

# Occasional breeding by Western Reef Egret in eastern Spain

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**ABSTRACT** On at least six occasions since the late 1980s, dark-morph Western Reef Egrets *Egretta gularis* of the nominate subspecies *gularis* have been observed during the breeding season at L'Albufera de Valencia, in eastern Spain. Three instances of breeding by mixed pairs of this species and Little Egret *E. garzetta* were recorded, in 1988, 1989 and 1990. In addition, apparent hybrids, with pale grey body and with variably extensive white on the head, wings and underparts (including in adult plumage), have been observed at this site repeatedly since 1993. There is no definite evidence for the occurrence of a dark morph of the Little Egret.

Several species of egret breed regularly in the West Palearctic. The largest of these, the Great White Egret *Egretta alba*, is very local, although it has become considerably commoner and expanded its range noticeably during the last decade,

while the smallest is the Cattle Egret *Bubulcus ibis* of southern and eastern parts of the region. Both species also occur commonly in other parts of the world. By far the most widespread and numerous, however, is the Little Egret *E. garzetta*, which breeds in

southern Europe and eastwards through southern Asia to Australia, as well as locally in Africa, and which has recently colonised southern Britain and parts of eastern North America and the Caribbean. A fourth egret, the Western Reef Egret *E. gularis* is a coastal species, its nominate race breeding in West Africa from Mauritania south to Gabon, and the subspecies *schistacea* occurring from the Red Sea and East Africa east to India.

Of all these white-plumaged species, only the Western Reef Egret is known certainly to occur in both a white morph and a dark morph. Indeed, it is notable that, in the nominate subspecies, the dark morph is by far the predominant form. This egret has a debated taxonomic position, and was regarded as a subspecies of the more widespread Little Egret by Hancock & Kushlan (1984) and, more recently, by del Hoyo *et al.* (1992) and Kushlan & Hafner (2000).

Western Reef Egrets have been recorded regularly in Europe, particularly in the southern countries, such as France (Dubois & Yésou 1992), Italy (Grussu 1993) and Spain (Diaz *et al.* 1996), and more scarcely in others. European records of Western Reef Egrets have, however, been obscured by the observation of dark egrets of uncertain identity, although these have sometimes been identified as dark-morph Little Egrets (Cramp & Simmons 1977; Grussu & Poddesu 1989; Dubois & Yésou 1992). Nevertheless, breeding by confirmed or suspected Western Reef Egrets, apparently paired with Little Egrets, has occurred in France in 1957 and irregularly since 1986 (Dubois & Yésou 1995; Kayser *et al.* 2000). In addition, slate-grey egrets are occasionally present in Little Egret colonies in southwestern Spain (Bernis 1969; M. Fernández-Cruz verbally).

### *Western Reef Egrets in eastern Spain*

L'Albufera de Valencia, in eastern Spain, is a shallow coastal lagoon, 21,000 ha in extent, and is separated from the adjacent Mediterranean Sea by a continuous 30-km barrier



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212. Western Reef Egret *Egretta gularis* of nominate subspecies *gularis* in heronry, l'Albufera de Valencia, east Spain, June-July 1988.

island. Some time after the sixteenth century, the salinity of the lagoon waters altered as a result of freshwater catchment from inland tributaries and the building of sluices at the outlets, the latter designed to prevent seawater inflow and to favour agricultural uses. About 70% of the original lagoon surface has been transformed, through drainage and impoundment, mostly into rice fields. The remaining lagoon has dense stands of halophytic vegetation in the form of beds of Common Reed *Phragmites australis*.

Seven species of heron (Ardeidae) breed at l'Albufera de Valencia (Dies *et al.* 1999), their total population perhaps exceeding 6,000 pairs. These include up to 15% of the Spanish breeding population of Little Egret and Squacco Heron *Ardeola ralloides* and 30% of the country's Grey Herons *Ardea cinerea* (Prosper 2000). Colonies are situated on top of reedbeds within the lagoon water-



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213 & 214. Western Reef Egret *Egretta gularis* of nominate subspecies *gularis* in heronry, l'Albufera de Valencia, east Spain, June-August 1990.



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body, occupying islands or extensive reedbed fringes at the shores. Excluding the Grey Heron, which starts nest-building in December, the heronries are reoccupied during April. During the last decade or so, the breeding population of Little Egret in l'Albufera de Valencia ranged between about 900 and 3,000 pairs (Dies *et al.* 1999).

Since the late 1980s, Western Reef Egrets of the nominate West African subspecies have been observed during the breeding season at this site. Single adults were recorded from 26th June to 29th July 1988 (plate 212), from 10th June to 1st August 1989, from 14th June to 9th August 1990 (plates 213 & 214), from 17th April to 1st July 1991, and on 6th May 1995; and a subadult was present in 1999, from 24th May to 17th June. All of these individuals were of the dark grey (slate-grey) morph, with white restricted to the chin and, to a variable extent, the upper throat and lower ear-coverts. They showed a greenish to yellowish colour on the lores, and had a deep-based, blackish to brownish bill with paler tip.

On three occasions during this period, breeding by Western Reef Egret was confirmed, in each case apparently paired with a Little Egret. In 1988, a mixed pair was present at a nest containing two chicks; in 1989, a mixed pair attended an inaccessible nest; and, in 1990, an adult Western Reef Egret attended a nest with four chicks.

There is no detailed description of the hybrid juveniles produced in these three instances of breeding, although chicks found in 1990 were noted as having a pied plumage. Nevertheless, observations of suspected hybrid egrets have been made repeatedly at l'Albufera de Valencia since 1993. These individuals exhibited odd-coloured plumage, with a pale grey body and with white of variable extent on the head, wings and underparts, even in adult plumage. Their bare-part colours did not differ from



those of Little Egret. Records considered to relate to hybrids involve the following: a subadult on 2nd-16th May 1993, a juvenile on 22nd August 1994, a juvenile on 16th August 1995, an adult on 18th June 1997, and a subadult from 26th November 1997 to 3rd March 1998 (plate 215).

In June 1992, a juvenile Little Egret showing some ash-grey colour in the plumage was found in a colony at l'Albufera de Valencia. The grey colouring extended to a few upperpart feathers, with small grey tips to the wing-coverts, and some grey marks on the scapulars, the tertials and the outer web of some secondary feathers (plate 216). This egret, which we captured and marked, subsequently moulted into normal adult Little Egret plumage, without showing further grey traces, and with adult bare-part colours also matching those described for Little Egret. It was recorded regularly until 1996.

### Concluding remarks

The existence of a dark morph of the Little Egret has in recent years been considered by no means well founded (Yésou & CHN 1986; Grussu 1993; Magyar & Yésou 2000). Furthermore, Parasharya & Naik (1984) reported interbreeding between Little Egret and Western Reef Egret of the eastern subspecies *schistacea* in Gogha, western India, in a syntopic transitional zone between inland regions and the coast, where Little Egrets had entered colonies of *schistacea*. Those authors suggested that juvenile Little Egrets with grey-splashed plumage were the result of a regular gene flow from coastal populations of reef egrets. The dark marks on the juvenile in eastern Spain, described above (see also plate 216), are certainly not usual for Little Egret, and are thought to be a sign of hybridisation (P. Yésou *in litt.*).

Intriguingly, a group of Little Egrets observed well inland in southeastern Morocco in April 1997 contained a single dark-morph individual which appeared to be identical in structure and bare-part coloration to the accompanying white egrets, and was considered more likely to be a Little Egret than a Western Reef Egret (van den Berg 1999). Unfortunately, the matter is complicated by the fact that some Western Reef Egrets of the nominate race can be almost impossible to separate from Little Egrets, even by structure and bare parts (Dubois & Yésou 1995). On the other hand, one could question the likelihood that a reef egret, typically a coastal bird, would turn up 400 km from the sea.

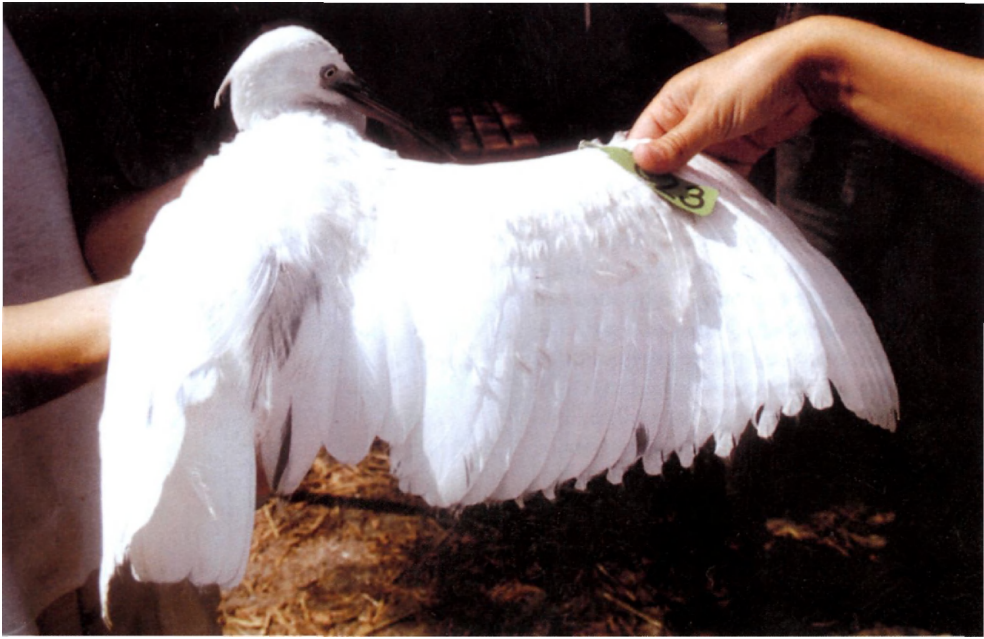
An interesting article on this subject was published by Crewe (2001), who recognised the magnitude of the problem while by no means dismissing the possibility that the Little Egret could occur, albeit extremely rarely, in a dark morph.

It is hoped that this additional evidence from l'Albufera de Valencia of the presence of the Western Reef Egret in southern Europe, and its occasional breeding there in mixed pairs with Little Egret, may help to further a better understanding of the identity of these dark egrets.



215. Suspected hybrid between Little Egret *Egretta garzetta* and Western Reef Egret *E. gularis*, l'Albufera de Valencia, east Spain, March 1998.

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216. Little Egret *Egretta garzetta* showing grey-marked plumage, l'Albufera de Valencia, east Spain, June 1992.

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