

FIRST BREEDING RECORD OF BLACK-CROWNED NIGHT-HERON *NYCTICORAX NYCTICORAX* (LINNAEUS, 1758) AND LITTLE EGRET *EGRETTA GARZETTA* (LINNAEUS, 1766) IN LIGURIA (NORTH-WEST ITALY) WITH SOME NEW DATA ON GREY HERON *ARDEA CINEREA* LINNAEUS, 1758

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ABSTRACT

In this note the authors present the first breeding records of Black-crowned Night-heron *Nycticorax nycticorax* and Little Egret *Egretta garzetta* in the Liguria region (North-West Italy). Reproduction of the former species was ascertained in one site, while nests of the latter were found in two localities. The breeding sites are in the Savona province, close to the border with Piedmont, and they are located in a very anthropized area. Some new data on the nesting of Grey Heron *Ardea cinerea* are also reported.

KEYWORDS: Ardeidae, Heronry, Nesting case, Savona, Piedmont.

SHORT NOTE

The two species of Ardeidae, the Black-crowned Night-heron *Nycticorax nycticorax* (Linnaeus, 1758) and the Little Egret *Egretta garzetta* (Linnaeus, 1766) are long range migrants, mostly wintering in Africa (Brichetti & Fracasso, 2003).

The Night-heron is present on every continent apart from Australia and Antarctica and it can be found in a multitude of different habitats (Hothem et al., 2020). In the last decades this species has showed an overall loss in European population numbers, but at the same time it has colonized new breeding sites (Keller et al., 2020). It reaches the highest nesting density in North-West Italy, where in 1990 the largest known European colony was recorded (Keller et al., 2020) and where it is mostly tied to aquatic habitats rich in rice cultivations (Brichetti & Fracasso, 2003). In Italy this heron is considered a migratory, breeding and wintering species, while in Liguria it is a regular migrant and it winters irregularly (Baghino et al., 2012; Brichetti & Fracasso, 2015).

The Little Egret has a Palearctic-Australasian distribution (del Hoyo et al., 2020). It is found in Europe, Africa, the Middle East, South East Asia and Australia, and seems to be in the process of colonizing the Americas. It favours wetland habitats with shallow water, and occasionally open fields (del Hoyo et al., 2020). This species has expanded its range across Europe, particularly towards the North of the continent (Keller et al., 2020). In Italy on the other hand, its population increased until a sudden stop at the end of the 20<sup>th</sup> century, (Fasola et al., 2010). Currently, it is declining all over the continent, particularly in Italy and in the Iberian Peninsula (Keller et al., 2020). In Italy the Little Egret is a migratory, breeding and wintering bird,

where it is more common in the North. In Liguria it is considered to be a regular migrant, wintering, and summering species (Baghino et al., 2012; Bricchetti & Fracasso, 2015).

To date, the only breeding species of the family Ardeidae known in Liguria was the Grey Heron *Ardea cinerea* Linnaeus, 1758 (Baghino et al., 2012). The reproduction of this species had been recorded for the first time in Valle Stura in 1992 (Andreotti & Bozzano, 1995) and it has been further confirmed in other parts of the region (Spanò & Truffi, 1999; Maranini et al., 2005; Sartore & Galli, 2012).

The Little Bittern *Ixobrychus minutus* (Linnaeus, 1766) is considered a possible irregular breeder according to the regional check-list (Baghino et al., 2012), due to some old doubtful observations reported in the last century in some areas of the region (Spanò & Truffi, 1987; Aa. Vv., 1989). There is also an old record of the Eurasian Bittern *Botaurus stellaris* (Linnaeus, 1758) breeding in the La Spezia area, but this information has never been confirmed (Aa.Vv., 1989).

During the spring 2022 we observed the first breeding pairs of Black-crowned Night-heron and Little Egret. The nesting site was located in the western part of the region, in San Giuseppe di Cairo, in the inland of the Savona province (Figure 1). The heronry was at an elevation of approximately 340 m along the Bormida river, close to an artificial dam in a very anthropized site, characterized by urban settlements. The nests were built on Black locust trees *Robinia pseudoacacia*, similarly to heronries in other areas of Northern Italy (Bricchetti & Fracasso, 2003).



Figure 1. The heronry in San Giuseppe di Cairo (03 May 2022 – photo E.F. Zucchetti).

On the 20<sup>th</sup> of April, the first four individuals of Little Egrets were seen, two of them already on nests. Since then, the site was monitored regularly, with at least one survey every 10 days from April to July. On the 1<sup>st</sup> of May the first six Night-herons were observed bringing nesting material and performing courtship displays (Figure 2).



Figure 2. San Giuseppe di Cairo: Black-crowned Night-herons displaying (03 May 2022 – photo E.F. Zucchetti).

The first Night-heron nest was observed on the 22<sup>nd</sup> of May, and a total of five nests was recorded throughout the observation period. The first chicks were observed on the 10<sup>th</sup> of July, with at least seven hatchlings in three nests (Figure 3). At least eight herons successfully fledged out of the five nests.

Little Egret chicks were first observed on the 1<sup>st</sup> of June, with the presence of at least three hatchlings in one of the at least six nests recorded. At least seven birds managed to successfully fledge, however, the total number of fledged birds was very difficult to determine due to the position of the nests and the amount of foliage around them.

The Grey Heron's reproduction was also recorded in this locality.

On the 1<sup>st</sup> of February, four Grey Herons were seen roosting on nests in the late evening. On the 13<sup>th</sup> of March, four more individuals were observed sitting on fully constructed nests. The first juveniles were observed in the nest on the 1<sup>st</sup> of May. At least nine nests of this species were present, all with chicks successfully hatched.



Figure 3. San Giuseppe di Cairo: Black-crowned Night-heron with chicks (10 July 2022 –photo E.F. Zucchetti).

As reported in other studies (e.g.: Beraudo & Caula, 2014) in this mixed species heronry, Night-herons occupied the lower levels of the trees and Grey herons the canopy, while the Little Egrets nested at mid-level height.

During the same period, the reproduction of the Little Egret was also recorded in another site about 6,7 km away, in Millesimo, at approximately 430 m a.s.l.

The area was on the Millesimo Lake, a small artificial hydroelectric basin along the river Bormida, with a vegetation composed mostly by poplar *Populus* sp. and alder trees *Alnus glutinosa*. The eastern shore is partially anthropized while the western one is more wooded and undisturbed. This locality was already known for the only breeding colony of Great Cormorant *Phalacrocorax carbo* found in Liguria (Demicheli & Sartirana, 2019) and it is a further nesting site for the Grey Heron. Surveys in this area were much less frequent and due to the difficulty of observing the nesting site hidden by dense foliage and falling under private properties. Night-heron breeding was not confirmed here. However, one individual of this species was observed on the 15<sup>th</sup> of May and two other individuals on the 1<sup>st</sup> of June in suitable breeding habitat and period in the central part of the colony. Moreover, five nests of Grey Heron were counted. At least six Little Egret nests were recorded and chicks were first observed on the 8<sup>th</sup> of July when they were already starting to fledge.

Both sites are located close to the border with the Piedmont region (Figure 4), where heronries of both species observed as new breeding in Liguria were already known (Caula & Beraudo, 2014).

In particular, in the Cuneo province (Piedmont), there are four known nesting sites of Night-herons and five of Little Egrets (Beraudo pers. commun.). The most numerous colonies are

located respectively in Racconigi and Sant’Albano Stura. The closest nesting site of Little Egret is in Morozzo, about 45 km NW of Cairo Montenotte (Beraudo com. pers.), while for the Night Heron it is located in Clavesana, about 30 km from the new sites (Caula & Beraudo, 2014).

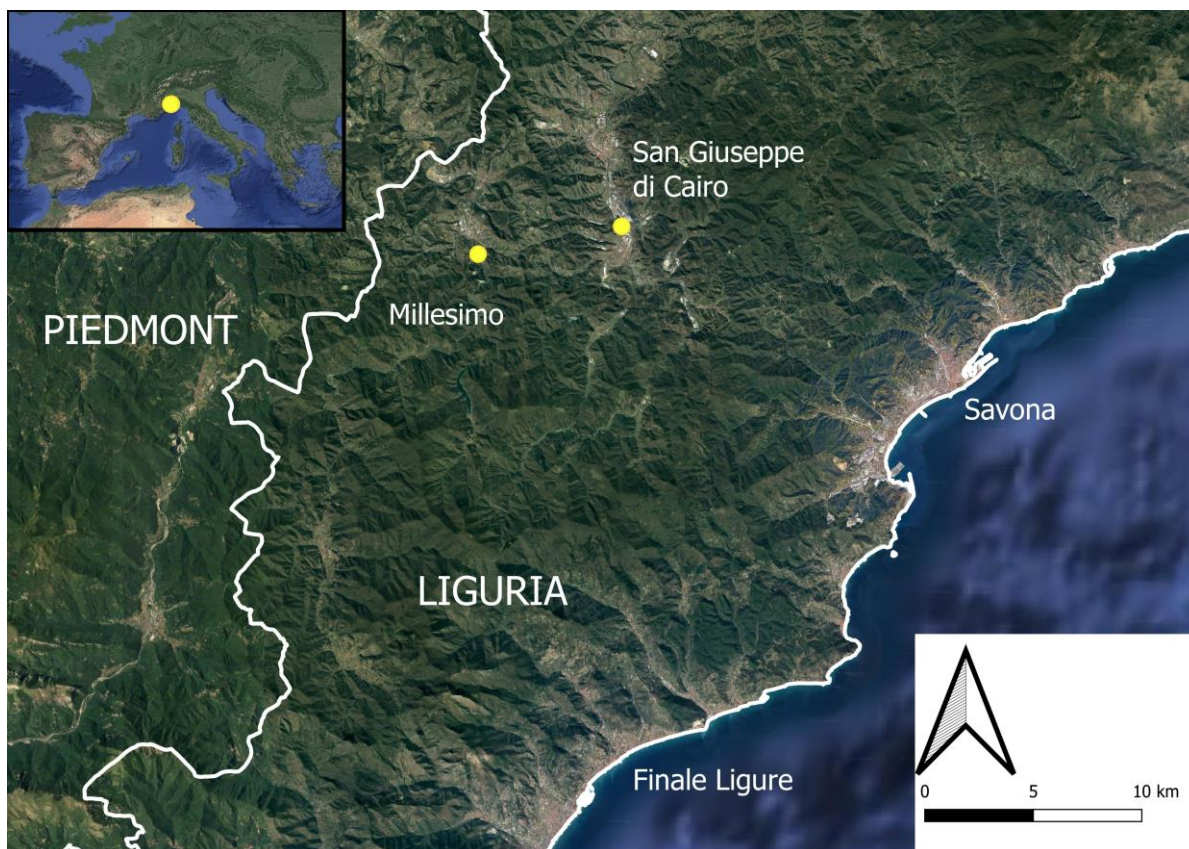


Figure 4. Location of the two heronries.

Until now there was no information on the successful reproduction of these two species in Liguria, although both commonly breed in other regions of Northern Italy, like Piedmont, Lombardy, Veneto and Emilia Romagna (Fasola et al., 2002; Brichetti & Fracasso, 2003). Liguria does not have large freshwater areas and most of its territory is probably unsuitable for the reproduction of the Black-crowned Night-heron and the Little Egret. The new breeding records reported in this note can be framed in the increase of the distribution all around Europe of both these two species. It is important to monitor the possible further development of the Ligurian breeding populations of these species especially in relation to their conservation importance, since they are both listed in annex I of Directive 2009/147/EC.

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