

FIRST CASE OF SUCCESSFUL BREEDING OF THE GREAT CORMORANT
PHALACROCORAX CARBO SINENSIS IN LIGURIA (NW ITALY)

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ABSTRACT

The first breeding record of Great cormorant (*Phalacrocorax carbo sinensis*) in Liguria (Northern Italy) is reported.

KEY WORDS: Liguria (NW Italy), breeding, great cormorant.

SHORT NOTE

There are two subspecies of great cormorant (*Phalacrocorax carbo*) in Europe: *Phalacrocorax carbo carbo* (Linnaeus, 1758), mainly distributed in Scandinavia and in Great Britain and *Phalacrocorax carbo sinensis* (Staunton, 1796), common in the rest of Europe (Brichetti & Fracasso, 2003).

Both subspecies are present in Italy; the first one is migratory and wintering while the second is also breeding (Brichetti & Fracasso, 2003).

So far, in Liguria (Northwest Italy) *P. c. sinensis* was considered a regular migrant and wintering bird (Baccetti, 1988; Baghino et al., 2012) and no breeding attempts were recorded.

In 2017, during the monitoring activity of the species in some managed waterways carried out by Ce.S.Bi.N. s.r.l. for the Ligurian Regional Administration (Demicheli et al., unpub.), we discovered the first breeding site at the Lake Millesimo (Savona Province – Fig. 1). This lake is a small artificial hydroelectric basin (0.1 km² surface - 6 m max depth) along the river Bormida di Millesimo, at 430 elevation. This lake has muddy banks with poplar and alder trees; the eastern shore is flat and partially anthropized while the western one is steeper, more wooded and undisturbed. This site was already known for the presence of a grey heron (*Ardea cinerea*) heronry, as well as for a nocturnal roost of great cormorant (IWC archive – ISPRA, unpub.). We monitored this area from October 2016 to May 2017 (observations with visual census technique using binoculars) in order to verify the number of great cormorants present on the nocturnal roost at sunset. In the same period, during the day, we monitored also the nearby Lake Osiglia, which is located about 5 km south of Lake Millesimo. This basin is an artificial lake 3 km long and 0.2 km wide, with a maximum depth of 65 m. Its shores are mostly steep and wooded, with chestnut and beech trees.

On December 2017 in the Lake Osiglia that is regularly exploited by great cormorants for fishing, we found a new nocturnal roost on some trees located on the western shore.

At the beginning of February (06th February 2017) in the same area, the first indication of a breeding attempt by the great cormorant was recorded: two males in breeding plumage were seen courting two females. In the same day at sunset, in the nocturnal roost of Lake Osiglia 27

great cormorants were counted. Such number was particularly high, compared to the average value of 12 individuals (MAX=21, MIN=0) observed in the period between the 13th December 2016 and the 30th January 2017. In the nocturnal roost of the Lake Millesimo in the same day, 14 individuals were counted at sunset, compared to an average of 20 individuals (MAX=30, MIN=0) recorded in the period between the 12th October 2016 and the 30th January 2017.

During the following inspection, on the 27th February 2017, 23 great cormorants were found again at the nocturnal roost of Lake Osiglia. However all the individuals roosted on fallen branches and rocks along the shore close to the trees previously used for rest.

At the Lake Millesimo the nocturnal roost was no longer attended. However, 28 individuals were observed on some trees close to some large nests (presumed to be of grey heron) already observed in the past. In this occasion, 17 nests seemed to be occupied by single individuals or pairs of great cormorant. Moreover, on the same trees in other nests also eight grey herons were spotted.

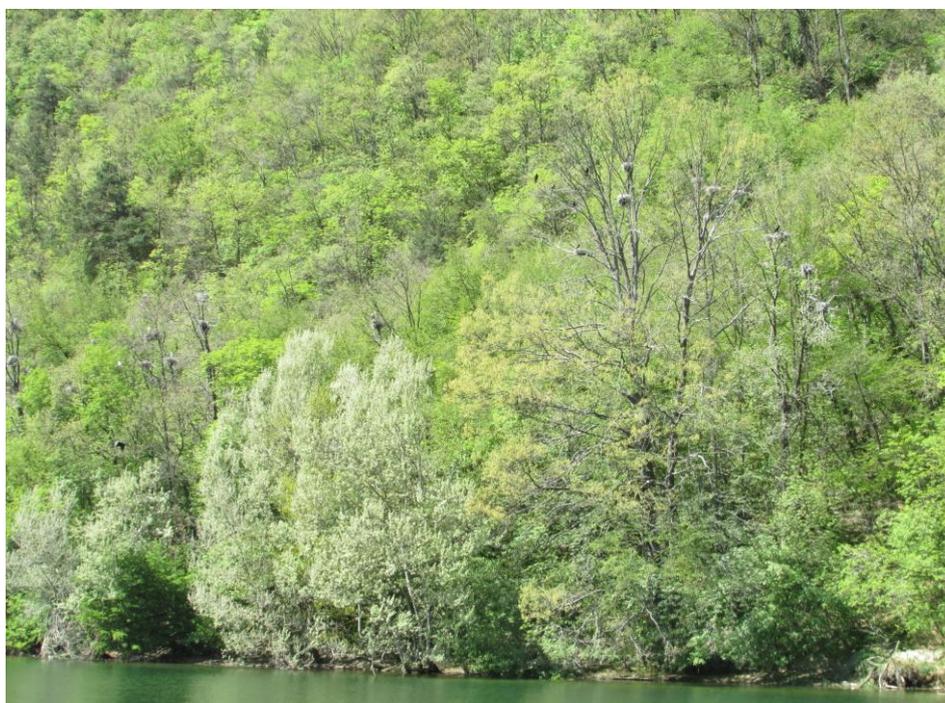


Figure 1. Nesting site in Lake Millesimo (Savona Province; F. Demicheli).

On the 15th March 2017, we observed only six great cormorants in the evening on the shore of Lake Osiglia, while 41 were counted in the Lake Millesimo. 23 nests (many of them newly built) were occupied by individuals or pairs and five grey herons were spotted in five nests.

On the 28th March 2018 at Lake Osiglia the situation was almost unchanged (seven great cormorants on the shore in the evening), while at the Lake Millesimo the nests occupied by great cormorants were 34, with 48 individuals observed. Also nine grey herons were present, six of which in as many nests.

In the evening of the 12th April 2017 at the roost of Lake Osiglia no great cormorant was observed, while at the Lake Millesimo 37 nests were occupied by clutches. Several flights for

feeding purposes were observed to and from the nests. In the late evening, there were 58 great cormorants and at the same time also 33 grey herons were seen in at least 10 occupied nests.

We confirmed the successful breeding of the great cormorant on the 04th May 2017, the last day of the monitoring activity at the Lake Millesimo. During that day, despite the thick covering of leaves, 38 nests, occupied by one–two or maybe three chicks each, were observed, some apparently ready for fledging. On this date the presence of grey herons was not confirmed.

The considerable number of nests observed leads us to hypothesize that the first breeding settlement may have happened at least the previous year, in analogy to what was recorded in the nearby Piedmont in the last decades (Alessandria et al., 2001) where the number of breeding pairs in colonies increased yearly, starting from a few nests built by a small number of individuals. In particular, the closest breeding sites of great cormorant were recently recorded in the Cuneo Province in the municipality of Clavesana (Beraudo & Giammarino, 2011) just few years before the Lake Millesimo colony.

REFERENCES

- Alessandria G., Carpegna F. & Della Toffola M., 2001. Il Cormorano *Phalacrocorax carbo* nella Regione Piemontese. Parte II. Distribuzione e biologia della popolazione nidificante (Aves, *Phalacrocoracidae*). Rivista Piemontese di Storia Naturale 22: 261-280.
- Baccetti N., 1988. Lo svernamento del Cormorano in Italia. Suppl. Ric. Biol. Selvaggina XV: 39-43.
- Baghino L., Borgo E., Bottero M., Galli L. & Valfiorito R., 2012. Check-list degli uccelli di Liguria. Rivista Italiana di Ornitologia 81 (1): 15-42.
- Beraudo P. L. & Giammarino M., 2011. Primi casi di nidificazione del Cormorano *Phalacrocorax carbo* in Provincia di Cuneo (Piemonte Sud-Occidentale). Picus 37 (71): 33-34.
- Brichetti P. & Fracasso G., 2003. Ornitologia italiana. Vol. 1 – *Gavidae - Falconidae*. Alberto Perdisa Editore, Bologna.
- Demicheli F., Capurro M., Duradoni D., Oneto F. & Ottonello D., Unpub. Progetto *Phalacrocorax* – Conoscenza, Gestione e Convivenza. I annualità. Relazione finale. 2017. Pp:72.