Gull-billed Terns in the South-West

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In the past, the Gull-billed Tern *Gelochelidon nilotica* has been regarded as a rare visitor to the South-West and Eucla Land Divisions. However, observers participating in the Royal Australasian Ornithologists Union's (RAOU) survey of waterbirds using south-western wetland nature reserves (vested in the Western Australian Wildlife Authority), have found the terns at a number of localities.

So far in the 1983-84 waterbird breeding season, Gull-billed Terns have been seen at several salty wheatbelt lakes and on the Coastal Plain. In addition, although there are no published records of the species breeding in the South-West Division, RAOU observers recently located a small breeding colony of the terns near Wongan Hills.

Background

Typically mid-way between the Crested Tern *Sterna bergii* and Common Tern *S. hirundo* in size, the Gull-billed Tern is readily recognised by its immaculate white plumage. It is in fact most similar to the Silver Gull *Larus novaehollandiae* in length and, as the name implies, it has a stouter bill than either Crested or Common Terns. Although breeding adults sport a long sleek black cap, immatures and non-breeding adults may have shadowy head markings or occasionally none at all. One of the most distinctive features of the Gull-billed Tern is its peculiar yelping calls, often written as "kuh-wuk, kuh-wuk".

Cosmopolitan in occurrence, Gull-billed Terns are rare visitors to Tasmania and New Zealand but are not uncommon on parts of the Australian mainland. Besides the endemic Australian subspecies *G. n. macrotarsa*, the grey-tailed migratory Asian subspecies *affinis* has occasionally been recorded in Australia, eg. in the north-western Kimberley.

The status of the Gull-billed Terns in Australia is not well understood, owing to their highly nomadic movements. Major breeding efforts seem to occur opportunistically in the inland, typically following floods, or after heavy downpours which fill shallow lakes. There is some evidence for regular movements to northern coasts in winter and southern coasts in summer. In considering regular haunts, Gull-billed Terns appear to be least common in the higher rainfall parts of southern Australia.

▲ Gull-billed Tern *Gelochelidon nilotica*.

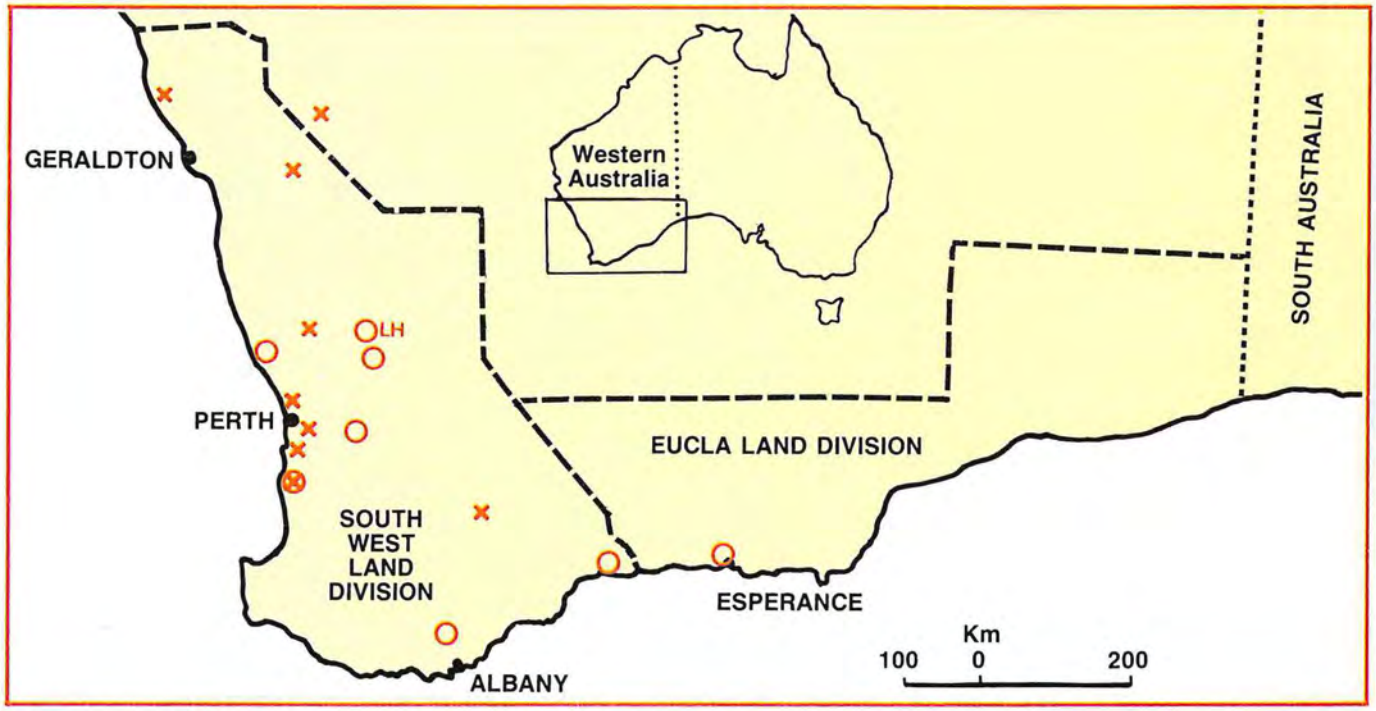
▼ A Gull-billed Tern's nest with eggs at Lake Hinds.

In Western Australia, the Gull-billed Tern is most common in the North-West, e.g. the Eighty Mile Beach and Roebuck Bay, but until 1953 it had never been seen in the South-West. During the 1950s, individuals and small flocks were seen at Hutt Lagoon; near Morawa, Moora and Wanneroo; at Lakes Forrestdale and Cooloongup; near Peel Inlet and at Lake Grace. Nesting has been observed near Pt. Cloates, Wooleen (in the Murchison), Lake Nabberu (north of Wiluna) and Yalgoo.

Records from the RAOU Waterbird Survey

Fieldwork for the RAOU's Atlas of Australian Birds (1977-81) resulted in South-West records of Gull-billed Terns from near the Stirling Ranges and Esperance. However, observers monitoring wetlands for the RAOU's Waterbird Usage Survey have since contributed quite a few reports of this species, some from 'new' localities.

Between June 1981 and May 1983, participants located Gull-billed Terns at six wetlands: Lakes Ninan and Hinds near Wongan Hills, Peel Inlet, and Warden, Windabout and Ewans Lakes near Esperance. Besides Peel Inlet, these are all essentially salt lakes, even though Lake Ninan has sometimes reached more than 2.0 metres in depth. In this period, the



▲ Locations of Gull-billed Tern sightings in the south of Western Australia. O indicates records by R.A.O.U. observers since 1977; X indicates earlier records. The only recorded nesting site of the Gull-billed Tern in the South West and Eucla Land Divisions is at Lake Hinds (LH).

▼ The Gull-billed Tern breeding colony at Lake Hinds.

▲ Chick and egg of the Gull-billed Tern.

maximum number of birds seen together at any one time was only two and most records were from August and September, with no evidence of breeding anywhere.

In the 1983-84 waterbird breeding season, water-levels in Walyormouring Lake (Goomalling Shire), the Beverley Lakes (Beverley/Brookton) and Jerdacuttup Lake (Ravensthorpe) reached peaks not seen for some years (0.9m, 1.92m and 0.98m respectively). These are all salty lakes with salinities in September 1983 of between 6.3 and 49.6 parts per thousand.

Gull-billed Terns were first detected at Walyormouring Lake on 13 October, when three birds were seen sitting on a small dry bar between a vast area of flooded samphire and open water. This bar and two nearby islands in deeper water may have been suitable nesting sites, but observers did not detect breeding evidence in subsequent visits to the lake. Four Gull-billed Terns were reported at Beverley Lakes on 10 October by J. Masters while a single bird was seen at Jerdacuttup Lake on 3 September by R. Schulz.

A team of observers from the Kwinana/Rockingham/Mandurah/Murray Branch of the W.A. Naturalists' Club censuses waterbirds on a monthly basis in the eastern Peel Inlet reserves. One of the team was with me on 17 November when a lone Gull-billed Tern was seen at the Harvey River delta. During a co-ordinated count three days later, members of the team saw seven Gull-billed Terns, the first for their study.

The only freshwater wetland which was found to support Gull-billed Terns was Karakin Lake near Lancelin. Five birds were seen at this shallow grassy lake on 29 October, 1983.

First Suspicions of Breeding

I first suspected that Gull-billed Terns were nesting near Wongan Hills in mid-September. During a brief visit to Lake Hinds at this time, I noticed three pairs of terns sitting on mud spits and samphire islets at the north end of the lake. I quickly inspected these possible nest sites but without luck. However, one pair of terns returned to circle over and 'bark' at me near one of the sites.

I decided to revisit Lake Hinds after hearing that a flock of 29 Gull-billed Terns had been encountered on 9 October by O. Mueller at a small lake in samphire flats a few kilometres south of Lake Hinds. Consequently, in the early morning of 28 October I began my search in the south-eastern part of Lake Hinds. Here, with the aid of a tripod-mounted spotting scope, I was able to see far enough to determine that Gull-billed Terns were probably not present on the eastern side of the lake.

The Breeding Colony

Having ruled out the eastern side of the lake, I then drove along a road with a view of the western side of the lake where I spied a fairly large samphire 'island' close to the lake shore. Again using the telescope, I saw white tern-sized birds sitting on the island and occasionally spreading their wings.

The approach to this area was through ice-cold shallows about 25cm deep. Bearing in mind the need to minimize disturbance to the birds if they were nesting, I identified and counted the birds (29 Gull-billed Terns) from a 'safe' distance, before moving quickly through the suspected nesting site.

As I approached the site, adult Gull-billed Terns flew around me, calling loudly as they did so and displaying the distinctive bright red colour inside their bills. This convinced me that nests were nearby. Moving along a dry mud bar (50m long) between flooded samphire and open, deeper water, I counted 21 nests at spacings of 1.5 to 2.5 metres over a distance of 20 metres. The nests were all bowls constructed of weeds and grass, up to ten cm high at the rims. They were as close as practical to the exposed 'beach' of the mud bar.

One nest contained one egg and one chick only a few days old, nine nests held one egg and eleven nests held two eggs. Markings on the eggs and chick seemed typical of some species of tern that I had encountered breeding in the past.

As I moved away from the site, adult birds quickly returned to their nests. The total of 21 nests implied a probable total of 42 adults involved in the colony so some birds must have been flying around the lake or elsewhere. As I reached my vehicle, a group of at least 12 birds casually flew low overhead, heading towards cropland. Having earlier seen one tern bring a grasshopper-like food item to the colony, I concluded that the Gull-billed Terns were feeding at least to some extent over dry land.

Dry land feeding is not unusual for this species in inland regions. At times I have even seen Gull-billed Terns hawking over stony gibber near shallow pools in desert country. Accordingly, the terns breeding at Lake Hinds may have been partly or even largely independent of the salty lake for their food supply. Salt lakes are possibly favoured by Gull-billed Terns as they are more likely to include bare islands for nesting and roosting than deeper, vegetated fresher lakes of the coastal regions.

Unfortunately I was unable to return to Lake Hinds to determine nesting success. However, the remoteness and poor access of the site should have precluded intereference by humans although strong winds and waves on the lake could have caused some trouble to eggs close to the lake-edge. Another danger the colony may have had to face as water levels fell was the possibility of foxes and other terrestrial predators wading out to the nesting site to attack eggs and chicks. I believe however, from first-hand experience with Gull-billed Terns caught in cannon-nets at Broome, that any foxes reaching the nesting site would have received savage treatment from the adult birds.

Conclusion

No doubt observers will continue to find Gull-billed Terns at more localities in the South-West. Although this species is probably one of many which erupt periodically into the South-West, any previous nesting at Lake Hinds or elsewhere could easily have been overlooked. Salt lakes are rarely visited by naturalists and if it were not for the Waterbird Survey, this 'new' colony might not have been discovered in 1983.

Furthermore, some waterbirds, e.g. the Sacred Ibis and Yellow-billed Spoonbill, are increasing in numbers in the South-West and now breed regularly in the region. With salinization and loss of vegetation in many lakes in the last 20 years (i.e. more habitat available), the Gull-billed Tern could well be following a similar pattern.