

**Roseate tern newsletter**  
**No 8. November 1995**



Norman Ratcliffe, RSPB, The Lodge, Sandy, Bedfordshire, SG19 2DL, UK.

At last the long awaited and much requested roseate tern newsletter makes a re-appearance. Apologies for the delay in the publication of this edition but there have been a few staff upheavals at RSPB with myself replacing Adrian del Nevo as seabird research biologist. I feel that this season has been an exceptional one, with increases in the number of roseates in Europe, with a few pairs breeding in new sites. On the strength of this I feel this newsletter is due, since good news in the roseate tern world is well worth telling!

**Roseate Tern Workshop**

The roseate tern workshop was held in Glasgow on 27.3.95 following the Seabird Conference. This meeting was a great success and was attended by representatives from most of the European colonies and by Ian Nisbet from the USA. The standard of presentations was high and generated stimulating discussion. Proceedings from the conference will be published and distributed to roseate tern workers this winter.

The opportunity was also taken to discuss a standardised methodology for field work in Europe so that the results from all colonies were directly comparable. The discussions were very productive and contributed greatly to a standardised methodology, although it was acknowledged that logistic and 'political' constraints at different colonies existed. On the basis of the discussions a fieldwork manual was produced and circulated to field workers. The final draft of the manual will be circulated more widely following the discussions with field workers.



## ROSEATE TERN COLONY REPORTS

### *United Kingdom*

Overall numbers of roseate terns in the UK remained fairly stable at 72 pairs, a similar figure for the last 2 years. Details of individual UK colonies follow.

### *Scotland*

The number of pairs on Firth of Forth remained fairly stable this year with 11 pairs on the main Forth site and raised 13 chicks to fledging. Two pairs prospected at Inchmickery but did not attempt to breed and probably headed to the main Forth colony. The exceptional news is from the Isle of May, where one pair bred this year for the first time in over 40 years. The pair raised a chick to the age of 15 days after which it presumably died. Ring reading showed that the adult birds were both from Rockabill: one was ringed in 1989 and the other in 1992.

### *England*

There were 38 pairs breeding on Coquet Island this year which is a similar total to previous years. Thirty five chicks have been ringed so far and fledging success has been estimated at around one chick per pair. Seven pairs nested in boxes, but the abundance of vegetation and disused rabbit burrows means that these are less attractive than in other colonies. Feeding watches suggested that most of the birds were taking clupeids and sandeels.

The Farne Islands held 2 pairs on the main island this year, the same as 1994. They raised 2 chicks to fledging. One of these birds nested in the rim of an old tyre which had been specially provisioned as a nest box. In the USA tyres have been used with considerable success and they have been shown to be better for fledging success than all nest box designs. Some have also been deployed on Coquet, so Northumberland has taken the lead in this initiative. One 2 year old bird from Rockabill was identified from ring reading on the shoreline of the main island.

The Scilly Isles had a poor season for roseate terns with no conclusive evidence of breeding this year, although some adults were seen around the former colonies. In 1994 the Scilly Isles held 4-7 pairs. Problems of disturbance and flood tides led to a poor season for terns in general on Scilly.

The most unusual news is that roseate terns are becoming urbanites! One pair bred in a small common tern colony in the Sunderland docks, with a couple of non-breeders frequenting the site too. The appearance of roseate terns at Seaforth Nature Reserve in the Mersey Docks was also a real surprise to everyone. Two birds appeared first, one from Rockabill and one from Cemlyn. A third bird appeared later which was from Rockabill and this bird began scrape



building near the main hide. A further three sightings have been made since then but the birds involved were not identified. All identified birds were ringed in 1993 and so they would not really be expected to breed this year. Perhaps we will see another new colony in Europe next year!

#### *Wales*

The number of roseate terns has declined on Anglesey this year with only 11 pairs on the west coast site. The long established colony on the islets in Cemlyn Bay was abandoned. A few birds were seen around The Skerries to the north of Anglesey, but none stayed to breed. This represents a decline in the Anglesey population from 20 pairs in 1994.

Peregrines and crows continue to be a problem on the west coast site. The peregrine nests nearby and causes a great deal of disturbance at the colony, forcing birds to leave the colony for prolonged periods. The crow was responsible for egg predation on the island. Foxes were prevented from reaching the island at low tide by wardens who patrolled the causeway at night. Despite the problems facing the roseates at this site they managed to rear 8 chicks to fledging.

#### *Northern Ireland*

A total of 8 pairs bred at Larne Lough in Co. Antrim. Of these, seven pairs nested on Swan Island and raised four young and 1 pair nested on the artificial Blue Circle Island, raising one chick. This is the first successful season in Northern Ireland for 2 years.

#### **Republic of Ireland**

An excellent year was experienced on Rockabill in Co. Dublin this year, with a record 554 pairs being recorded before the cut-off date of 1 July. There were 47 late nests as well, which could indicate that the actual number was closer to 600, but these are omitted due to the risk of including re-lays. This represents a 40.6% increase on the 1994 breeding population. The increase in numbers seemed to be due to recruitment from the 1992 cohort, as indicated from ring reading and probably due to birds moving from Lady's Island Lake. There were also a number of birds from the 1993 cohort loafing on the periphery of the colony so further increases could be expected next year. The season was a reasonably successful one with a mean clutch size of 1.45 and an estimated fledging success of 1.26 chicks per pair. Problems were encountered when 2 kestrels came onto the island, causing some chick predation (mainly on common terns) and a great deal of disturbance. Two second year birds ringed as chicks on Isle aux Dames in Brittany were identified by ring reading.



The numbers on Lady's Island Lake declined to 60 pairs from 140 in the previous year. These missing birds were thought to have emigrated to Rockabill.

The All Ireland Tern Survey was conducted this year with the entire coast of Ireland being censused. Despite this huge effort no new breeding sites for roseate terns were found.

### **France**

Counts of incubating birds from offshore rocks suggested that there was a slight increase in the number of pairs on Isle aux Dames: 85 pairs compared to 80 pairs in previous years. Gull culling was carried out early in the year and tourists were prevented from landing. Unfortunately no ringing was allowed on the reserve this year.

### **Azores**

The Azores experienced an increase in the number of pairs this year: up from 550 in 1994 to 1,028 this year.

Flores hosted an impressive 586 pairs on the small offshore stacks of Baxio Moinho and Alagoa with a further 11 pairs on cliff sites nearby. Only 2 pairs were present on the Ponta Delgada colony. On Faial a new colony of 70 pairs formed in boulders at the base of the volcano at Capelinhos. There were no birds on the Ribeirinha colony. Pico held 32 pairs on the small stack next to the harbour at Santa Antonio. No pairs were present on Ribeiras.

The colony at Contendas on Terceira increased to 114 pairs: up from 30 pairs in 1994. Graciosa had a very poor year for roseate terns with no pairs on Praia again this year. Ilheu Baxio had 6 pairs, Ilheu Gaivota 5 pairs and Ponta Branca 2 pairs, bringing the Graciosa total to 13 pairs. This is an increase on the total of 8 pairs in 1994 but is a far cry from 1990 when Praia was home for 100 pairs.

Santa Maria experienced a decline in numbers from 241 on Ilheu Vila in 1994 to an estimated 200 this year. Unfortunately an accurate clutch count was not obtained since the season was earlier than usual and many clutches had hatched. Detailed studies of chick growth and provisioning rates were carried out. The food of roseates was mainly trumpet fish, Atlantic saury and horse mackerel with a few boarfish and garfish also in evidence. There were also a few mesopelagic lantern fish which live at >500m depth during the day. How these fish are made available to terns is not known, but it may be due to tuna driving fish to the surface, upwellings at the side of seamounts or the fish being driven inshore by currents after coming to the surface at night.





The surveys of population size were only conducted on the main established colonies so a few pairs may have been missed. Next year, an all Azores seabird censusing programme will give a better estimate of the actual population size.

The good news for the Azores is that the sites on Flores, Terceira and Graciosa are now wardened to prevent disturbance by tourists and fishermen. The cost of the wardens contracts is being met by the Azores government. It is proposed that permanent full time wardens will be appointed for each island. These wardens will concentrate on terns in the breeding season and conduct other conservation work for the rest of the year. It is also proposed that the wardens can be trained to carry out basic monitoring and allow research workers more time to conduct more detailed studies.

### **Morocco**

Several roseate terns were sighted at Oued Souss (Agadir) in mid July. At least two had rings on both legs but no readings could be obtained. The site is a muddy estuary so presumably these were loafing, non-breeding birds.

### **USA**

Census figures for 1994 indicate around 2800 nests during the peak period and 3250 for the entire season, at 20 and 21 colony sites respectively. Data from earlier years suggests that numbers were more or less stable during the late 1980s, dropped sharply by 15% between 1991 and 1992 and have been stable at a lower level since. The annual census of roseate terns in the North eastern USA in 1995 yielded a total of about 3200 pairs in 9 colonies during the peak laying period. The total number recorded in the year was 3700 pairs. This is the highest number recorded since intensive monitoring began in the 1980s.

In 1995 productivity was high at most colonies, with over 2,500 chicks being ringed with roseate specials. The intensive multi-site demographic study of roseate terns continued this year. The results of the first four years work will be published in Ecology late in 1995 and will describe emigration and survival rates. Ongoing work will aim to estimate post fledging survival and recruitment. Feather samples were taken from chicks and adults for estimation of sex specific survival rates which may account for the skewed sex ration in this species.

In the past 12 years a lot of effort has been invested in restoration of former tern colonies by removing gulls that compete for space. This has resulted in 3 major tern colonies and several smaller colonies being re-established in Maine and Massachusetts. The latest success is Ram Island in Massachusetts where 2 pairs of roseates nested in 1993, 130 in 1994 and over 400



pairs in 1995. Over 20% of the population now nests in restored sites. These successes are offset by losses from other colony sites. Cedar Beach which was the third largest colony in 1992 was totally abandoned in 1995. Cape Cod was once the stronghold of the species in this region in the 1930's but only held 2 pairs this year. Losses are attributed predation by foxes, great horned owls, cats and crows.

Recaptures and resightings of ringed birds in 1994 included an unusually low number of 3 year olds, despite two and four year olds being recorded in good numbers. This suggests that an unusual mortality factor may have affected birds from the 1991 cohort, possibly Hurricane Bob which passed through the main staging area in August 1991. The estimates from 1995 suggest that survival may have been 80% lower for birds fledged in the 1991 cohort. It is estimated that the hurricane may have killed 3000 juveniles and 1000 adults. In 1995 the population would have passed through the Caribbean at about the same time as Hurricanes Luis and Marilyn so this could have serious effects on survival to 1996.

### **Seychelles**

The Royal Society for Nature Conservation reserve on Aride supported a colony of 611 pairs of roseate terns this year an increase from 424 pairs in 1994. Clutch size in Aride was low with only 8% of the clutches having 2 eggs. The season was successful with an estimated 0.5 fledglings per pair. This is the first successful season for a few years, with previous complete colony failures being attributable to serious food shortages. The colony was later than usual this year and so avoided the *Pisonia* fruiting season. The barbed fruits of this tree can often fatally entangle the plumage of adults. Introduced barn owls also seemed less active around the colony this year and no adult mortality could be attributed to this cause in 1995.

### **Acknowledgements**

Information was contributed by the following people:

Dave Fairlamb (Inchmickery), Mark Oksien (Long Craig), Nigel Harding and Mike Harris (Isle of May), Rod Lidstone-Scott (Coquet), John Walton (Farnes), Peter Robinson (Scilly), Alistaire Moralee (Anglesey), Steve White and Tim Melling (Seaforth), John Coveney and Oscar Merne (Eire), Luis Monteriro and Jamie Ramos (Azores), Chris Bowden (Morocco), Ian Nisbet (USA) and James Cadbury (Aride).

