robe Hill
"Yarraloola"
Echo Bluff (P. O.)
HWY
Robe
Peedamulla
Mardie
Mardie West
"Balmoral"
Mt Nicholson
FORTESCUE
Booyeemo Hill
Stewarts Peak
Camel Hill
Mt Virchow
Pannawonica
Pannawonica Hill
Deepdale
Mt Enid
DAMPIER ARCHIPELAGO
Cape Legendre
Legendre Island
Delambre Island
Brigadier Island
Lady Nora I
Gidley I
Rosemary I
Angel I
Malus Is
Hauy I
Dolphin Island
Sloping Point
Mt Burrup
Kendrew Island
Goodwyn I
West Lewis I
East Lewis I
Enderby Island
North West Reefs
Eaglehawk I
South West Reefs
Intercourse I
West Intercourse Island
Kangaroo Hill
DAMPIER
KARRATHA
NICKOL BAY
Dixon I
Mt Anketell
Wickham
Cossack
Point Samson
Cape Lambert
Bezout I
ROEBOURNE
North East Regnard I
South West Regnard I
Steamboat I
Preston I
Cape Preston
Mt Preston
Fortescue I
Potter I
Carey I
James Point
Mt Potter 322
Mt Wilkie 530
Mt Regal
Mt Prinsep
Mt Sholl
Mt Roe
Mt Leopold
Mt McLeod
Beeding H
Yatholo Hill
Cherratta
Zebra Hill
Millstream
Coolbung Hill
Blacktop (Brothers)
Flat Topped Hill
Mt Herbert
"Mount Enid" (Abandoned)
Woolyaweerch Hill
Table Hill
Darling Peak
Cooya Pooya
Black Hills



MONTE BELLO ISLANDS

APPENDIX "B"

RESERVES OFFICE
DEPT FISHERIES & WILDLIFE
PO BOX 316
KARRATHA WA 6714

Chief Research Officer
Wildlife Research Centre
WANNEROO WA 6065

RO/17/81

Thevenard Island Nature Reserve No 33174

Inspection Report on Lease No 3116

An inspection of the lease was carried out on the 29th July 1981. It was fortuitous that Mr R Redall one of the Lessees was in residence on Thevenard Island and I was able to discuss a number of matters with him arising out of my inspection.

I regret to say that some of those matters of which were of concern to us and were recorded in 1979 have not been attended to, these are enumerated in my appendix A.

A Directors Residence of fibro construction with three bedrooms has been erected on a frontal dune South/West of the manager's residence. This is aesthetically displeasing by virtue of its position, its appearance is not enhanced by a separate septic toilet block alongside.

Little has changed on this island lease and I question most seriously the actual purpose of the Lessee's objectives, the financial investment into this new building has drained resources away from the public holiday complex which remains as primitive as ever.

I invite your attention to my appendix A, my conclusions and recommendations and trust this data will enable a policy of tighter control to be enforced on the lease.

R E S SOKOLOWSKI
RESERVES OFFICER
DEPT FISHERIES & WILDLIFE
KARRATHA
13th August 1981

RES:cc
Attach

ATTACHMENT B

APPENDIX A

Inspection of Lease No 3116 in company with the new resident manager Mr V Allan.

Holiday Cabins Area: (P.P. 1-6)

This site has changed little since our 1979 visit. Tamarisk trees are well established up to a height of 4m. The P.P. 15 - 16 are for species Melaleuca and P.P. 17 is a mystery. Rainwater tanks have been added to each cabin.

Shower Units: (P.P. 7-8)

As primitive as ever. The 44 gallon drum units are reportedly fired from wood taken off the lease (which is no douht supplemented by the destruction of the indigenous flora during excavation of the rubbish pits). A potential fire hazard does exist at this area. Mr Redall did not agree.

Rubbish Disposal: (P.P. 11-13)

This present system must be stopped immediately. The photo sequence illustrates the destruction of well established flora species to accommodate garbage disposal. These pits are an environmental disaster to this very fragile island ecosystem. Mr Redall saw no alternative to disposal of daily garbage.

Fire Fighting Facilities on This Lease

These are inadequate. A petrol driven pump lifts water from the "soak" to overhead storage tanks for toilet and shower use. I understand this pump would be used to fight a fire by connecting it to a water service feed from the overhead tank. There is no water trailer unit available although there are hoses located in a box mounted at the rear of the shower unit (PP7 refers). Note rubbish accumulation below this box.

Suggested Fire Break at Rear of Shower Units

I see merit in this suggestion but Redall was un-impressed. I suggested solar panels could alleviate a potential fire hazard and obviate the constant need for firewood.

Proposed 6m Wide Firebreak Nth/Sth at Western End of Airstrip

After careful consideration and on site inspection I recommend we abandon this proposal. Considerable environmental damage would occur by the clearing of a 6m wide firebreak. This exposed and coverless land tract would become an environmental disaster in the event of a cyclone blow on this island.

This area is recorded as within the cyclonic region and experienced a "blow" in 1975.

Recommendations

That Mackeral Islands Pty Ltd (the Lessees be directed to:-

a) Excavate deep pits or trench to facilitate long term rubbish disposal. This area is to be located within the despoiled grounds already used for this purpose.

After progressive filling the area must be re-planted with indigenous native shrubs and trees. PP 9-10.

b) Remove all accumulated junk and rubbish off this lease at the end of the current holiday season. Our request in 1979 on this matter has been ignored.

c) Provide suitable fire fighting appliances and cut a protective break around the hot water boiler units (44 gallon drums with wood fires).

d) Remove a commercial vehicle off island. This was used to transport cool room to Thevenard and has been lying on the southern beach for eight weeks now.

e) Make arrangements through the Government Nursery Officer, Karratha to purchase and plant out at the commencement of the 1982 holiday season a number of native trees (recommended - Acacia corriaceae).

The removal of the exotic "Tamarisks" should take place at this time.

f) All future building development and its positioning within the lease area must be advised to this Department for approval before construction commences.

END

APPENDIX "C"

Fauna Observed on Thevenard Island Reserve No 33174

1 Pelican
2 Willy Wagtail
9 Silver Gulls
1 Osprey
2 Little Pied Cormorant
2 Common Sandpiper
1 Bar Shouldered Dove
3 Common Bronzewing Pigeon
4 Zebra Finch

DEPARTMENT OF FISHERIES AND WILDLIFE

Western Australian Wildlife Research Centre

Mullaloo Drive, Woodvale, W.A. 6026. P.O. BOX 51, Wanneroo, Western Australia 6065. Phone 405 1555 Area Code 09

RESERVES OFFICE
DEPT FISHERIES & WILDLIFE
PO BOX 316
KARRATHA WA 6714

RO/18/81

Chief Wildlife Research Officer
Wildlife Research Centre
PO Box 51
WANNEROO WA 6065

INSPECTION REPORT

Hermite Island - Montebello Group July 27th/28th 1981

An inspection was carried out on Hermite Island on July 27th and July 28th, 1981 having been transported to this island in the P.V. Phillip King from Onslow.

I enclose two sets of photographs depicting the topographic features and general ground cover over the southern half of this island. There are signs of an earlier fire and this is particularly noticeable in the valley areas which display poor regeneration in the species "Triodia pungens". The island has a healthy appearance with a diverse plant community which appears to be the general pattern throughout.

The Triodia colonizes all the limestone ridges and slopes and is the dominant specie. The depression and valley areas have mixed plant communities and this is particularly noticeable in the sheltered locations.

The calcareous sands support the larger shrubs although there is a high mortality in plant species which I believe can be attributed to excessive leaching of the seasonal rainfall. This particular area favours propogation of Salsola kali as the dead material of this plant was much in evidence.

The D.W.O. Mr Peter Pennings and myself worked together on the 27th when we appraised the general ground cover of the spinifex Triodia pungens. The results did not produce a regular and consistent pattern and this is attributed to ground profiles and their exposure to seasonal weather patterns. Without doubt the Triodia is in a healthy condition and we came upon vigorous regrowth in all areas except those having deep calcareous sand depositions.

From observations it is apparent that the feral cat population is healthy as "scats" were on all walk tracks, this may be

/2

the reason for negative sightings of reptilian fauna.

There were a few birds although the prevailing 25-30 knot E.S.E. winds were not the ideal conditions for birds.

I conclude by inviting your attention to my appendix A which details records of this visit.

R E S SOKOLOWSKI
RESERVES OFFICE
DEPT FISHERIES & WILDLIFE
KARRATHA

18 August 1981

RES:cc

Encl

c.c. The D.W.O. Karratha.

Appendix D

Triodia Ground Cover - Hermite Island. 27th & 28th. July 1981.

AO. Limestone Ridges and Slopes.

	Ground Cover	Average	Triodia Height.	Spread.
Exposed ridges.	20-40%	30%	100-200mm.	200x200mm.
Exposed Slopes.	40-60%	50%	200-250mm.	.75x.75m.
Sheltered areas.	60-80%	70%	280-300mm	1mx1m.

AB. Valleys and Flats.

Calcareous valleys	5-10%	5%	400-500mm	1m.x1m.
Calcareous flats.	10-20%.	15%	500-700	1.2mx1.2m.

AC. General Comments.

Evidence of fire in all areas. The shrub regrowth is pronounced and this is particulary observed in the valley areas. There is a a light fuel hazard in depression areas which is an accumulation of dead spinifex and Salsola kali.

There are very large clumps of Triodia which have obviously survived the earlier fire and these are most noticable along the Eastern side of the island.

End