

Waterbird survey of Sandfire Floodplain

On the 4th and 5th of May 1999 I accompanied Gordon Graham and Tim Willing on a survey and reconnoitre of the flood area to the east of Sandfire Roadhouse approx center of area was GPS 19deg 47'00" 121deg 20'00" 25 kms east of Sandfire Roadhouse. The aim of the trip was to ascertain waterbird usage and reccey the site for access later in the year for survey work on the permanent springs on the southern side of the area.

Our 1st telescope views and binocular search of the flooded Halosarcia to the west of the Great Northern Highway 10kms before Sandfire Roadhouse revealed 390 Egrets, Great 350, Intermediate 20 and Little 20. Many hundreds of Straw-necked Ibis were feeding and small numbers of Australian Grebes and Grey Teal were using the open water immediately adjacent to the highway. The water was still flowing across the highway to a depth of approx 5-10cms near the southern boundary of the flood plain and here 500 Whiskered Terns were loafing when not being put to flight by passing vehicles. More terns were feeding over the flooded Halocarcia and the open water habitats. Where the water flowed under a culvert good numbers of Speckled Perch congregated and the terns were plunging for these. The most common prey seen taken, was however, frogs, species unknown.

After this initial search we moved a four kms north on the highway and from here 19deg44'00" 121deg12'30" waded into the dense Halosarcia abutting the road to gauge boat access. The water was from 20 to 60cms deep and thick with Algae, species unknown. We searched on foot and used 10 X42 binoculars and a 25X telescope with these and wading we surveyed approx to 1.5 kms east of the highway. The area was alive with Black-winged Stilts and Whiskered Terns. We only found 1 B-w Stilt nest, which had 4 eggs, but judging by the amount of noise and distraction displays being performed there was obviously chicks in the area. There were approx 1000 stilts in the survey area. Whiskered Terns were in similar Nos. Approx 25% were juveniles, all were free flying and we saw none being fed. Adults were in breeding, non-breeding and partial breeding plumage. They had presumably bred on the flood plain. Other species present were White-necked Heron foraging, max 10. S-n Ibis, a few 100 feeding and over flying the area eastward. Gull-billed Terns were associating with the Whiskered Terns but in very small Nos >10. The G-b Terns were in non breeding plumage and of the resident race macrotarsa using size and very pale upperparts as ID features. Hardhead, Grey Teal and Black Swan were seen open the open lake with the telescope. 20 Glossy Ibis flew over the area towards the east. 5 Great Egret were feeding. Red-capped Plovers in small Nos were flushed from the Halosarcia. We also flushed upto 100 Red-kneed Dotterel. They were difficult to count and we may well have double counted some birds but this habitat was obviously to their liking. The most exciting find in this area was a Painted Snipe *Rostratula benghalensis australis*. We flushed the bird twice and good views of it in flight were obtained. An Unusual Record Report Form (URRF) is attached.

At 08:00hrs on the 5th we towed a punt by hand through the thick area of flooded Halosarcia surveyed the previous evening out to the open water and spent the next 7hrs exploring this fascinating area. We visited 4 Islands, Sanders Spring and a melaleuca swamp (briefly!) We finished up approx 32kms east of Sandfire Roadhouse.

Birds seen in the area excluding the islands, spring and swamp are listed below; these sites were surveyed individually.

Freckled Duck	1 see later note.
Black Swan	40
Grey Teal	30
Hardhead	10
Hoary-headed Grebe	3
Darter	3
Australian Pelican	1500
White-faced Heron	10

Spangled

mainly Chara sp.

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Little Egret	50
White-necked Heron	10
Great Egret	900
Intermediate Egret	50
Straw-necked Ibis	300
White-bellied Sea-Eagle	1 immature
Swamp Harrier	1
Black-winged Stilt	500
Red-capped Plover	5
Gull-billed Tern	10
Whiskered Terns	3000
Budgerigar	350 (flying over lake)
Red-backed Fairy-wren	3 (in mangroves in middle of lake)
Zebra Finch	5 (in mangroves in middle of lake)
Tree Martin	100 roosting in mangroves

We gave the Islands our own names as they are not named on the maps of the area.

Round Island GPS 19deg45'09" 121deg15'50"

Approx 80ms diameter with only 30m diameter above the water and remaining totally dry. The vegetation was Halosarcia and Cyperus grass. *sp (sedge)*

Grey Teal	4 (2 birds flushed from 2 separate nests 10eggs and 9 eggs.)
Hardhead	4
Hoary-headed Grebe	8
Australian Pelican	20
Straw-necked Ibis	10
Black-winged Stilt	30
Red-capped Plover	6
Red-kneed Dotterel	10
Whiskered Tern	20
Budgerigar	15
Singing Bushlark	1
Fairy Martin	5

The Atoll GPS 19deg45'15" 121deg15'50"

A small muddy, mostly flooded area of Halosarcia.

Visited & landed on outer ring only

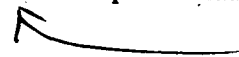
Black Swan	2 (1 nest with 3 eggs)
Grey Teal	2 (1 nest with 11 eggs under Salsolaki sp (Rolypoly Bush. 1 abandoned nest with 9 eggs) <i>Kali</i>)
Hardhead?	1 abandoned nest, 3 eggs and shell fragments from hatched or predated eggs.
Red-kneed Dotterel	1 bird doing animated broken wing display.

Pelican Island GPS 19deg46'16" 121deg15'05"

This narrow strip of land 200ms long by 10ms wide was fringed on it's northern side by Avicennia marina (Grey Mangrove) Bird life was dominated by Pelicans and S-n Ibis. We counted 14 Pelican Nests in a 10mX4m rectangle at the western end of the colony. All nests contained 2 eggs. We did not venture further due to disturbance of the birds. In this same 40m sq were 15 S-n Ibis nests with 2, 3, and 4 eggs. They were abutting Pelican nests in 3 separate stick 'towers'. Black Swans were nesting with one pair having 3 free swimming cygnets and one hatching (presumably from this pair) there were 5 other nests with 2, 3, 5, 6

and 6 eggs. There were 3 other nests, possibly Hardhead, 1 appeared abandoned, each with 9 eggs concealed under *Flaveria australasica* (Speedy Weed). The most intriguing observations on this Island were of dead and dying Pelicans. Upto 30 could be seen from our vantagepoint the dying birds couldn't hold up their heads or walk but had healthy looking plumages. Botchellism is a possible cause.

Black Swan	14
Grey Teal	10
Pink-eared Duck	3
Darter	10
Australian Pelican	1500
Straw-necked Ibis	1000
Swamp Harrier	1
Kestrel	1
Eurasian Coot	1
Red-kneed Dotterel	2
Whiskered Terns	15
Budgerigar	35 flying over
Richard's Pipit	1



Botulism

Pelican Spit GPS 19deg47'07" 121deg15'55"

no vegetation

We did not make landfall on this 5m wide 100ms long strip of sand. It was surveyed from a distance from the boat. It was dense with Pelicans many on nests.

Black Swan 10(possibly nesting but not confirmed)
 Australian Pelican 1400
 Straw-necked Ibis 50(approx 14 nests)

Arc Island GPS 19deg46'56" 121deg16'30"

Some *melaleuca* and *Avicennia marina* were established on this island. Birds on this island appeared to only be loafing. No breeding activity was recorded. Surveyed from boat.

Black Swan	16
Grey Teal	10
Darter	1
Australian Pelican	550
Great Egret	12
Straw-necked Ibis	25
Black-winged Stilt	4
Tree Martin	25

Incidental record GPS 19deg46'36" 127deg17'31" (approx 2.5km east of Arc island)

We flushed a Freckled Duck from in or from the base of an *Avicennia marina* (Grey Mangrove). The bird was only 3-5ms away when it flew and great views of the red bill base and sloping head were obtained (URRF attached) On searching the tree we found a nest of flat sticks with a lot of down. We took a sample of the down and sent it to Ron Johnstone at the WA Museum. It was (unfortunately!) Pink-eared Duck down. We had seen this species in the vicinity.

All Islands were surveyed for 20mins over a 2ha area. Where the Island was smaller than 2ha the surrounding water to that size was also surveyed. This is the method being used by the New Atlas of Australian Birds, which we were undertaking in conjunction with our other survey work.

Saunders Spring GPS 19deg47'09" 121deg20'26"

Broome Botanical Society

This permanent fresh water spring has been fenced off by CALM to prevent damage to the vegetation by Camels and Cattle. The vegetation is comprised mainly of *Sesbania formosa* (DragonTree), *Typha domingensis* (Bullrushes), *Melaleuca acacioides* (Saltwater Paperbark) and *Acacia ampliceps* (Salt Wattle). We searched the area on foot for 1hr between 13:45 and 14:45.

Black-fronted Dotterel	2
Whistling Kite	1
Brown Goshawk	1
Pheasant Coucal	1
Sacred Kingfisher	1
Rainbow Bee-eater	12
Variiegated Fairy-wren	6
Gerygone sp	2 (probably Mangrove, slim chance of Western)
Brown Honeyeater	10
Red-capped Robin	1(female)
Rufous Whistler	10
Magpie-lark	2
Willie Wagtail	2
White-winged Triller	6
Masked Woodswallow	4
Torresian Crow	6
Zebra Finch	12
Clamorous Reed-Warbler	2

Melaleuca Swamp GPS 19deg46'04" 121deg22'21"

(*M. acacioides*)

On our return to the highway we saw large Nos of Egrets roosting in the tops of a group of trees. On closer inspection this turned in to 500 Egrets as the earlier flocks dominated by Great. When I entered the swamp I disturbed 300 Rufous Night heron and 300 million mosquitos! With long pants, repellent and more time this may turn out to be only a fraction of the birds at this roost

References: Broome and Beyond Edinger, Kenneally and Willing

Shorebirds: An Identification Guide to the Waders of the World Haymen, Marchant and Prater

The Taxonomy and Species of Birds of Australia and its Territories Christidis and Boles

Field Guide to the birds of Australia Simpson and Day

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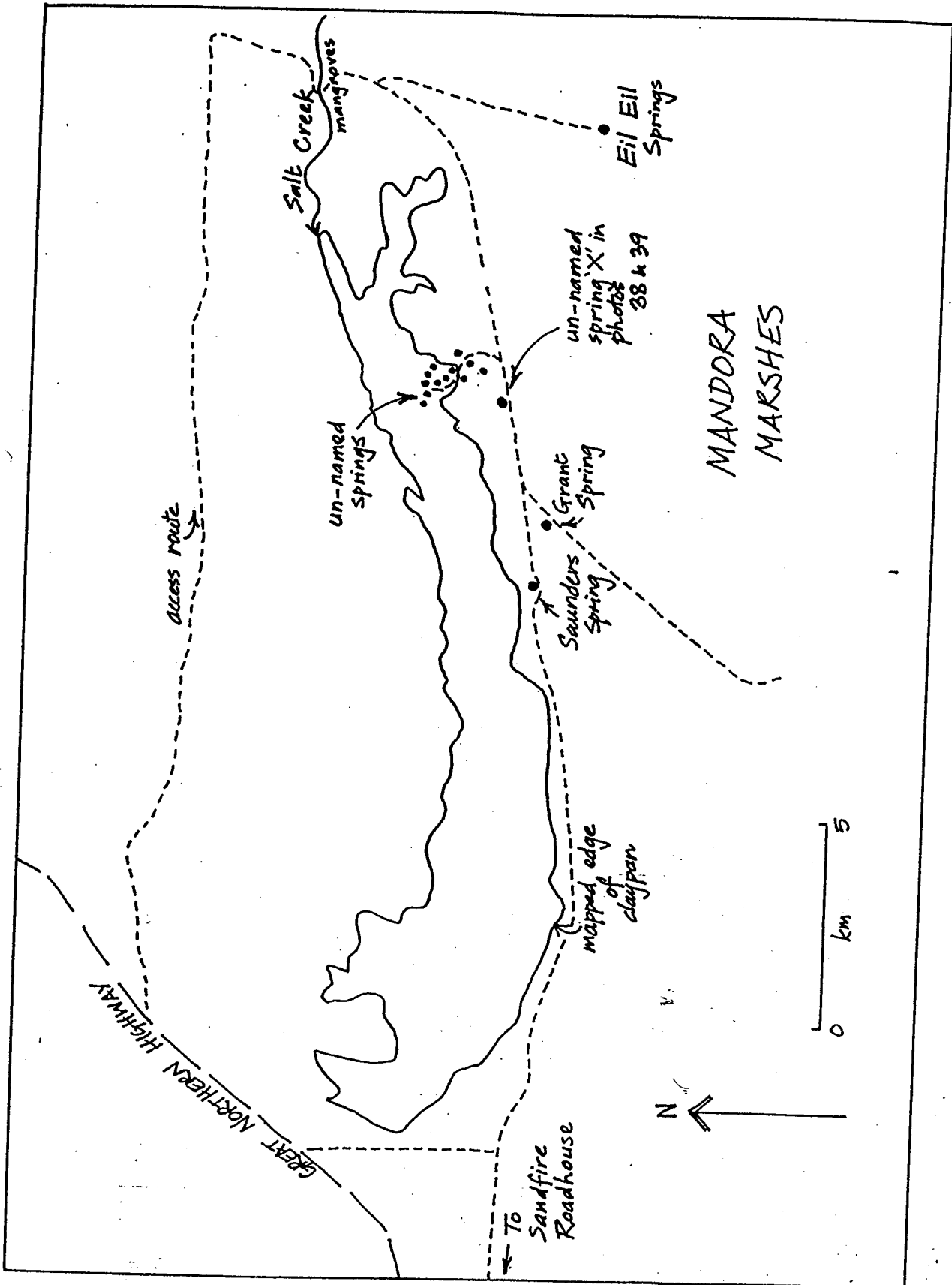


Figure 8. Detail of western part of Mandora Marshes

Beard wrote in 1967 re the mangroves of Salt Creek, but not in the lake itself.

Currently there are substantial undocumented stands of Avicennia marina in the lake^x and even germinants on the eastern edge of the Highway. I hope to map & size class these trees on the October Expedition with CALM forester Tanya Vernes (Kununurra).

Since the GT Northern Highway was sealed c. 1982, the raised causeway constructed (with floodways & culverts) may have created something of a "dam effect" to prolong the life of the lake & effectively make it deeper, after major flood events. (MRD have just sent me highway construction diagrams to examine)

/i- Willig 8/7/99

x occur west to 'Pelican Island'; the mangroves support superb spider colonies but we've found suprisingly few bird nests in them.

J.S. Beard 1967 An inland occurrence of mangroves.

W.Aust. Nat. 10: 112-115

We returned by punt to the lake on 10 June. Around 300 young pelicans on 'Pelican Spit'. Gull-billed terns also nesting on atoll-like rim adjoining; some suffering from botulism as were some young + old pelicans. Blood samples taken. Final report not yet written. Lake shrinking fast. Straw-necked ibis breeding apparently failed →
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