

# First breeding records of Northern Gannet *Morus bassanus* in Italy

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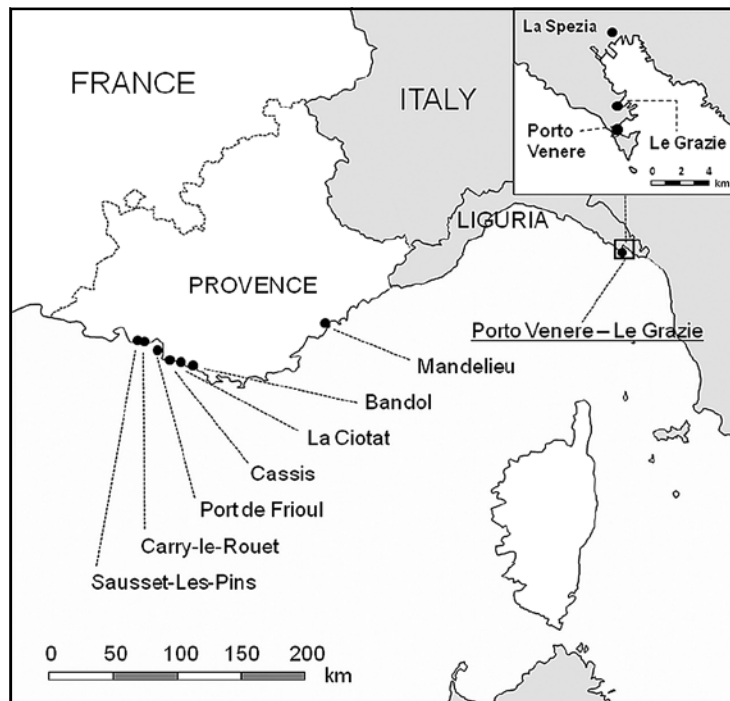
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Archaeological records reveal that the Northern Gannet *Morus bassanus* was breeding in the Mediterranean Sea in prehistoric times (Alcover *et al.* 1992). However, by the early twentieth century the species was no longer breeding in the region (Gurney 1913). Re-colonisation occurred in the 1990s with reports of breeding attempts (Fernandez & Bayle 1994) some of which were successful (Dhermain *et al.* 1996, Zotier *et al.* 1996, Bouillot 1999). Thus a few pair started to breed regularly on the southern coast of Provence (France), at Sausset-Les-Pins (Vidal 1995, Renaud *et al.* 2006) and Carry-le-Rouet (Deideri *et al.* 2014) (Fig. 1). Throughout most of the Northern Gannet's breed-

ing range birds nest on cliffs or skerries (Nelson 1978). In contrast, nests in Provence were closely associated with man-made structures such as jetties, floating docks and boats.

In this note we document a further re-colonization of the Mediterranean by Northern Gannets with the first recent breeding records in Italy at Porto Venere and Le Grazie, eastern Liguria, with birds again nesting in harbours, rather than natural habitat.

Northern Gannets were first recorded in Italy in June 1993, when an individual was seen for several days in the village of Le Grazie (1 km away from Porto Venere, Fig.



**Figure 1.** Location of the Italian breeding site of Northern Gannets, compared to known successful or attempted breeding sites along the coast of southern France.

1). The bird was clearly trying to establish a breeding territory because it performed many of the species' highly ritualised site ownership and breeding displays (Nelson 1978, Giagnoni pers. obs.).

In spring 2011 the first proper nesting attempt was recorded at Porto Venere. The attempt was unsuccessful as was the one in 2012 when a single individual built a partial nest in the harbour at Porto Venere. In 2012 Northern Gannets were also recorded at Le Grazie where a pair nested on a tarpaulin cover of a pleasure boat moored in the middle of the bay. The nest was occupied from the beginning of April and abandoned on 16 June. Fragments of eggshell were subsequently found among the remains of the nest providing the first evidence of breeding.

In January 2013, two Northern Gannets were again observed on a pleasure boat covered by a blue tarpaulin moored in the bay of Le Grazie. However, in April, an individual was found dead in a garbage bin in Le Grazie after which Northern Gannets were not seen in the bay. This disappointing outcome was offset by the first record of successful breeding on a pleasure boat moored about 10 meters from the shore at Porto Venere. The nest was daily checked and the chick was first seen on 21 May and fledged on 10 September. This exceptional event was reported by local TVs and newspapers, discussed at the 39<sup>th</sup> Congress of Italian Society of Biogeography held in Rapallo (29-31 May 2013) and mentioned in Massa (2015).

The Porto Venere site was again occupied in 2014 with the pair starting to build the nest on a boat in mid February

and copulations recorded on 22 and 24 February. A chick was first seen on 20 May but fell off the boat on 3 August when it was too young to fledge successfully.

In 2015, the pair bred at the same site as the past three breeding seasons (Fig. 2), despite severe disturbance in February (removal of the half-built nest, replacement of the boat). The chick was observed for the first time on 15 May and fledged on 9 August, markedly earlier than the previous successful breeding attempt. The juvenile was seen for the last time on 27 August. In addition to the breeding pair an unpaired individual made a partially built nest each spring, selecting boats moored very close to the boat with the breeding pair on it.

Details of the first four breeding attempts of Northern Gannets in Italy are summarized in Tab. 1, the last three relate to the same site-faithful pair, that were recognisable after ringing in 2013 by ringers from the National Institute for Environmental Protection and Research.

All breeding attempts were made in close association with harbours, with Northern Gannets exploiting boat decks or tarpaulins. This choice of nesting sites probably did not depend on unavailability of natural habitat in the area; in fact the terraced cliffs of Palmaria Island and the promontory of Porto Venere appeared suitable. Similar exploitation of man-made nest sites whilst unusual has also recently been recorded in the English Channel (Palmer 2001) and the Baltic (Lyngs in press) as well as the French colonies in the Mediterranean. Nest material used by birds breeding in Italy also reflected this anthropogenic link with



**Figure 2.** Pair of Northern Gannets with their chick on a boat in Porto Venere harbour, June 2015. Courtesy of Ercole Buoso.

**Table 1.** Breeding records of Northern Gannets in Italy between 2012 and 2015.

Year	Location	Chick hatched	Date of hatching	Date of fledging	Fledging period (in days)
2012	Le Grazie	no, disturbed mid June	-	-	-
2013	Porto Venere	yes	mid May	13 September	110
2014	Porto Venere	yes	20 May	no (last report: 3 August)	-
2015	Porto Venere	yes	10-15 May	9 August	86-91

nylon netting, pieces of ropes, and wooden sticks being prevalent.

The average fledging period for Northern Gannets is 90 days (range 84-97 days) (Nelson 1978). Thus the fledging period of the chick that fledged in 2013 (110 days, Tab. 1) was markedly longer than normal. Although the 2015 chick fledged at 86-91 days, i.e. within the normal range, it remained in the area for several weeks longer. Northern Gannet chicks normally leave the vicinity of the breeding colony very rapidly to avoid attack from adult birds (Nelson 1978), so this post-fledging behaviour is also unusual for the species.

Although reproductive pairs of Northern Gannet have bred in France since longer time, the historical occurrence in eastern Liguria during breeding period is almost contemporary. The habit to nest in a harbour, as observed in Porto Venere, further suggests that the individuals of these distinct sites (250-400 km far) could have originated from the same group of birds which colonised the region and possibly belong to the same population.

The origin of the Italian population is currently unknown but collection of tissue samples (e.g. blood or feathers) might elucidate this. Some Northern Gannets from colonies in northern France, Ireland and the UK winter in the Mediterranean, so Italian colonists may have been birds that did not make the northward migration but remained in the Mediterranean attracted to harbours by discards from fishing boats.

Boat-owners, local authorities and several volunteers have all contributed to the successful establishment of Northern Gannets in Italy by making boats available for nesting until September which has prevented disturbance or illegal killings. Nevertheless, allowing Northern Gannets to breed on boats is debatable, as their presence can exacerbate conflicts with human activities, yachting in particular. A potential solution to this conflict might be to build artificial platforms in harbours and encourage birds to use these. The closely related Australasian Gannet *Morus serrator* which in 1966 colonised a man-made

light in Port Philip Bay, Victoria (Australia), now breeds on purpose-built platforms in the bay (Nelson 1978).

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