Papers

The 1999 tern and wader expedition to Namibia

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Following the pilot survey made on the Namibian coast in early 1998 (Tree 1998), a full expedition to study terns and waders was mounted for the period February–March 1999. Fieldwork concentrated on terns with limited additional ringing of waders and Barn Swallows. Ringing studies of terns were an important aspect and included collection of suitable mensural data, weight, primary moult, acquisition of breeding cap and colouring of underparts, as well as ageing techniques. A considerable amount of data was collected on food and feeding habits, movements, flock components, roosting (both diurnal and nocturnal), pre-roosting behaviour, departure patterns and identification of colour-ring sightings. The expedition was very successful and, as usual, as many questions arose as were answered. As observed (Tree 1998), one person cannot work the Walvis Bay/Swakopmund area alone. A team with prior experience in tern and wader fieldwork was assembled. The largest contingent (5) came from the Netherlands, as did much of the funding; two field workers hailed from Norway and two from Australia. Mark Boorman, of Swakopmund, joined in frequently during tern ringing at the Mile 4 Salt Works near Swakopmund.

TERNS

Unfortunately, the unexpectedly favourable circumstances of early 1998 did not re-occur in 1999. Overall numbers of terns were probably normal. As usual, Common Terns completely outnumbered all other species combined, but peak counts indicated only 50 000–70 000 birds on that stretch of coastline. Once again the largest concentrations were found at Sandwich Harbour. Black Tern numbers were markedly lower than in 1998; totals in the Walvis Bay/Swakopmund area barely exceeded 5000 birds and were much lower at Sandwich Harbour. Further, the large majority had departed by late February with very few remaining throughout March. However, this species and its close relative, the White-winged Black Tern, were very difficult to count during the day. Estimates could only be made from one observation point, as the birds headed into roost at Walvis Bay. In addition, many terns still came into roost after dark, so were not counted. Only in early February, when large concentrations of shrimp were available, were substantial numbers of Black Terns found feeding inshore.

The real mystery bird remains the White-winged Black Tern. Small numbers were found feeding in Walvis Bay during the day. In the evenings, however, much larger numbers were counted flying past the yacht club into the inner lagoon. This species is not an open coastal feeder; they feed on freshwater or at salt works. All such sites were checked during the day but only the occasional bird was found. So where do they come from? Evening observations at other points along the coast, yielded negative results. Occasional departures to the north-north-east (i.e. inland), at considerable height, were noted at the yacht club and over the docks. Could these birds be arriving at the coast from inland feeding stations on the other side of the Namib Desert? This species is highly nomadic in its non-breeding quarters in both Africa and Australia, so daily long-distance flights may be customary for this species.

The fluctuating numbers of Black Tern visiting this coastline are difficult to explain. A total of 290 birds were caught. As very few were juveniles, it is likely that these stay in West Africa in their first year. Large numbers of adults may only move south into our waters during years of food shortage at their main non-breeding grounds in West Africa. Alternatively, they may follow large movements of krill southwards along the Angolan current, which may flow further south in some years than in others. It has already been suggested (Tree 1998) that 'our birds' may be of eastern origin, leap-frogging the western populations. The latter appear to congregate in the Netherlands before heading south to Africa. In contrast, eastern birds seem to migrate through the Mediterranean. The single Black Tern control (BN09619) was a bird caught in March 1999, on autumn passage in northern Italy, perhaps supporting the possibility of an eastern migration route. The chances of recoveries in places such as Kazakhstan are remote nowadays. Thus, given our small number of birds ringed, there is a higher probability of controls on migration in Europe, rather than of recoveries from farther East.

The numbers of other tern species were similar to those of 1998. Substantial movements of both Sandwich and Swift Terns took place along the coast occasionally, in similar numbers to 1998. Counts at diurnal roost sites, however, were much lower than the peak numbers in 1998. The above two species were targeted for colour-ring observations, resulting in 130 sightings. Many Sandwich Tern colour-ringing studies in Europe are done by students, who appear not to advise the relevant ringing authorities of their marking schemes. This creates identification problems in both the winter quarters and on the various breeding grounds, as this species tends to move a great deal between colonies. The identified sightings were largely of Dutch origin, as in 1998. Very few appeared to be from British and Belgian colonies. The balance could be from Denmark, Sweden or Germany and may yet be identified (although, at time of writing, no information has been received on 1998 sightings!). All colour-ringed Swift Terns were juveniles from breeding colonies in the western/southwestern Cape. Of these, the vast majority were juveniles or immatures ringed during the 1996, 1997 and 1998 breeding seasons. Only one yearling was sighted in 1998 (a 1997 cohort); in contrast, many yearlings of the 1998 cohort were present this season. These known-age colour-ringed birds add important information on the distribution of age groups, ageing and development of breeding plumage, although anomalous situations do occur in the population as a whole.

Damara Tern appeared to have had a much more successful breeding season, locally at least, than in 1998, but overall numbers appeared to be lower. Full-grown birds are difficult to catch as they appear to move back into the desert to roost at night and do not join roosts of the larger species. Our remote-controlled 'whoosh' net had a lot of teething problems so we missed several potential diurnal catches of this species, ending up with only one juvenile!

The numbers of Caspian Terns seemed similar to 1998. A small colony of over 40 birds formed at the Walvis Bay Salt Works only to be flooded out. At Mile 4 Salt Works, one pair nested and was checked on every visit through late egg stage, to the hatching of two young. As is usual, only one survived and eventually fledging shortly after our departure. We were very pleased at the success of young 'Casper', as jackals patrol the ponds and regularly destroy aspiring colonies of breeding Hartlaub's Gulls. The female parent incubated the eggs and cared for the young, and the male would take over in the late afternoon to allow her to feed. The male appeared to be the only parent actually collecting fish for the chick, occasionally bringing a fish so large that he had trouble in swallowing it himself. Both parents were very alert at all times, attacking gulls and keeping a wary eye on us, flying around calling harshly. However, no close attacks were made on us, even when I was ringing 'Casper', in contrast to the behaviour of some of the smaller tern species.

Table 1. Totals of all species ringed during the expedition, together with totals of author's recaptures.

Species	Nos. ringed	Author's retraps
Whitefronted Plover	28	1
Chestnutbanded Plover	3	1 (from 1998)
Grey Plover	12	
Turnstone	119	1
Curlew Sandpiper	59	2 (one from 1998)
Little Stint	2	
Sanderling	58	
Red Knot	18	
Bartailed Godwit	3	
Avocet	12	
Kelp Gull	2	
Hartlaub's Gull	2	
Caspian Tern	1	
Swift Tern	46	
Sandwich Tern	56	
Damara Tern	1	
Common Tern	940	3
Whitewinged Black Tern	1	
Black Tern	290	1
Barn Swallow	176	1
African Marsh Warbler	120	2

Single adult Whiskered Tern were seen in February, on two occasions at Walvis Bay Salt Works and once at Sandwich Harbour.

Finding nocturnal tern roost sites remained problematic. The only accessible site was Mile 4 Salt Works. Another site was found, about thirty minutes walk out onto the mudflats at Walvis Bay. The distance made it a unsuitable for night operations, and the large numbers of flamingos sharing the site were a further complication.

Daytime roosts were found at a variety of sites. Although 'whoosh' netting was attempted, the birds would merely move off a short distance when disturbed. The nocturnal roosts at Sandwich Harbour were totally inaccessible even by boat. Tape luring was used very successfully, especially for Black Terns. The catches of Common Tern were generally sufficient for us not to need tapes, although when we did, the catching rate immediately increased. The Dutch brought a Sandwich Tern tape which proved useless, as the calls recorded in Europe were different to the calls heard at the roost site. A tape lure of the latter call could significantly enhance catching rates of this heavily ringed seabird on the East Atlantic flyway. A suitable tape for Swift Tern could do the same. The opportunity to use a tape for White-winged Black Tern never arose, as they roosted well out on the Walvis Bay mudflats. Both single-shelf and double-shelf nets were used along the edges of the banks of the salt ponds. Greatest catching efficiency occurred during light to moderate south-westerly winds with little or no moon or good cloud cover. Results on clear, calm nights with a moon were generally poor. Catching was greatest from dusk to just after dark, when the birds seemed to fly around before settling down; continuous light movement carried on till between midnight and 2 a.m. and then again before dawn.

Specially designed cotton holding-bags were made up for the different sizes of terns. The bags were much broader at the bottom than at the top. This ensured that the ends of the wings and tail were not bent. Birds were

Table 2. Origins of ringed birds controlled* or recovered during the expedition.

Cape Teal	Local	2	(one controlled and one found dead)
Turnstone	Local	2	(found dead along with several unringed birds; one from 1998. Probable toxic deaths)
	Canada	1	(colour rings read in field)
	Finland	1	(ring partially read in field)
	Poland	1	(ditto)
Sanderling	U.K.	1	(colour rings read in field)
	Iceland	1	
Kelp Gull	Local	1	(found dead)
Hartlaub's Gull	Local (?)	1	(ring partially read in field)
Common Tern	Local	2	(found dead)
	Finland	12	
	Poland	2	
	Belgium	1	
	Sweden	3	
	Norway	1	
	Germany (eastern)	5	(one found dead)
	Estonia	3	
Sandwich Tern	Ireland	1	(uses the BTO ringing scheme)
	U.K.	3	(three rings read in field)
	Netherlands	6	(one found dead; one ring read in field)
	Germany (eastern)	1	(ring read in field)
	Unknown	1	(ring number read in field, address too small)
Swift Tern	Local	1	(found dying; destroyed).
	Namibia	1	
	S. Africa	3	
Black Tern	Local	1	(found dead)
	Italy	1	
Barn Swallow	Namibia	1	
	U.K.	1	
African Marsh Warbler	Local	1	(colour rings read in field)

* Control applies to birds identified from rings read in the hand, rings read in the field or individual colour rings read in the field. The latter category does not include sightings of colour rings used as locality or year codes only.

collected by vehicle and brought back to our camp site quickly where they were immediately transferred to keep-cages with one species only per compartment. This ensured that no overheating took place in the cotton bags; this had been a problem when we were ringing terns at Cape Recife in 1971–1972. The keep-cages are made of shade-cloth, are collapsible, lightweight and easy to store and carry.

The retrap rate on terns is very low (Table 1) indicating a high degree of mobility in the group as a whole. The three Common Tern retraps were a 1st-year, a 2nd-year and a probable 3rd-year bird. The first two were unlikely to migrate that season and could well winter on the Namibian coastline or remain in Africa, drifting northwards. The recaptures for the first two birds were over a month after first ringing, whilst the latter was only a week later. The only recapture of Black Tern was an adult retrapped eleven days later.

It was interesting to compare the percentage of ringed birds against the estimated percentage seen to be wearing rings in the field. Common Tern estimates suggested that about 2.5–3% of all birds seen in the field were metal-ringed; the actual capture rate of foreign-ringed birds was 2.8%, reflecting the

field situation well. The anomalies lay with Sandwich and Swift Terns. Field observations in 1998 (Tree1998), indicated that 15–20% Sandwich and 15% of Swift Terns were metal ringed. The situation in the field in 1999 was similar but the trapping rate showed only 9% of Sandwich and 6.5% of Swift Terns were already ringed, despite the fact that ringed birds are considered more vulnerable to mistnet capture — and in effect, one of the Swift Terns was caught in a net by the ring only. It should be mentioned that a SAFRING ring was added to all foreign controls. This ensures that we will be notified of any future recoveries of those particular birds by SAFRING.

Some mention should be made of reading rings in the field. First of all, great patience is needed, as a ring can be only partially read when the bird is stationary, so continuous checking is required in case it moves. One also needs to get very close to the birds, as even with a 60× telescope the rings are often difficult to read. We would sit on the sand and gradually wriggle our way forward a few metres at a time. This is the only way that the birds will accept an encroaching presence. Lastly, good light and a suitable tide is essential; the best conditions occurred on the west-facing shore, in the morning with low sunlight and on an incoming tide when birds were pushed increasingly towards one thus changing position periodically.

WADERS

Some of the most exciting results came from the very limited amount of wader work that was carried out. The numbers of waders were much as usual, although Red Knot numbers were very low. There were incredible concentrations of Turnstone and Sanderling on the inner shoreline of Pelican Point in early February. A feeding density of over 1000 Turnstones was found on 400 m of shoreline and some 2100 Sanderling were feeding on 600–700 m of shoreline, both on 9th February.

However, it was a phone call from Mark, on 7th March, that eventually caused much excitement. He reported a colour-ringed Turnstone that he, his wife and a friend had seen at the pumphouse of the Mile 4 Salt Works. The whole team saw it the next day. Floor Arts thought the rings/flag looked very similar to one that he seen a couple of years earlier in the Netherlands and which eventually proved to have been ringed in northern Canada. We emailed Guy Morrison and received a rapid reply confirming that the bird was indeed one of his. Unfortunately, one colour ring had disappeared so we could only pin the bird down to one of a possible nine ringed at Alert, north-east Ellesmere Island, in the summer of 1996. This is the first indication that Nearctic Turnstone might winter in Africa, although it has earlier been suggested that a proportion of the population may reach West Africa. This bird, an adult male, was last seen at the same site on 18th April, by Mark Boorman. All previous work in southern Africa has indicated a Siberian origin for the Turnstones visiting our shores.

Twelve days later a Sanderling bearing an Icelandic ring (868713) was caught at Pelican Point and on the 27th, at the same locality, an individually colour ringed bird was seen and later traced to the east coast of England. Intriguingly this bird had been ringed on 25 March 1995 as a juvenile and was from an overwintering population considered to be of Nearctic origin as are migrants passing through Iceland. Is it possible that first-year Nearctic birds winter in western Europe and then later winter further south? Once again, this is the first hint that Nearctic birds reach Africa, as all previous indications suggest that our visitors of this species are of Siberian origin as well.

Less common waders are a feature at Walvis Bay in particular, but one bird, the Grey Phalarope, took everyone by surprise. It would appear that a small wreck of these birds occurred along the coastline. The first indications were at least six birds seen at Pelican Point during a waterbird count on 3rd March. Thereafter small numbers were seen regularly up to the beginning of April at a variety of sites whilst specimens of two dead birds were forwarded to the National Museum in Windhoek. Several Redshank were

seen up to the end of February and appear to be regular visitors to the area, as do European Oystercatcher, one of which was seen at Sandwich Harbour. A Mongolian Plover was seen on several occasions and two Broad-billed Sandpiper and an American Golden Plover were seen occasionally. Rednecked Phalarope were again present in good numbers in January, the last bird being seen on 20th February.

BARN SWALLOW

A small roost of Barn Swallows, usually numbering some 1500 to 2000 birds, was eventually tracked down to the extensive reed-beds near the Walvis Bay Sewage Works but it was not an easy roost to work. The birds did not respond well to tape lures unless they intended to roost at the exact site where these were being played. Feeding on this coastline cannot be easy for swallows and sometimes they would only arrive at last light flying straight into their roost site without 'sweeping' the area first. Numbers of African Marsh Warbler were also ringed during these sessions.

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REFERENCES

Tree, A.J. 1991. Terns on the Namibian coast in early 1998. Safring News 27: 7–11.

Maclean, G.L. 1985. Robert's birds of southern Africa. Cape Town: John Voelker Bird Fund.