



ORNITHOLOGY

The wintering of Barn Swallow in France

10 April 2026

By Philippe J. Dubois



Barn Swallows, Portugal, February 2025 (© Hélio Batista)

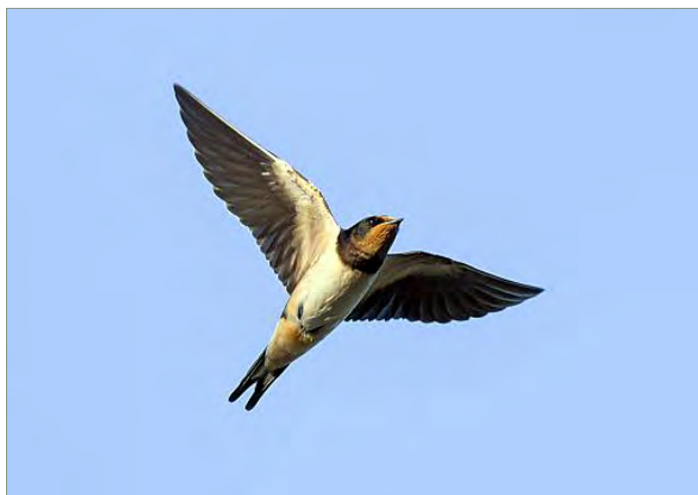
Barn Swallow (*Hirundo rustica*) breeds across almost the entire Northern Hemisphere (Brown & Brown 2020). In Europe, it breeds throughout the continent, with the exception of the far north-east, Iceland and Svalbard (Keller *et al.* 2020). Similarly, in France, the species is widespread, occurring up to 1,800 m in the Alps and on most islands (Barnagaud 2015). The French breeding population tends to winter in Central Africa, but also in West Africa (Gore 2022). Spring migration begins as early as late February and continues until late May, mainly from late March to mid-April. In autumn, the migration takes place from late August to late October, but mainly during the month of September. Stray birds are observed throughout the autumn, until early November, after which records become very rare, including in winter.

Historically, no wintering Barn Swallows have been reported in France (Mayaud 1936, 1953). Until the early 1990s, there were only exceptional cases of wintering, dating back to the 1960s (Dubois *et al.* 2008), although the details were rather limited. The cases mentioned are only recorded in detail from the 1980s onwards, and most of the records concern birds seen for just one or two days, which may correspond to very late or very early migrants (Jarry 1991). Before the 1990s, actual cases of wintering were therefore rare and mainly concerned the Mediterranean coast, whilst elsewhere they were exceptional, for example in the Somme or Loire-Atlantique (IOF, unpublished).

The first well-documented cases were recorded in Brittany, in Finistère, during the winter of 1998–1999 (Le Corre & Quiviger 2000) and again from the winter of 2006–2007 in the same area near the village of Guissény (Ballot 2008). From that date onwards, cases have been better documented and appear to be more numerous. In this context, we felt it would be worthwhile to compile an inventory of these records and to examine whether there was a temporal trend towards an increase in such wintering events, to specify their locations and to explore some hypotheses regarding their causes and future prospects.

I – Methodology and limitations

The collection of winter data was based on ornithological literature and observations submitted to the 'Faune' databases. We included only those covering the period 15 December–15 January (*i.e.* 32 days). Indeed, before 15 December, there are quite a few birds that are seen on only a single day and are likely to be late migrants. Similarly, after 15 January, records may correspond to very early spring migrants. We are well aware that the date range is narrow, but it best corresponds to what might be called the *middle of winter*. Of course, birds recorded during this period, which are potential winter visitors, may also have been observed before 15 December, as well as after 15 January. We therefore checked, in the case of sightings on 15 December and 15 January, whether the individuals had been seen before or after those dates.



Barn Swallow, Gironde, December 2024 (© Jacques Dubos)



Barn Swallow, Maine-et-Loire, December 2015 (© Jean-Claude Beaudoin)



Barn Swallow, Hautes-Pyrénées, December 2023 (© Benjamin Long)



Barn Swallow, Vendée, December 2024 (© Gérard Besseau)

Data relating to one or two consecutive days of observation were excluded from the analysis. There are indeed a great many such records (Fig. 1), and they may concern late or early migrants. However, there is nothing to rule out the possibility that a single observation might concern a winter visitor whose range of movement is sometimes quite extensive; this is notably the case for a series of single observations made over several consecutive years in the commune of Lanrivoaré (Finistère) in the 2010s. The analysis therefore focuses on birds observed for three days or more. The different duration categories (in days) are 3-5, 6-10, 11-20 and over 20 (>20). We can thus consider that wintering is confirmed for observations lasting more than 10 days, whereas for shorter periods it is merely potential (we might also refer to this as a wintering attempt).

The numbers analysed are the maximum numbers. Indeed, these numbers sometimes fluctuate throughout the winter (see below). Cases of wintering occurred between the winters of 1981-1982 and 2025-2026, with a gap between 1988-1989 and 1994-1995. This is because we found no confirmed cases of wintering for this period and, more generally, there is little information on the species' winter presence. It would undoubtedly have been necessary to carry out a systematic search of local, departmental and regional journals, as there were no computerised, freely accessible databases at the time. In the analysis of the data series, we therefore chose not to include data collected prior to the winter of 1994-1995 in order to avoid this break.

It was useful to analyse cases of wintering and the trend in winter temperatures over a significant time span (32 years). We used the DJF index (December-January-February), which represents average winter temperatures, extracted from open climatological databases or the national series produced by Météo-France. It is a fairly basic index, but one that provides an initial overview of the trend in winter temperatures in France over time. Finally, rainfall can also influence the availability of food (insects) for swallows. The data used were extracted from the same databases, selecting those that were readily available (notably Brittany and the Pays de la Loire region).

II - Results

II-1. Winter distribution in France

Figure 1 shows that in the depths of winter, the majority of observations are made along the French Atlantic coast (including northern Finistère, on the edge of the English Channel), followed by the Mediterranean coast, then the western and central English Channel coasts, and finally, inland, mainly in the South-West. If we then focus primarily on wintering cases as we have defined them (≥ 3 days of stay), there are 89 such cases for the period in question. Their distribution (Fig. 2) shows a very clear predominance of the French Atlantic coast (64 cases, or 72% of the total). Adding the other 'western' departments (those on the mainland and those along the Channel coast) yields 81 wintering cases, or 91% of the total. Contrary to what the historical literature suggests, the Mediterranean coast remains a marginal region for the wintering of the Barn Swallow in France.

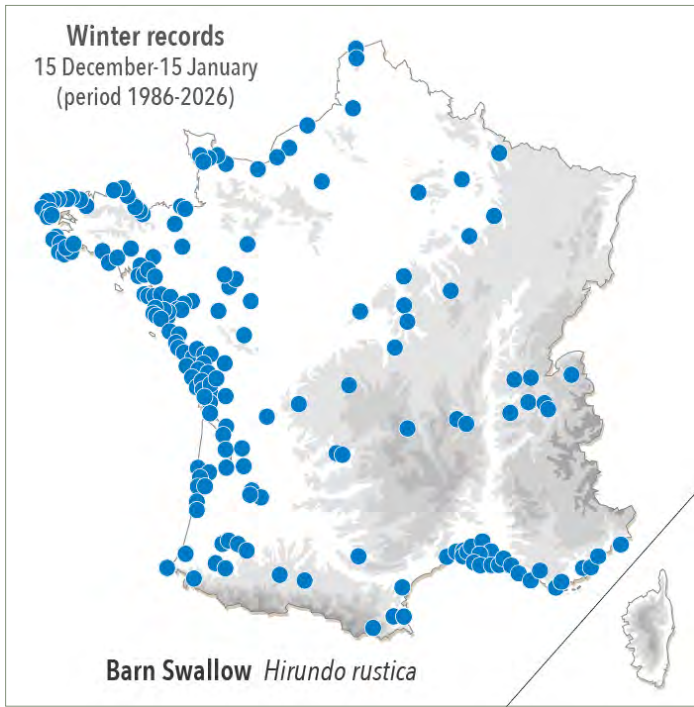


fig. 1. Distribution of 'winter' records (15 December-15 January) of Barn Swallow in France during the period 1986-2026 (this also includes records spanning only one or two days)

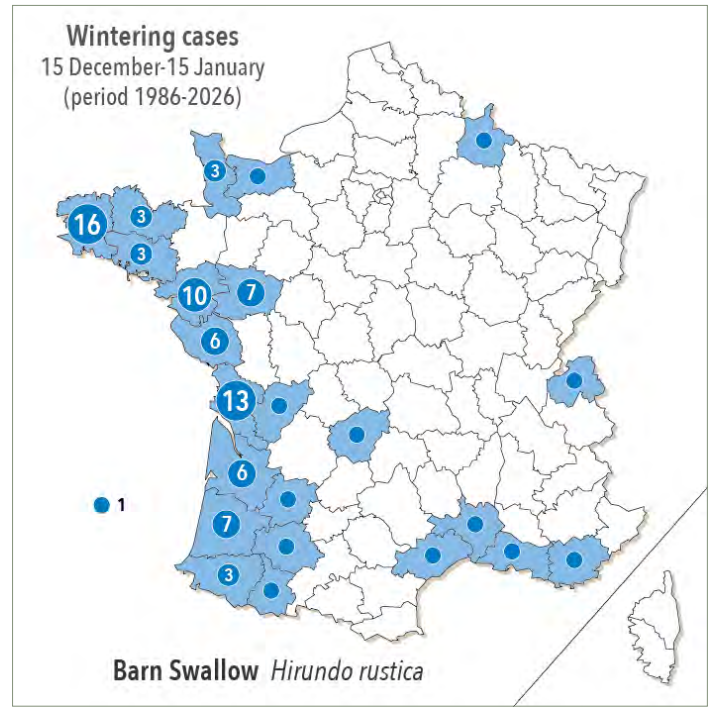


fig. 2. Distribution of wintering records (> 3 days between 15 December and 15 January) of Barn Swallow in France during the period 1986-2026

II-2. Length of stay

As noted above, we have only taken the middle of winter into account for the analysis of wintering. The maximum stay for an individual is therefore 32 days (15 December-15 January). However, for observations ending on 15 January, we checked whether the bird in question was still present beyond that date. The average length of stay for wintering Barn Swallows is 15 ± 8.5 days ($n = 82$), suggesting a prolonged stay, which, given the period, is equivalent to wintering. Figure 3 shows that 63% of the wintering birds remained at the same site for more than 10 days, confirming their status as wintering birds, in the absence of any migratory period. The length of stay ranged from 3 days (minimum threshold) to 32 days (maximum threshold), but, for many birds observed up to this date, the stay extended into February (and until the end of that month in at least one case). It is also possible that, from mid-January onwards, the migratory impulse may resume and prompt the birds to leave their wintering grounds. Furthermore, mortality during the wintering period may also have an impact on it (see below).

II-3. Numbers

The number of Barn Swallows wintering at a single site remains very small (Fig. 4). Of the 89 known cases, 28% involve a single individual, 29% two birds and 28% three to five individuals. Groups of more than five swallows are rare (15% of the total) and exceed ten only in 7% of cases. The largest groups observed were: 11 birds in Blaye (Gironde) in late December 2017, 16 in Donges (Loire-Atlantique) in December 2021, 18 at Saint-Jean d'Angle (Charente-Maritime) in early January 2020 and 25 at Donges (Loire-Atlantique) in December 2020. It should be noted that, in most cases, numbers tend to decline, sometimes sharply, as winter progresses (mortality?).

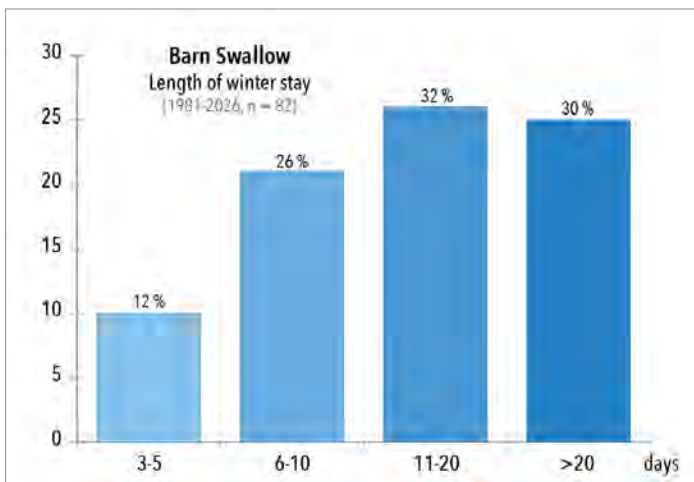


fig. 3. Duration of the winter stay (15 December-15 January) of Barn Swallow in France during the period 1981-2026

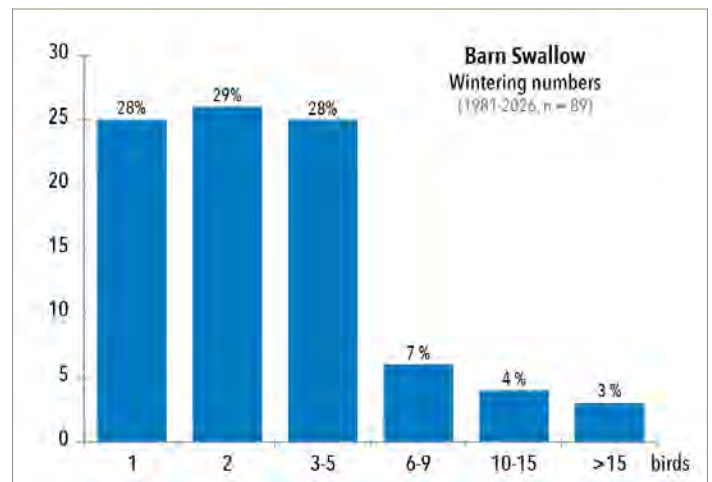


fig. 4. Number of Barn Swallows wintering at the same site in France during the period 1981-2026

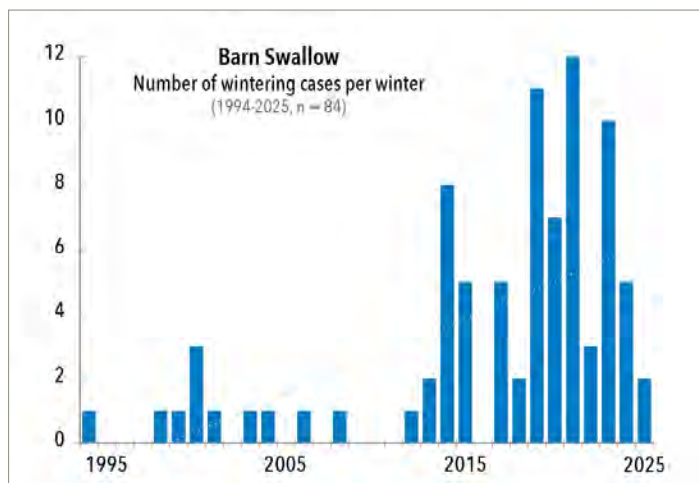


fig. 5. Trends in the number of wintering Barn Swallows in France during the period 1994-2026

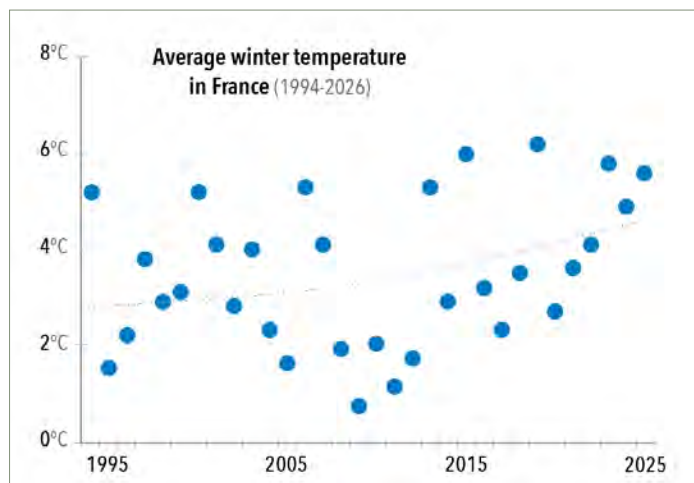


fig. 6. Changes in average winter temperatures in France over the period 1994-2026

II-4. Temporal trends

Figure 5 shows the trend in the number of wintering records in France over the 32-year period used here as a reference. An increase is observed over time ($r = 0.62$, $p < 0.001$). From the early 1990s to the winter of 2012-2013, wintering remained occasional and was observed in almost isolated instances. It was from the winter of 2012-2013 onwards that wintering became an annual occurrence, with the number of cases increasing markedly (peaking at 12 during the winter of 2021-2022), albeit with considerable variability. It should be noted that no overwintering was reported during the winter of 2016-2017 and that, since the 10 cases recorded in the winter of 2023-2024, a decline in cases has been observed, for reasons that remain unclear.

II-5. Temperature trends

The trend in average winter temperatures in France follows the global trend, linked to global warming. It is therefore reasonable to assume that the conditions favourable to a full and successful overwintering are (and will be) met with increasing frequency. Figure 5 shows this trend in average temperatures. There is considerable variability from one winter to the next and an upward trend since the early 2010s, a rise that has been even more pronounced and rapid in recent years ($r = 0.45$, $p = 0.01$).

II-6. Relationship between wintering and temperature

We sought to determine whether there was a relationship between the increase in the number of cases of the Barn Swallow wintering in France and the rise in average winter temperature (Fig. 7). A correlation exists ($r = 0.42$, $p < 0.05$), but it remains moderate. Whilst milder winters may lead to more cases of wintering (or simply better survival among wintering birds?), temperature alone does not fully explain this. Other factors may come into play (see Discussion).

II-7. Rainfall

One might also question the impact of winter rainfall on the survival of Barn Swallows. Indeed, in rainy weather, insects –already less abundant in winter– are even harder to find. An analysis of winter rainfall (1 December-1 February) available on the Météo-France website for the Brittany and Pays de la Loire regions reveals no correlation with the number of cases of the Barn Swallow overwintering. Thus, the winter of 2016-2017 (no wintering) showed normal rainfall (156 and 180 mm respectively in these two regions for the reference period), whilst the 2025-2026 winter (only two wintering cases) was exceptionally wet (over 300 mm). Conversely, the winter of 2021-2022 was rather wet (around 230 mm) and recorded a record number of wintering birds (12), whilst the winter of 2019-2020 (11 cases) saw normal rainfall (144 and 170 mm).

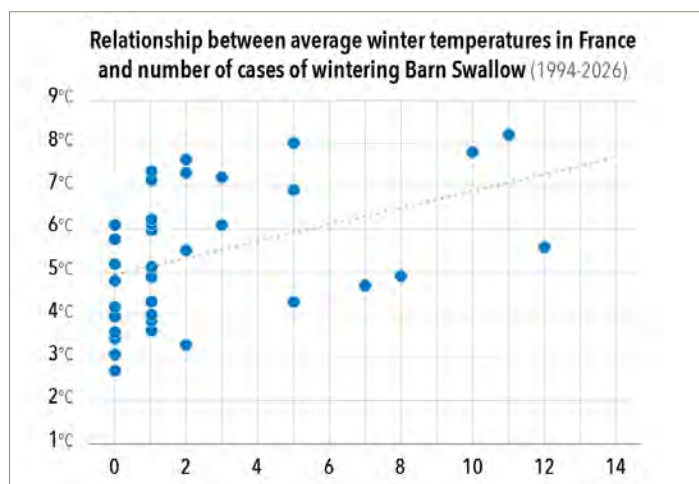


fig. 7. Relationship between the increase in the number of wintering Barn Swallows in France and the rise in average winter temperatures during the period 1994-2026

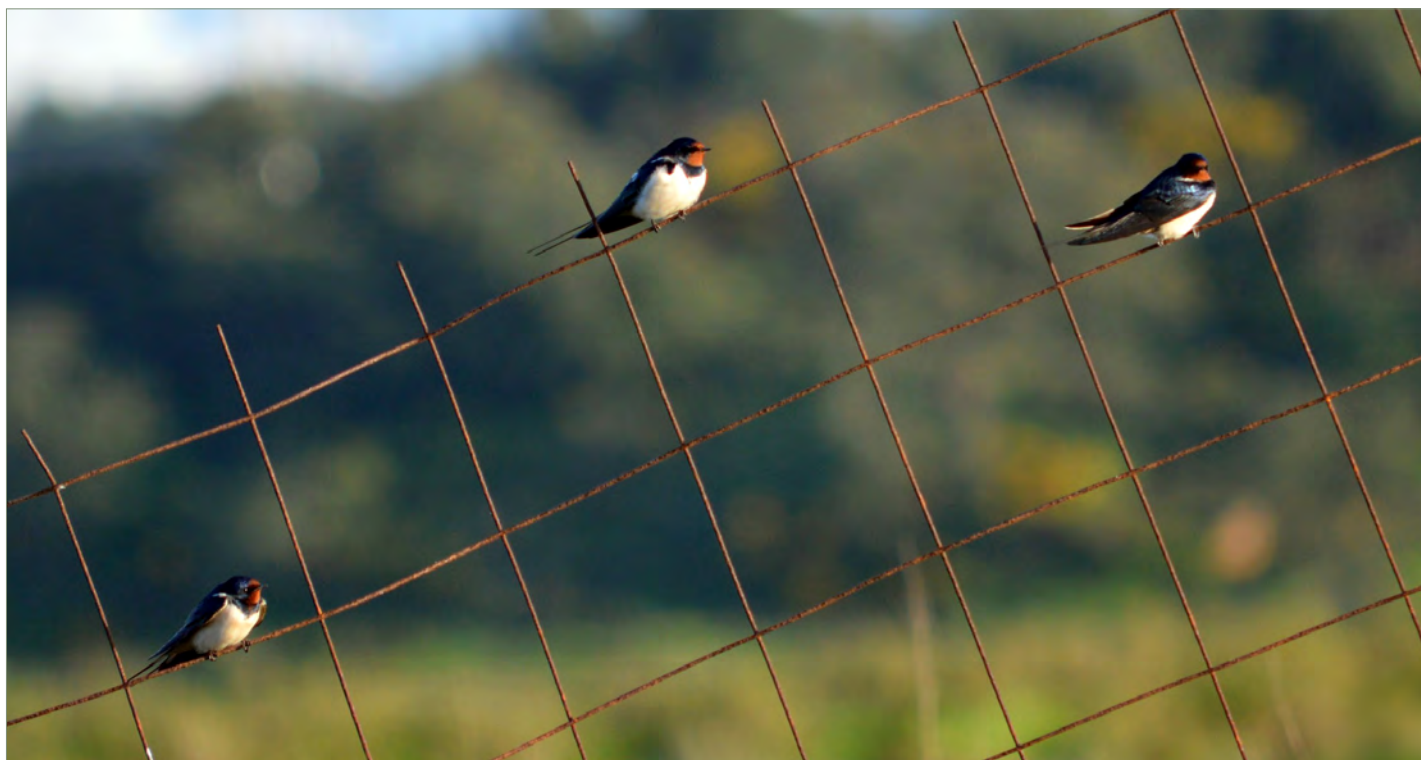


Barn Swallows, Spain, February 2024 (© Blas Lopez)

II-8. Miscellaneous information

The limited information accompanying the observations indicates that the birds were in good condition, hunting over water bodies or in the air. No birds were found freshly dead, but in several cases of small groups of swallows wintering, observers noted a continuous decline in numbers over the course of the winter.

The age of the wintering birds was rarely noted, but there were sightings of both adults and first-winter juveniles. There are more sightings of adult birds during February, but these may include both individuals that have acquired their adult plumage whilst wintering in France and the first migrants returning from Africa. Male birds sometimes sing, even in the depths of winter.



Barn Swallows, Portugal, February 2024 (© Mário Estevens)

III - Discussion

The wintering of the Barn Swallow in France is a recent phenomenon, observed sporadically since the early 1980s, then more regularly from the 2010s onwards. However, such cases remain marginal and are mainly confined to the Atlantic coast (as far north as Finistère), whereas one might expect them to occur predominantly around the Mediterranean. This is no doubt due to the fact that temperature fluctuations during the winter are greater in this part of France than in the west of the country (source: Météo-France) and that the risk of mortality is therefore potentially higher there.

This recent increase in the number of wintering cases of Barn Swallow in France remains modest, however. We have seen that it is moderately correlated with that of average winter temperatures. Several factors are likely to play a role in the dynamics of this overwintering. On the one hand, a cold spell during a relatively mild winter can lead to mortality that abruptly halts any attempt at overwintering. Thus, of the 89 cases studied, 38 (43% of the total) show a decline in numbers over time (compared with 4 indicating an increase), although it is not possible to confirm that mortality occurred.

It is possible, in fact, that the birds simply left the wintering site during the cold spell. Similarly, recent knowledge of cases of Barn Swallows wintering in France may have sparked renewed interest within the ornithological community, leading observers to search for birds in winter, particularly at sites where the species had previously wintered. However, the recent decline in the number of records raises questions, as it is unrelated to rainfall or any cold snap in the west of the country. A possible link to the general decline in the species' population in France and Western Europe remains, for the time being, unanswered...

The origin of the wintering birds is unknown. However, at the more or less regular wintering site of Guissény (Finistère), Sébastien Mauvieux (pers. comm.) observed that after mid-October, swallows were scarcely seen until, in late November/early December, the future winter visitors appeared. Are these birds that have remained further north until late in the season and are moving south with the first cold spells?

It is also noted that swallows may winter in the same locations for several years, such as in the Brouage area (Charente-Maritime), Guissény, Porspoder and Pont-Croix (Finistère), Blaye (Gironde), Orx (Landes), Les Moutiers-en-Retz and Donges (Loire-Atlantique), Angers (Maine-et-Loire), etc. It is in the latter locality (and in neighbouring Bouchemaine) that the highest number of wintering records have been recorded, six in total. Curiously, cases of wintering for several consecutive years in these localities remain exceptional, though it is unclear whether this is due to a lack of monitoring or a genuine absence of birds...

The wintering of the Barn Swallow remains very marginal in Western Europe, except, no doubt, on the Iberian Peninsula (Olioso 2020). In the latter region, several hundred birds are indeed present in southern Spain (and Portugal) in December and January, but, here too, it is difficult to distinguish between true winter visitors and late/early migrants (de Juana & Garcia 2015).

In any case, a Barn Swallow wintering or attempting to winter in France involves a significant risk. Either the bird survives – in which case it will have avoided a long and perilous migration and will be able to occupy its future breeding site under favourable physiological conditions – or, in the event of a cold snap, its chances of survival will be considerably reduced. This is a good example of what is known as a trade-off in evolutionary ecology, where the risk-reward balance is extremely uncertain. This is undoubtedly why the wintering of the Barn Swallow in France, although now an annual occurrence, is neither established in the locations where it has already taken place nor showing strong growth. The future will no doubt provide further insight into this trend of the species wintering in our latitudes.

Like other trans-Saharan migrants, European Barn Swallows face deteriorating winter conditions in Africa, and a migration increasingly complicated by the expansion of the Saharan zone (Turner 2009). The return of migratory birds in spring is also occurring earlier and earlier due to rising temperatures. All of this could contribute to an increase in the number of cases of the Barn Swallow wintering in France and elsewhere in Western Europe.

References : • Ballot J.-N. (2008). Hivernage avec succès de l'Hirondelle rustique *Hirundo rustica* dans le Nord-Finistère. *Ar Vran* 19-1 : 12-15. • Barnagaud J.-Y. (2015). Hirondelle rustique. In Issa N. & Muller Y. (coord.), *Atlas des oiseaux de France métropolitaine. Nidification et présence hivernale*. LPO/SEOF/MNHN. Paris, Delachaux et Niestlé : 866-869. • Brown M.B. & Brown C.R. (2020). Barn Swallow (*Hirundo rustica*), version 1.0. In Rodewald P.G. (ed.), *Birds of the World*. Cornell Lab of Ornithology, Ithaca. • de Juana E. & Garcia E. (2015). *The Birds of the Iberian Peninsula*. Christopher Helm, London. • Dubois P.J., Le Maréchal P., Oliso G. & Yésou P. (2008). *Nouvel inventaire des oiseaux de France*. Delachaux et Niestlé, Paris. • Gore O. (2022). Hirondelle rustique. In Dupuy J. & Sallé L. (coord.), *Atlas des oiseaux migrateurs de France*. LPO/MNHN. Mèze, Éditions Biotopie: 977-980. • Jarry G. (1991). Hirondelle de cheminée. In Yeatman-Berthelot D. (coord.), *Atlas des oiseaux de France en hiver*. Paris, Société Ornithologique de France : 549-550. • Keller V., Herrando S., Voříšek P. et al. (2020). *European Breeding Bird Atlas 2: Distribution, Abundance and Change*. European Bird Census Council. Lynx Edicions, Barcelona. • Le Corre Y. & Quiviger O. (2000). Hivernage de l'Hirondelle rustique dans le Finistère. *Ar Vran* 11-1 : 56-59. • Mayaud N. (1936). *Inventaire des oiseaux de France*. Blot Ed., Paris. • Mayaud N. (1953). Liste des oiseaux de France. *Alauda* 21 : 1-63. • Oliso G. (2020). *Les Hirondelles*. Delachaux et Niestlé, Paris. • Turner A. (2009). Climate change: a Swallow's eye view. *British Birds* 102 : 3-16.

Acknowledgements: these are first and foremost directed at the dozens of observers of Barn Swallows in France during the winter, without whom this review would not have been possible. Thanks to Marc Duquet for his proofreading and insightful comments, and to Sébastien Mauvieux for our discussions on this subject.



Barn Swallow, Portugal, February 2025 (© Francisco Pires)



Find many more free articles in the digital magazine *Post-Ornithos*!