

# Namibia Coastal/Marine Bird News 6

Newsletter of the Namibia Coastal/Marine Bird Working Group

January 2009

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## NAMIBIA'S TERN SPECIES

### What makes it a tern?

Terns (Afrikaans "Sterretjie", German "Seeschwalbe") occur worldwide. Most are seabirds, although some species occur on freshwater wetlands. Together with skuas, jaegers, gulls and noddies they belong to the large family Laridae, comprising the sub-group Sternidae with 44 species with 3-10 genera.

Terns are identified chiefly by size, structure and bill colour. One of their most striking characteristics is their long, fairly slender wings and loose, buoyant flight. They have pointed bills, short legs and three webbed toes, with a reduced hind toe. The sexes are alike in plumage colouration (usually whitish and grey, with black markings) but they often have distinct breeding, non-breeding and juvenile plumages. We see the migrant species in their breeding colours only during March and early April, when they are about to return to the northern hemisphere to breed.

Terns feed by plunge-diving or surface-seizing, and also occasionally hawk insects in the air. They are mostly gregarious and colonial ground-nesters, the nest usually being a scrape in the ground. The eggs are patterned and the chicks are semi-precocial to precocial (i.e. they can run around soon after hatching).

Threats to terns include increasing habitat destruction (e.g. from coastal developments and mining) and human disturbance at breeding sites, mainly from off-road vehicles; predation from jackals and gulls, often exacerbated by human disturbance; and the potential effects of climate change on the terns' food supplies.



↑ Jackal predation on a Caspian Tern nest (photo Ann Scott)



Adult Damara Tern – a charismatic flagship for the conservation of Namibia's coast (photo Jessica Kemper)

### Which terns are found in Namibia?

Several tern species are resident in Namibia, with one breeding endemic (see below). The migrant species arrive in large numbers from the northern hemisphere during our summer months and feed on the rich food supply (mainly fish) resulting from coastal upwellings. The largest numbers of terns are normally found from Sandwich Harbour to Cape Cross. Many terns (on average 250 000 birds) also feed on the small fish and krill that enter Walvis Bay Lagoon during this time. Tern species recorded in Namibia include:

#### Residents

**Caspian Tern** *Sterna caspia* (*Vulnerable*; uncommon to locally common with both nomadic and sedentary populations)

**Damara Tern** *Sterna sterna* (*Near Threatened* breeding endemic and a flagship for Namibia)

**Swift Tern** *Sterna bergii* (common)

**Whiskered Tern** *Chlidonias hybridus* (fairly common, may be nomadic)

#### Non-breeding migrants

**Arctic Tern** *Sterna paradisaea* (uncommon)

**Black Tern** *Chlidonias niger* (common)

**Common Tern** *Sterna hirundo* (very common)

**Little Tern** *Sterna albifrons* (uncommon)

**Sandwich Tern** *Sterna sandvicensis* (common)

**White-winged Tern** *Chlidonias leucopterus* (common)

#### Rarities/vagrants

**Elegant Tern** *Thalasseus (Sterna) elegans*

**Gull-billed Tern** *Gelochelidon (Sterna) nilotica*

**Lesser Crested Tern** *Sterna bengalensis*

**Royal Tern** *Sterna maxima*

(Refs: Sinclair & Ryan 2001; Roberts VII; Simmons & Brown 2007)

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## **DAMARA TERNS – FLAGSHIPS FOR COASTAL CONSERVATION IN NAMIBIA**

Rod Braby, email rbraby@nacoma.com.na

### **Phase 2 of the Caution Reef Damara Tern Breeding Area Protection Project**

During a survey of the northern Skeleton Coast in 1991, Sigi Braby and I found a single flock of over 5000 individuals south of the Kunene River. This discovery prompted a comprehensive MET survey in 1992 (Simmons *et al.* 1993), where the population was estimated at 12 000 adults. Prior to these discoveries the world population was estimated at 4 000 individuals in the 1970s (Clinning *et al.* 1978).

After Walvis Bay Enclave was given back to Namibia by Nelson Mandela in 1994, I did a thorough survey of the Damara Tern breeding areas to establish their importance in relation to others known in Namibia. The Caution Reef “colony” (the Damara Tern is one of the world’s few terns that does not nest in tight colonies) was found to be of global significance and found to be extremely threatened by uncontrolled tourism activities. Immediately, measures were put in place which involved the monitoring of annual breeding success to hatching, and MET patrols to inform holiday makers.

When monitoring and protection measures were proving impossible, with the huge increase in off-road vehicle activity, drastic measures were taken in 2000 involving a joint effort with business and GRN through the ICZM project of the Erongo region. Rio Tinto, through RUL, became a major player supporting MET with funds and encouraging other businesses to follow suit; this money helped to develop the cable barriers and information signs.

Eight years later a further investment was requested of Rio Tinto and BirdLife International, both of whom have committed to supporting the project for a further three years in terms of barrier maintenance, signage and monitoring. This is a major injection into the project and I would like to think that, after these three years, MET and BirdLife Namibia will be able to take up the challenge of continuing to conserve this charismatic species.



Ringed four-year-old Damara Tern on its nest on 29/11/08, north of the Desalination Plant (photo Eckart Demasius – see p5 for full story)

The ongoing support of a multitude of partners is gratefully acknowledged, in particular long term support from Sigi Braby; Rob Simmons; Rio Tinto; BirdLife International; CC Africa; CETN; Wesbank Transport; various fishing firms and Mark Boorman; and inputs by Justine Braby, Nicole Braby, Bianca Green, Rob Davis, Anat Shapiro and many others. RAMBOLL through the ICZMC; RA; WBM; SMM; ERC; MFMR; RUL; Rio Tinto; Coca Cola; 2041 Inspire African Coast and Antarctica Initiative; Big Banana Films; Namib Film; Nedbank Go Green Fund; Desert Explorers; Dare Devil; Outback Orange; Pointbreak; Areva; Namport; Barlow World; and many more smaller firms in many ways.

### **Damara Tern project in the south**

Justine Braby is busy with a M.Sc. project in the south, sponsored by NamDeb. This included a recent trip to Lagos in Nigeria (see newsletter No. 4, p1). In a heavily polluted habitat, a Damara Tern ringed in Swakopmund was observed with a unique colour combination. This same individual was subsequently recaptured in Swakopmund at the same spot it had originally bred. Ringing has provided important information on longevity (e.g. two individuals are known to have lived for at least 14 years). The birds are caught at the nest using a spring trap designed by Mark Boorman.

### **Gaps in Damara Tern conservation**

- A survey was carried out by Rob Simmons with an MET team in 1991 and this survey needs to be repeated, especially on the northern coast, in view of the perceived decline in numbers.
- On the central coast, threats are increasing from jackals (due to the spread of seal breeding colonies), with less human disturbance inside the demarcated areas now. Kelp Gulls and Rock Kestrels also pose a predation threat, although not as severe as the jackal.
- There is a need to work with tourism, in order to accommodate activities; educational tours are permitted within the “red zone”, also quadbike tours. There is a serious gap in law enforcement and crime prevention. Awareness needs to continue and to be accelerated during peak holiday seasons.



Newly hatched Damara Tern chick at the a breeding colony discovered on 1/1/09 on the Henties Bay Road, past the Mile 4 Saltworks (cellphone photo Gisela Noci)

## POPULATION TRENDS OF SOME COASTAL TERN SPECIES, 1990-2008

Holger Kolberg, Directorate Scientific Services, MET  
Email holgerk@mweb.com.na

Ed: Population trends of the African Black Oystercatcher (*Haematopus moquini*) were presented and analysed in the last newsletter (No. 5, November 2008). This analysis is now extended to three of Namibia's coastal tern species (with a follow-up of four more species in our next issue). Please see previous newsletter (p3) for details of the methodology and interpretation.

### Damara Tern (*Sterna balaenarum*)

*Red Data Book Status:* Namibia – near threatened, breeding endemic. International – near threatened.  
*Wetlands International population trend:* stable.

There are 151 counts at 24 sites on record for Damara Tern since 1990. Seven sites are from the Lüderitz peninsula and these were added together for the analyses. The highest average of 774 individuals was achieved in 1998 when six sites were counted (Fig. 1). Thirteen sites were counted in 1997 and 426 birds were seen. Two sites, Sandwich Harbour (23%) and Walvis Bay (50%), account for most of the birds seen.

#### Trend Analysis:

|                           |    |
|---------------------------|----|
| Number of sites           | 2  |
| Number of years           | 19 |
| Number of observed counts | 34 |
| Number of missing counts  | 4  |

Results for the linear trend model using 1990 as the base time give the following goodness of fit values:  
Chi-square 3478.62, df 31, p 0.0000  
Likelihood Ratio 2801.32, df 31, p 0.0000  
AIC (up to a constant) 2739.32  
Wald-test for significance of slope parameter:  
Wald-Test 0.02, df 1, p 0.8885  
Overall slope: UNCERTAIN

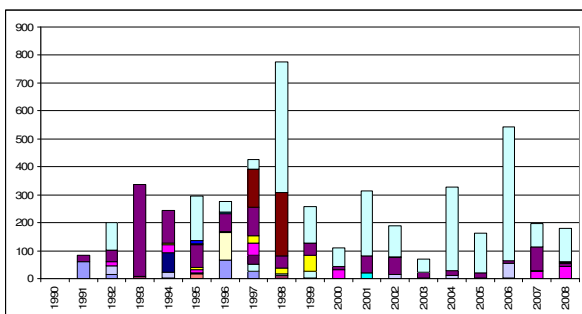


Fig. 1. Average number of Damara Tern counted per year from 1990 to 2008.

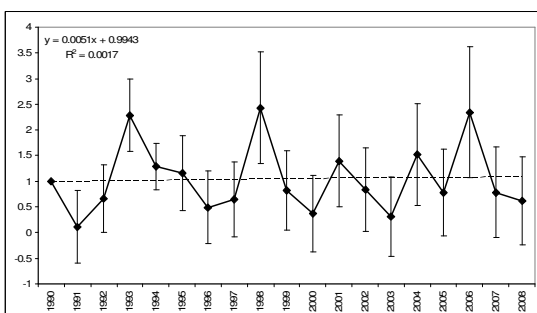


Fig. 2. Trends in Damara Tern populations using 1990 as the base time.

### Common Tern (*Sterna hirundo*)

*Red Data Book Status:* Namibia – very common non-breeding migrant; International – least concern.  
*Wetlands International population trend:* stable.

There are 180 counts at 30 sites on record for Common Tern since 1990. Seven sites are from the Lüderitz peninsula and these were combined for the analyses. The highest average of 245 617 individuals was achieved in 2001 when four sites were counted (Fig. 3). Thirteen sites were counted in 1997 and 54 788 birds were seen. Only two sites, Sandwich Harbour (47%) and Walvis Bay (15%), account for most of the birds but a once-off count from Paaltjies to Sandwich Harbour yielded 180 000 terns (or 24% of the grand total).



↑ A Damara Tern takes a plunge-dive (photo Jessica Kemper)

#### Trend Analysis:

|                           |    |
|---------------------------|----|
| Number of sites           | 2  |
| Number of years           | 19 |
| Number of observed counts | 34 |
| Number of missing counts  | 4  |

Results for the linear trend model using 1990 as the base time give the following goodness of fit values:  
Chi-square 266292.37, df 31, p 0.0000  
Likelihood Ratio 236533.11, df 31, p 0.0000  
AIC (up to a constant) 236471.11  
Wald-test for significance of slope parameter:  
Wald-Test 8.36, df 1, p 0.0038  
Overall slope: MODERATE INCREASE (p<0.05)

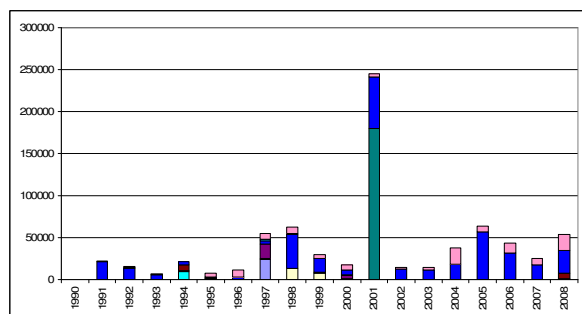


Fig. 3. Average number of Common Tern counted per year from 1990 to 2008.

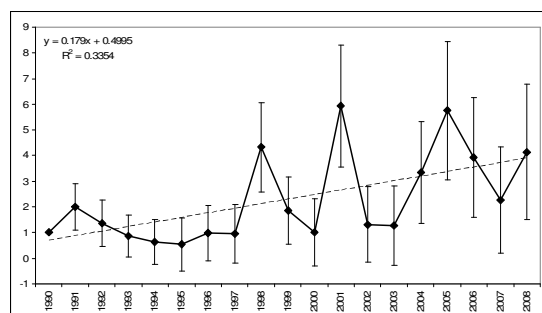


Fig. 4. Trends in Common Tern populations using 1990 as the base time.

**Caspian Tern (*Sterna caspia*)**

*Red Data Book Status:* Namibia - Vulnerable, International – least concern.  
*Wetlands International population trend:* stable.

There are 198 counts at 20 sites on record for Caspian Tern since 1990. Four sites are from the Lüderitz peninsula and these were added together for the analyses. The highest average of 296 individuals was achieved in 1995 when four sites were counted (Fig. 5). Ten sites were counted in 1999 but only 98 birds were seen. Two, Sandwich Harbour (33%) and Walvis Bay (47%), account for most of the birds seen.

**Trend Analysis:**

|                           |    |
|---------------------------|----|
| Number of sites           | 3  |
| Number of years           | 19 |
| Number of observed counts | 46 |
| Number of missing counts  | 11 |

Results for the linear trend model using 1990 as the base time give the following goodness of fit values:  
 Chi-square 850.54, df 42, p 0.0000  
 Likelihood Ratio 738.78, df 42, p 0.0000  
 AIC (up to a constant) 654.78  
 Wald-test for significance of slope parameter:  
 Wald-Test 0.61, df 1, p 0.4331  
 Overall slope: UNCERTAIN

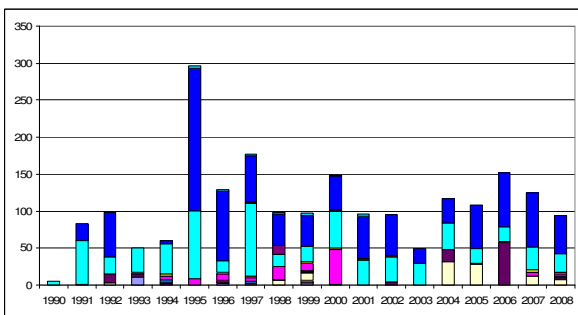


Fig. 5. Average number of Caspian Tern counted per year from 1990 to 2008.

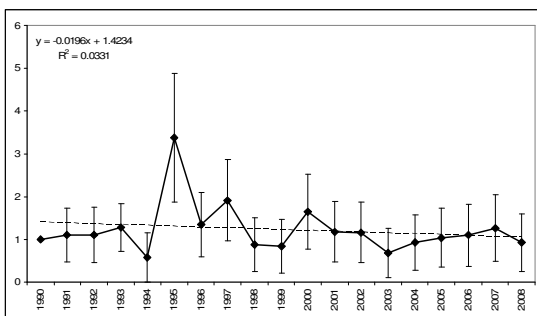


Fig. 6. Trends in Caspian Tern populations using 1990 as the base time.



Caspian Tern on nest at Walvis Bay (photo Keith Wearne)

**RING RESIGHTINGS/RECOVERIES & NEWSFLASHES**



**Terns photographed in flight by unmanned air vehicle**

**Gisela & Joe Noci** email gisela.noci@ate-international.com  
 The above photograph of terns in flight was taken by a camera on board a small unmanned air vehicle, referred to as "Kiwit". The photograph was taken whilst testing the system over the Mile 4 Saltpans north of Swakopmund, with the intention of taking photographs of the pans. The birds inadvertently flew below the aircraft! The system is currently being fitted with an autopilot, whereafter it is planned to use it for bird counts, and related applications. (For further information, please contact Joe Noci on 081 124 3426.)

**Damara Tern**

**Merry & Tarry Butcher**, email butcher@mweb.com.na  
 Tarry found a (dead) Damara Tern on the Venita beach this morning (19/1/08) with two rings: he left the bird but took off the rings. On the left leg a metal ring: FH 27353 and on the right leg a plastic pink/maroon ring.

**Comments on the above Damara Tern**

**Sigi & Rod Braby**, email brabys@mweb.com.na  
 Thank you very much for conveying this very useful information. This Damtern was ringed as an adult caught on its nest (nest record 4GP46) on 18/11/04. The colour ring combination was purple over black (so it lost its black ring, interesting information), in excellent condition but exact age unknown! The area it was ringed at is called the "Main Horse's Graves Plain" (S22 42' 338; E14 31' 956) near a look-out used by tour operators and quad bikes, more recently used by hooligans to race into the breeding area! The bird was not on its nest site this year so maybe the partner is also dead? It has, together with its partner raised 3 chicks that we know of. It would be good to get some measurements if the bird is still available? As far as our records go this is the first time somebody has reported finding a dead ringed Damtern, all the other ringed bird mortalities have been found by me and involved a collision with traffic on the busy Swakopmund/Walvis Bay road. Once again thank you very much for this very prompt response, it really helps us piece together parts of the puzzle that is the elusive Damtern!

### Ringed Damara Tern on nest

**Eckart Demasius**, email edemasius@swkmun.com.na  
& **Rod Braby**

Eckart photographed the ringed bird on its nest (see page 2) on 29/11/08, just north of the Desalination Plant. This bird was ringed as a chick at the Horses Graves in 2004 season, so it is about 4 years old. A very interesting record of a bird moving 50 km north from its natal site! There are records of short moves up to 18 km south from Caution Reef to Bird Island but this is the first record of a northward movement. Jackals and Kelp Gulls remain the main predators at Caution Reef with the New Year invasion of drunken humanity squashing 3 eggs (2 with quads and one on foot).

### Common Tern

**Mark Boorman**, email felix@mweb.com.na

On 4/12/08 Common Tern BH00467 was found freshly dead at the oyster beds, Mile 4 Salt Works, Swakop, 2235S 1432E. Damage to the carcass suggests that it had fallen prey to a Peregrine Falcon. A bird from the race *calidus* has been seen in the area for several weeks and has been observed taking a tern off one of the poles used to suspend the baskets in the water. According to Oscar at Safring this bird was ringed by Tim Osborne at the oyster beds in Walvis Bay, 2258S 1432E, on 4/1/03.

### Follow up on Swift Terns

**Dr Jessica Kemper**, email jkemper@mfmr.gov.na

Pete Bartlett ringed 346 Swift Tern chicks at Possession Island between 22 and 29/4/08 (see newsletter no. 2 June 08, p2). All chicks were ringed with metal rings (right leg) and orange plastic rings (left leg). Tony Delpont subsequently spotted two ringed fledglings at Ichaboe Island on 16/5/08; one of the birds was begging from an adult, presumably its parent. Mark Boorman first reported a ringed fledgling (being fed!) from Mile 4 on 4/6/08; for several months since then Mark and his accomplices have seen a number of ringed individuals between Mile 4 and Pelican Point. On 14/6/08, Tony Tree saw a ringed Possession Swift Tern at Mauritz Bay, just north of Saldanha and on 4/7/08 Tony Tree reported one from Nature's Valley, east of Knysna. Keep your eyes peeled for more sightings!



Offshore islands provide a safe haven for breeding Swift Terns (*photo Jessica Kemper*)

### Hand-reared Hartlaub's Gull survives

**Mark Boorman**

Early in 2000 the Swakop River made it down to the sea and in so doing washed away a small breeding colony of Hartlaub's Gulls in the reeds at the mouth. Two very small downy chicks were rescued and given to us to look after. Very easy to raise, they fledged, were individually colour-ringed and released at the Sewage Works on 04/04/2000. One of the birds was seen there regularly for a few days. It was seen again several weeks later at the river mouth. In December 2005 this bird was seen tending to chicks at the breeding colony at the Sewage Works. The other was not seen again after its initial release. Imagine my surprise and delight when I spotted this bird at Mile 4 Salt Works on 18/12/2008, getting on to 9 years after we released it! It's always great to know that a rehab/artificially reared bird has managed to make it in the wild.

### Flagged Sanderling

**Mark Boorman**

On 11/11/08, out at Mile 4 Salt Works, we got a look at a Sanderling which we recorded as having a red flag/white/red colour-rings on the left leg and white/metal on the right. Fortunately there was an email address for a researcher on the Euring colour-ring site and we got an immediate answer. However, the sighting was not 100% in line with their records and the bird could only be ID'd as one of four similarly ringed. On 12/11/08 a bird was seen about 200m away from the first sighting, though all we managed was a tantalising glimpse of a red flag. Amazingly, on 21/11/08 the same bird was seen again and all was revealed. In addition to the flag/colour-rings on the left lower leg, a metal ring was noted on the upper leg. The right leg could also more clearly be seen to have two white rings - one on top of the other. This bird was ringed with metal ring B01937 and other colours at Asenko Village, Ghana 04.55N 02.19W on 24/08/07 during its southerly migration. The two white colour rings on the same leg mislead us into thinking we were seeing white over metal, particularly as we missed the metal ring on the opposite upper leg on first sighting. The ringer reports that they needed to double up on same colours so as to have enough combinations.



Ringed Swift Tern juvenile spotted by Mark Boorman on 4/6/08, soliciting food from the adult (*photo Meidad Goren*)