

**A report on
the 2003 breeding season
at the
Little Tern colony
Beacon Lagoons Nature Reserve
Easington, East Yorkshire**

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1. Summary.

The Little Terns began a gradual return to the colony at Easington during the last two weeks of April and by the start of the warden's contract, on 27th April, there were 27 birds present. The numbers of Terns present on a day by day basis fluctuated greatly with the highest daily count of 84 birds being recorded by the end of May. The first eggs were being incubated by 27th May. The Terns appeared to favour two distinct areas within the overall colony area so this was taken into account when the electric fencing was erected at the end of May. Over the weekend 31st May/1st June the two nests in the northern area appeared to have been predated, although no tracks or signs could be detected. The Terns favoured the southern area of the site with numbers on eggs increasing to sixteen pairs by the third week of June. It was at this point that up to six Carrion Crows began predated eggs within the colony and unfortunately within 36 hours of the first egg being predated every nest had been destroyed. Over the next two weeks there were numerous breeding attempts in several places, all of which were unsuccessful due to either predation, human disturbance or tides. By late July it became clear that it was going to be a completely unsuccessful year for the colony, without any eggs hatching.

This represents the worst year at the colony since 1991 and only the seventh time in 27 years where zero productivity has been recorded.

It is also of concern that this year there were several incidences of vandalism at the colony. Signs were destroyed, the warden's hut was vandalised on a number of occasions and the warden was verbally abused several times by youths with, on one occasion, rocks being thrown.

2. Acknowledgements.

Many thanks to BP Exploration for the funding that allowed the wardening and monitoring of the colony to go ahead in 2003. Thanks also to English Nature, York University BTCV group, the South Holderness Countryside Society and the Yorkshire Wildlife Trust who all helped in some way with the project. Thanks must also go to Chris Wilson who covered the wardens job for two weeks in May, which was probably the most testing time due to the vandalism, and last, but not least to Paul Collins, Mike Coverdale, Andy Gibson, Dennis Parker and Barry Spence whose time, experience, expertise and support proved invaluable.

3. The colony month by month.

April.

The warden's contract began on 27th and by that time there were already 27 Terns present, although there was no apparent courtship behaviour with birds being absent for several hours at a time or loafing on the beach in front of the main colony area at Easington Lagoons. The perimeter fencing for the entire seaward boundary of the Beacon Lagoons Nature Reserve was checked and fencing erected in the gaps on 27th. Fencing was also placed around the main colony area with the signs warning of protected breeding birds put up on 30th.

May.

The first of a number of acts of vandalism occurred on 1st with all the signs erected the previous day being pushed down and thrown around the beach; these were replaced the same day and were either stolen or destroyed that same night. Over the first two weeks of the month the numbers of Terns varied from lows of zero on 3rd, 7th and 9th, to a high of 34 on 12th. The first signs of courtship behaviour were observed on 12th, with a blue colour ringed individual displaying with a sand eel on the beach, although none of the birds present appeared to be showing any interest in the fenced area at that time. By 14th the Terns began to spend time around the colony area, both displaying and loafing on the shoreline of the lagoon. On the morning of the 17th Chris Wilson took over as warden for two weeks, and discovered that the warden's hut had been vandalised overnight, the windows having been smashed. Over the next few days a number of Carrion Crows were noted in the area. The Terns mobbed the Crows whenever they approached the colony area.

During the second half of the month the numbers of Terns seen during the day gradually increased to a high of over 80 individuals on the 25th. The numbers of birds varied greatly from day to day suggesting that many of the birds seen were passing through. The electric fencing was erected on the 28th with the colony area being divided into two distinct areas, both of which were surrounded by fencing. The first Little Tern egg was found at this time within the fenced area in front of the warden's hut. The following day a group of youths were seen attempting to break into the warden's hut, but had gone when the warden got to the hut. The same group were seen again that afternoon and proceeded to verbally abuse the warden followed by one youth throwing a stone at the warden. The local police were informed of the situation. On the 30th 2 Terns were seen incubating in the large fenced area to the north of the warden's hut and 4 were on eggs in front of the hut, at this time an Oystercatcher was also incubating within the fenced area. By the 31st the number of Terns on eggs had risen to 7.

June.

On the 1st of June the warden's hut was vandalised again, the windows were smashed again and several panels were destroyed to the side of the hut itself. Three people riding trials bikes were on the beach but the warden was unable to speak to them. Martin Kerman returned on the 2nd to resume the warden's duties. On the 2nd there were 7 Terns sitting in the area in front of the warden's hut, however the 2 nests in the large area to the north had gone. An inspection of the area around the nests showed no evidence of human disturbance, and no trace of the eggs could be found. The number of Terns present during the first week of the month stabilised, the highest count being 64 birds. The number of birds on eggs increased from 7 on the 2nd to 12 on the 10th and 17 on the 16th. There were still a further 30 or so individual Terns frequenting the beach at low tide at this time. On the morning of the 19th, in heavy rain, there appeared to be some form of disturbance occurring. All the Terns were in flight, alarming over the colony area and very reluctant to settle, any movement from the warden in an attempt to discover the cause of the disturbance only seemed to exacerbate the situation, so in view of the adverse weather conditions the warden withdrew. During the afternoon of the 19th when the rain had stopped an investigation of the colony found just 3 Terns sitting and no trace of the other nests. The complete lack of tracks and the presence a few broken shells suggested predation, probably by Carrion Crows. The following morning there was just one Tern left incubating and this bird abandoned its nest later that day. During the weekend 21st/22nd there were only 30 or so birds present. At about the same time it was reported that an extra 30 birds arrived at the wardened colony on Teeside. On the 24th Terns were noted displaying in front of the bird watching hide at Beacon Lagoons and over the next few days six pairs began incubating eggs in this area.

July

On the 1st an investigation of the nests showed six pairs on three eggs each. Unfortunately by the 3rd these eggs had also been predated, probably by the same group of Carrion Crows. During the next week eggs were laid by three pairs on the beach to the north of the fenced area. It seemed unlikely that these pairs would be successful due to their total lack of protection and the fact that this area of beach is used by relatively large numbers of people. At this time there were a number of incidences of four wheel drive vehicles being driven on the beach during the hours of darkness. With the level of activity in the vicinity of the nest scrapes it was inevitable that these nests would also fail.

At about the same time two nests were discovered on the Point beach at Spurn, these nests lasted only 48 hours before they too were, unfortunately, predated.

The final breeding attempt by any Little Terns this year occurred at Chalk Bank, at Spurn. Three pairs began incubating eggs in an area just to the

south of the bird watching hide but unfortunately a high overnight tide washed out these nests.

Despite the apparent failure of the colony by mid July both the electric fence and post and wire perimeter fence were left in place until the end of the month on the off-chance that further nesting attempts might be made, but unfortunately they were not.

4. Breeding success at Easington 1977 to 2003.

Year	No. of pairs	No. young fledged	Productivity
1977	5	2	0.4
1978	4	0	0
1979	4-5	0	0
1980	6	0	0
1981	4-5	0	0
1982	4	8	2.0
1983	6+	15	2.5
1984	8	23	2.88
1985	11	8	0.72
1986	22	5	0.23
1987	2	0	0
1988	3	4	1.33
1989	20-25	1	0.04
1990	31	29	0.94
1991	20	0	0
1992	34	11	0.32
1993	62	20	0.32
1994	65	29	0.45
1995	71	4	0.06
1996	49	31	0.63
1997	42	2	0.05
1998	41	42	1.02
1999	54	45	0.83
2000	49	9+	0.18
2001	44	3	0.07
2002	34	32	0.94
2003	30	0	0

The table illustrates data available from when records are effectively complete. It shows that the Little Tern colony at Easington has had variable levels of success but has generally fared much better, from the aspect of the number of chicks fledged per year, since a formal protection scheme was put in place in 1990. The actual number of chicks fledged per pair has gone down since 1990 and this may well be as a result of the fact that the larger a colony is, the more obvious it becomes to predators with the obvious danger that brings.

Over the period illustrated in the table a total of at least 323 Little Terns have fledged giving an average fledging rate of 0.44 chicks per pair.

5. Colour ring sightings

Only three birds with colour rings were seen this year:

- an individual with a green ring was present on the 27th and 28th of April
- a further individual with a green ring was seen several times during July
- a bird with a blue ring attempted to breed within the fenced area of the colony, this bird was last seen on the 21st June.

Key to Little Tern colour ring colours

Colour of ring	Location where ringed
Mauve	Easington and Spurn, East Yorkshire
Red	Tetney and Gibraltar Point, Lincolnshire
Blue	Teeside
Black	North Wales
Green	Norfolk

6. Discussion.

The failure of the Little Tern colony at Easington this year represents the first year since 1991 that there has been a total failure to fledge any chicks.

The fact that the loss of eggs was due to predation by Carrion Crows causes concern, but 2003 is not the first year this has been a problem - the root cause of the 1991 problems was also due Carrion Crow predation.

There are a number of measures that could be introduced to reduce the risk of predation:

- The provision of a number of tern rafts to encourage Common Terns to breed in the area, which has been discussed in previous years. The presence of a more aggressive species is likely to have a positive effect on the breeding success of Little Terns. Despite the merits of this idea it must be remembered that Common Tern is not a regular breeding species in the area and consequently relies on the species becoming so.
- The introduction of more direct predator control measures should also be considered. This could include the use of Larsen traps to control the numbers of Carrion Crows present in the area. Carrion Crow control is carried out as a matter of course in some areas of South Holderness and it is hoped that control elsewhere will render control at the colony unnecessary. Carrion Crow control at the colony will be avoided if at all possible.

The acts of vandalism, verbal abuse and threats of violence suffered by the warden during the contract is also of concern, but this has happened in the past, though not to such an extent. The situation needs to be monitored and action taken if necessary. The damage appeared to be wanton and will not stop the protection scheme being run. The hope is that the culprits were in the area temporarily or have grown out of such antics.

The usual protection measures were taken this year, i.e. an electric fence and a post and wire perimeter fence. These measures were effective against terrestrial predators, but are not designed to deal with avian predators.

Overall, 2003 was very disappointing. We have had poor years in the past and it seems inevitable that it will happen from time to time, but as the breeding success table shows, over the years the project has been successful. We believe that there is little doubt that the measures taken to protect the Terns have improved their breeding success and that the operation of the protection scheme will continue to make a difference.