



The Little Egret in Britain: a successful colonist

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ABSTRACT Following a dramatic change in the level and pattern of occurrence in Britain during the last ten years, the first successful breeding in Britain by Little Egrets *Egretta garzetta* occurred in 1996. On Brownsea Island in Poole Harbour, Dorset, one pair raised three young in 1996, and five pairs reared 12 young in 1997.

This paper describes the background to this colonisation and suggests what future this attractive species may have in Britain.

The Little Egret *Egretta garzetta* is a widespread species in the World, occurring throughout the temperate and tropical latitudes in the Palearctic, African and Oriental regions, and also in Australia. The nominate form occurs in Europe, where it is widely distributed in wetland areas containing abundant foraging habitats. This population was estimated at 30,000 pairs (Hagemeijer & Blair 1997). It is particularly abundant in the lower catchment of the largest rivers—Tagus, Ebro, Rhône, Po, Danube and Volga—and in those coastal areas of Italy, France and Spain which have large lagoons.

Whilst breeding populations and ranges have mainly decreased in eastern Europe, they have increased in Italy, Spain and France.

It is thought that winter mortality may be an important factor affecting Little Egret populations. The majority of European Little Egrets move beyond southern Europe to winter in North Africa in order to avoid harsh conditions. Since the 1950s, however, an increasing number, thought to be about 10% of the total population, overwinters on the European side of the Mediterranean.

The increase in the French and Spanish population and the change in wintering behaviour has seen these egrets spread northwestwards along the Atlantic coast of Europe. In Brittany, wintering birds then began to establish breeding territories in spring, and finally, in 1960, Little Egrets established a regular breeding colony in Brittany, at the Lac de Grandlieu (Bargain 1993).

Although numbers built up during the 1960s, this remained the only Breton colony until 1983, when breeding occurred around Guérande (Bargain 1993). At this time, there was a dramatic increase in the number arriving in late summer—particularly July and August, but extending into October. Many of these birds subsequently spent the winter in the area, benefiting from the mild oceanic climate. Breeding farther north along the coast soon followed, and there was then rapid range expansion along the entire Breton coast through the mid 1980s and early 1990s. The birds moved into Normandy for the first time in 1993, breeding on the Iles Saint Marcout (Spiroux 1995).

Thus, in northwest France during 1983–93, breeding Little Egrets colonised a 600-km section of coast, establishing about 16 colonies and a population of approximately 400 pairs.

The driving force behind the range expansion has been northwesterly post-breeding dispersal, leading birds to overwinter for the first time in new areas, and then to stay on to breed. Bargain & Gelinaud (in press) have suggested, however, that the rapid increase has been aided by the extra protection offered to the species by the EC Birds Directive since 1979.

Status in Britain and Ireland

The level and pattern of occurrence of Little Egrets in Britain has changed dramatically in the last ten years. Fraser, Lansdown & Rogers (1997) showed that, during the 31-year period 1958–88, the average number of Little Egrets in Britain each year was fewer than 15, with a typical pattern of spring vagrancy. This changed abruptly in 1989, when there was an unprecedented early-autumn influx involving at least 40 individuals present in autumn.

Since then, an early-autumn invasion, with a high proportion of individuals overwintering, has become the norm. This annual influx involves several hundred birds, and the total here recently reached in excess of 1,000 individuals present in autumn.

Whilst they were recorded from a large number of localities, concentrations of egrets were occurring mostly on the sheltered South Coast estuaries and bays between Chichester Harbour, West Sussex, in the east and the Isles of Scilly in the west—with particular concentrations in Chichester Harbour, in Poole Harbour, Dorset, and on the Tamar Estuary, Cornwall/Devon, where individual counts of more than 100 have been recorded.

Although, typically, winter flocks disperse in spring, with many egrets presumably migrating south to breeding colonies in continental Europe, there has been an increasing tendency for small numbers of egrets to spend the summer in Britain.

Display, copulation, stick-collection and even nest-building, often in association with existing colonies of Grey Herons *Ardea cinerea*, were reported from a number of South Coast localities as long ago as 1993 (RBBP data) and

led to much speculation over exactly when and where Little Egrets would first breed in Britain.

Finally, the first confirmed successful breeding in Britain occurred in 1996, when two sites were occupied. Given the inaccessibility of some other potential nesting sites, however, it is possible that breeding may have occurred previously, but remained unnoticed or unreported. This was followed by further successful breeding at both sites in 1997.

A similar pattern of occurrences has been noted along the south coast of Ireland (Smiddy & Duffy 1997), where Little Egrets bred successfully for the first time in 1997.

Details of range expansion of breeding Little Egrets into northwest Europe are summarised in table 1; details of breeding in Britain are summarised in table 2 (both are on page 277).

An account is given below of the breeding on Brownsea Island, Dorset. Details of the second site, in southwest England, must remain confidential, until it is considered that this colony is fully established and that public knowledge of the site will not compromise the success of the birds at this sensitive stage of their colonisation.



▲ 89. Brownsea Island and lagoon, Dorset (*Kevin Cook*)



▲ 90. Three juvenile Little Egrets *Egretta garzetta* reared on Brownsea Island, Dorset, 1996 (Kevin Cook)

Breeding at Brownsea Island Nature Reserve, Dorset

At 200 ha, Brownsea Island is the largest of the islands in Poole Harbour. Since 1963, The National Trust has opened the island to the public, and the Dorset Wildlife Trust has leased the northern 100 ha as a nature reserve. The most impressive habitat is the lagoon: about 25 ha of open brackish water with surrounding reedbeds and saltmarsh protected from the sea by a seawall. Its water levels are controlled by a pump and sluice to protect its important tern colonies and wader feeding grounds. In winter, it is home to up to 700 Avocets *Recurvirostra avosetta*, over 1,000 Black-tailed Godwits *Limosa limosa* and many other waders. The rest of the island is centred around a wet valley of lakes, carr and reedbed. Rising from this are dry, sandy hills, largely cloaked in woodland of Scots Pine *Pinus sylvestris*, with dense thickets of Rhododendron *Rhododendron ponticum* or cleared areas beneath.

Early records of Little Egrets in Poole Harbour included singles in 1940, 1946 and 1961. In 1988, however, along with their colleagues in other southern counties, local bird-counters noted a steady increase of Little Egrets in the Harbour with up to four being seen regularly. Little Egrets were soon also noted inland, up river valleys, but the Harbour, with over 3,500 ha of open water, tidal creeks and mudflats, saw the largest roosts on evenings in late summer.

In the Harbour, 16 Little Egrets were recorded in July 1992, 32 in 1993, 85 in 1994 and 110 in 1995. The egrets regularly fed in the Brownsea lagoon and some roosted there overnight. Maximum numbers generally occurred during July to November, with smaller numbers throughout the rest of the year. Numbers on the lagoon peaked in 1994, with 52 on one July evening,

Table 1. Northwest European records of breeding Little Egrets *Egretta garzetta*.

1. There is also a one-off breeding record from the Loire Valley in 1989 (Guermeur & Monnat 1980).
2. Philippe J. Dubois *in lit.*
3. Smiddy & Duffy (1997).

Location	Year of first confirmed breeding	Number of colonies in 1997	1997 population (pairs)
Brittany	1960 ¹	18+	500+
Normandy	1993	4 ²	120 ²
Picardie	1996	2 ²	42 ²
Britain	1996	2	7
Ireland	1997	1 ³	12 ³

Table 2. Numbers of breeding Little Egrets *Egretta garzetta* in Britain, 1996-97.

Site	1996		1997	
	Nests	No. young	Nests	No. young
Brownsea Island	1	3	5	12
Site X	1	2	2	2

but then a slow decline was noted, with 43 in 1995 and only 28 in 1996, and very few seen at other seasons. It did not look as if Brownsea was going to attract the Little Egret as a breeding species as we had thought.

They were, however, first suspected of breeding on the island when strange guttural noises were heard coming from a secluded treetop* in 1996. Some weeks later, the assistant warden, Giles Strother, saw a Little Egret nest-building and later sitting, and the staff then kept a daily watch on the site, though it was extremely difficult to confirm fully whether this was a definite breeding attempt or just a roost, as the egrets left the nest at the slightest disturbance. Up to 12 individuals would roost there from about 20.00 GMT onwards. There were probably two pairs attempting to breed, with the earlier one succeeding. About 30 days after first hearing the birds, suspicions were confirmed as the warden, Kevin Cook, saw the fluffy feathering of four egret nestlings (one later perished)*.

The nest was smaller than that of a Grey Heron and, as the young egrets grew, they moved onto nearby branches where they waited for the return of their parents. Feeding was noisy, but quick, with adults feeding the young on shrimps and small fish caught nearby. About a month later, the nestlings had fledged. After they left the nest site, they stayed together as a family group, being seen on the lagoon or roosting on a nearby lake. Keen-eyed birdwatchers would have noted the two adults with three young, the latter lacking the adults' characteristic feathers and yellow feet, but people are used to seeing Little Egrets and no-one ever mentioned this to us.

The second year, 1997, was a repeat of the first, though we feared initially that the egrets would not try again as even fewer were seen around the island. The nesting site was some distance away from that of 1996, and was even

*Details of the nesting-tree species and the date of fledging have been omitted deliberately at this crucial stage in the species' colonisation.

more difficult to spot, the nests being in the canopy about 15–20 m away, with very poor access. There was some difficulty in making a nest-count, but eventually it was agreed that five pairs were nesting, probably yielding 12 young.

Unfortunately, to preserve its seclusion, visitors to the reserve will not be shown the nest site. There are, however, hides overlooking the lagoon, where egrets may occasionally be seen feeding. The island is open from April to September, with the reserve accessible by nature trails (guided tours only in July and August).

The future in Britain

Given the range expansion into northwest France, the colonisation of Britain by Little Egrets has been expected for a number of years. Early indications, particularly from Brownsea, are that they are able to breed successfully and that the population may be able to expand quickly, much in the way that it has done in France. The build-up of breeding numbers in Normandy has been phenomenal: an increase of over 100 pairs in three years (see table 3). Also, in Ireland, a colony of 12 breeding pairs was established in 1997, at a site where only one summering individual was present in 1996 (Smiddy & Duffy 1997). Breeding success would also appear to be good—2.6 young per pair in Ireland and 2.4 young per pair in Dorset—comparing favourably with productivity recorded in Camargue in southern France (2.4 fledged young per pair: Voisin 1991).

Table 3. Numbers of breeding Little Egrets *Egretta garzetta* in Normandy (1993–97) (Debout 1997; Philippe J. Dubois *in lit.*)

Year	Number of sites	Number of pairs
1993	2	9
1994	2	30
1995	3	110
1996	3	120
1997	4	120

Outside the breeding season, Little Egrets occupy a large number of sites which could also support breeding pairs. In Brittany and Normandy, a variety of nesting habitats has been used—most frequently high up in broadleaved or coniferous trees, but also low down within reedbed or scrub, and even on rocky islands amongst Tree Mallow *Lavatera arborea*. Many egret colonies are associated with breeding Grey Herons and both British breeding sites and the single Irish breeding site involve tree-nesting egrets associating with heronries. Some egret colonies are isolated from other herons, and on islands the egrets are associated with nesting seabirds. Given such a catholic choice of breeding habitats, lack of suitable sites is unlikely to be a limiting factor and one could expect egrets to have the potential to breed much more widely in southern England.

The British and Irish wintering population is the most northerly in the World. Severity of winter weather and high winter mortality could be a factor affecting future breeding success and limiting colonisation to the north and

east. Experience to date in Brittany suggests, however, that, although prolonged cold spells such as those in 1984/85, 1986/87 and 1996/97 can result in high mortality (e.g. 60% of individuals at Croisic in 1997: Bargain & Gelinaud in press), this has not had a long-term effect on the breeding population, which has continued to increase dramatically.

Protection and management of key wetland sites are essential if further colonisation is to occur, and sites of national importance, including all breeding sites, should be afforded statutory protection. For non-breeding sites (given a population peaking at about 1,000 individuals), about ten birds would represent a 1% level, indicating national importance. As a minimum of 50 individuals is, however, generally accepted for defining sites of national importance, this could also be applied to Little Egrets. Given such criteria, a number of coastal sites in southern England would meet national-importance criteria for non-breeding Little Egrets (e.g. Gannel/Camel, north Cornwall; the Tamar complex, Cornwall/Devon; Teign, Devon; Poole Harbour, Dorset; Langstone/Chichester Harbour complex, Hampshire/West Sussex).

The potential effects of disturbance are unknown, but, particularly during the early critical stages of colonisation, it is essential to adopt a precautionary approach and to seek to keep all current and potential breeding sites free from disturbance. Schedule 1 of the Wildlife and Countryside Act also needs revision to offer full legal protection to this species.

It would seem, therefore, that, if egrets are given adequate protection from disturbance, particularly during the breeding season, they are likely to flourish in southern England in coming decades.

Whilst the precise effects of climate change are difficult to predict and a number of scenarios have been proposed, mild winters would be likely to encourage further overwintering, and increasingly warm summers would be suitable for breeding. If these occur, there may be even greater range expansion, and the Little Egret may become a familiar breeding species along the South Coast, possibly being joined by other southern European species (e.g. Black-winged Stilt *Himantopus himantopus*), before too long.

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