

Epidemiological analysis of African swine fever in the European Union during 2024

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The declarations of interest of all scientific experts active in EFSA's work are available at <https://open.efsa.europa.eu/experts>

Abstract

During 2024, the number of EU Member States affected by African swine fever (ASF) decreased from 14 to 13, with Sweden regaining freedom and no new Member State becoming infected. ASF outbreaks in domestic pigs in the EU declined by 83% compared to 2023, primarily due to fewer outbreaks in Croatia and Romania, although Romania notified 66% of the 333 outbreaks in the EU. Most outbreaks (78%) occurred in establishments with fewer than 100 pigs. However, an increase in outbreaks in establishments with more than 100 pigs was observed in Italy and Poland. Like previous years, there was a clear seasonality for domestic pig outbreaks, with 51% of them notified between July and September. Most of the outbreaks in domestic pigs were detected through passive surveillance based on clinical suspicion (79.4%), while fewer outbreaks were detected through enhanced passive surveillance involving systematic testing of dead pigs (14.2%) and 6.4% through tracing contacts after outbreak detection. In wild boar, the number of outbreaks notified has remained stable since 2022 (between 7000 and 8000) with a less clear seasonality than for domestic pigs, and a winter peak observed only in Hungary, Italy, Poland and Slovakia. Overall, 29% of the 23,919 wild boar carcasses found during passive surveillance activities tested positive for ASFv by PCR, representing 70.4% of the wild boar outbreaks in the EU. In contrast, around 0.4% of the 412,753 hunted wild boar tested positive by PCR, representing 28.4% of the wild boar outbreaks. While the use of serological tests performed in wild boar decreased, the number of PCR tests remained stable. Despite the reduction in the number of outbreaks in domestic pigs, the total size of the restricted zones III in the EU remained stable, with a slight increase in restricted zones II + III in 2024.

KEYWORDS

ASF, epidemiology, monitoring, pigs, surveillance, wild boar

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SUMMARY

The European Food Safety Authority (EFSA) has a mandate from the European Commission to generate annual epidemiological analyses of the spread and impact of African swine fever (ASF) genotype II in the European Union (EU) and neighbouring countries affected. In this context, affected Member States and non-EU countries and territories that notified ASF during 2024 in the Animal Disease Information System (ADIS) were invited to submit laboratory test results of ASF surveillance activities and pig population information to EFSA. These data were used in combination with other data sources to produce this report, including official information on ASF outbreaks in wild boar and domestic pigs (ADIS), wild boar national hunting bags, wild boar abundance estimates and restricted zone data.

In 2024, ASF did not appear in any new Member State, and Sweden regained freedom in September, reducing the number of affected Member States from 14 to 13. This marks the first decline in the number of affected Member States since ASF genotype II was introduced into the EU in 2014.

The number of ASF outbreaks in domestic pigs in the EU decreased from 1929 in 2023 to 333 in 2024, representing an 83% decline, primarily due to fewer outbreaks in Romania and Croatia. Romania notified 220 (66%) of the 333 outbreaks in the EU. While most of the outbreaks in the EU (78%) occurred on establishments with fewer than 100 pigs, an increase in the number of outbreaks in larger establishments (≥ 100 pigs) was observed in Italy and Poland, and six outbreaks were notified in establishments with more than 10,000 pigs (Romania: 3; Italy: 2; Poland: 1). As in previous years, a clear seasonality of ASF in domestic pigs was observed, with 51% of the outbreaks notified in the EU between July and September.

During 2024, affected Member States continued the trend of relying more on passive surveillance than active surveillance for domestic pigs. Most of the outbreaks in domestic pigs were detected through passive surveillance based on testing clinical suspicions (79.4%). Fewer outbreaks were detected through active surveillance, tracing contacts after outbreak detection (6.4%) and enhanced passive surveillance, involving systematic testing of dead pigs (14.2%). Enhanced passive surveillance proved particularly effective in large establishments, leading to the detection of 68.4% of the outbreaks notified in establishments with more than 1000 pigs (26/38 outbreaks), compared to only 6.5% of the outbreaks in establishments with fewer than 1000 pigs.

A notable long-distance translocation event occurred in Germany in June 2024, when the virus was introduced into wild boar in the South-West of the country. The virus subsequently spread within the wild boar population and spilled over into the domestic pig sector. Although the cause of this long-distance translocation event remains unknown, genetic analyses indicate an introduction from outside Germany.

Contrary to the changes observed in domestic pigs, the situation of ASF in wild boar in the affected Member States remained relatively stable since 2022, with the number of ASF notified outbreaks fluctuating between 7000 and 8000. In 2024, Poland notified the highest number of ASF outbreaks in wild boar, accounting for 30% of the wild boar outbreaks in the EU.

A clear seasonality in the proportion of positive PCR tests in found dead wild boar was observed in Italy, Hungary, Poland and Slovakia, with peaks in winter. This is consistent with historical trends in these countries. In contrast, no clear seasonal trends were observed in other countries.

Samples from hunted wild boar represented 91.5% of all analysed wild boar samples, with only 0.4% testing positive for ASF by PCR. Despite this low positivity rate, these tests led to the detection of 28.4% of the wild boar outbreaks. In contrast, samples from found dead wild boar represented only 5.2% of the total analysed, but 29% of them tested positive by PCR, resulting in the detection of 70.4% of the wild boar outbreaks in the EU. Road-killed wild boar samples accounted for the remaining 3.3% of samples, leading to the detection of 1.2% of wild boar outbreaks. The overall number of serological tests used in hunted wild boar in the EU decreased by 21%, from 152,636 in 2023 to 119,843 in 2024. However, the total number of PCR tests remained stable over time.

In 2024, the size of restricted zone III remained stable compared to last year despite fewer outbreaks notified in domestic pigs. The size of restricted zones II + III showed a slight increase, at a level similar to last year (+1.9%, +13,979 km²). The incidence rate in affected NUTS 3 remained stable in most Member States, except in Italy, where an increase in incidence was observed mainly due to the ASF cluster in the North.

Overall, there was no change in the number of wild boar lost to ASF (found dead or killed positive to ASF) in the Member States compared with the previous year. However, there was some variation between countries with increases in Bulgaria, Greece and Latvia, and decreases in Romania, Poland, Slovakia and Sweden as it became free of the disease. The apparent proportion of losses in relation to the wild boar population in the affected Member States increased from an average of 0.45% in 2023 to 0.51% in 2024.

The analysis of the annual hunting bags at the country level confirmed the rebound of the wild boar population in the Baltic States that was initiated in 2019. It also showed a stabilising trend in Bulgaria (following a decline after ASF introduction) and a decreasing trend in Hungary (following ASF introduction). Those trends are consistent with the overall pattern observed in Europe.

In non-EU countries, ASF was detected for the first time in Albania and Montenegro during 2024. Despite this, a declining trend in the number of outbreaks was observed both in domestic pigs (with a reduction of 83%) and in wild boar (with a reduction of 30%). Serbia was the most heavily affected non-EU country, accounting for 310 (72%) of the 431 outbreaks notified in domestic pigs.

1 | INTRODUCTION

Since genotype II of African swine fever virus (ASFv) was detected in eastern Europe in 2007, the virus has spread to numerous countries in Europe and far beyond (Asia, the Americas, Oceania). In the European Union (EU), genotype II of ASFv was detected for the first time in 2014 in Eurasian wild boar (*Sus scrofa*) in Poland and the Baltic countries. Since then, African swine fever (ASF) has been notified in several EU countries, affecting kept and wild porcine animals (as defined in Article 4 of Regulation 2016/429¹), here referred to as domestic pigs and wild boar.

The control of the disease in the EU follows a regionalisation approach. This includes preventive biosecurity measures, restrictions of movement of domestic pigs, wild boar and their products, culling of domestic pigs at affected establishments and the management of wild boar populations. Therefore, the collection of samples and analysis of the surveillance data are crucial for evaluating the disease' evolution, monitoring the effect of the control measures, and adapting the control measures accordingly.

Since 2016, EFSA has been producing annual epidemiological reports summarising the evolution of ASF in the EU focusing on ASFv genotype II. These reports analyse epidemiological trends and study the risk factors involved in the occurrence spread and persistence of the disease.² As specified in the mandate from the European Commission to EFSA and as mentioned in the protocol (EFSA, 2023; EFSA, 2023), only outbreaks caused by ASFv genotype II are included in this report. In this report, 'ASF' refers to outbreaks of ASF caused by genotype II in Europe, and 'ASFv' refers to ASFv genotype II.

This report focuses on the epidemiological assessment of ASF from 1 January to 31 December 2024 in the Member States and neighbouring countries that notified ASF outbreaks among domestic pigs or wild boar in 2024 to the Animal Diseases Information System (ADIS), hereafter referred to as 'affected countries'. When mentioning 'non-EU countries', we refer to the European countries or territories neighbouring the EU that notify ASF outbreaks to ADIS.

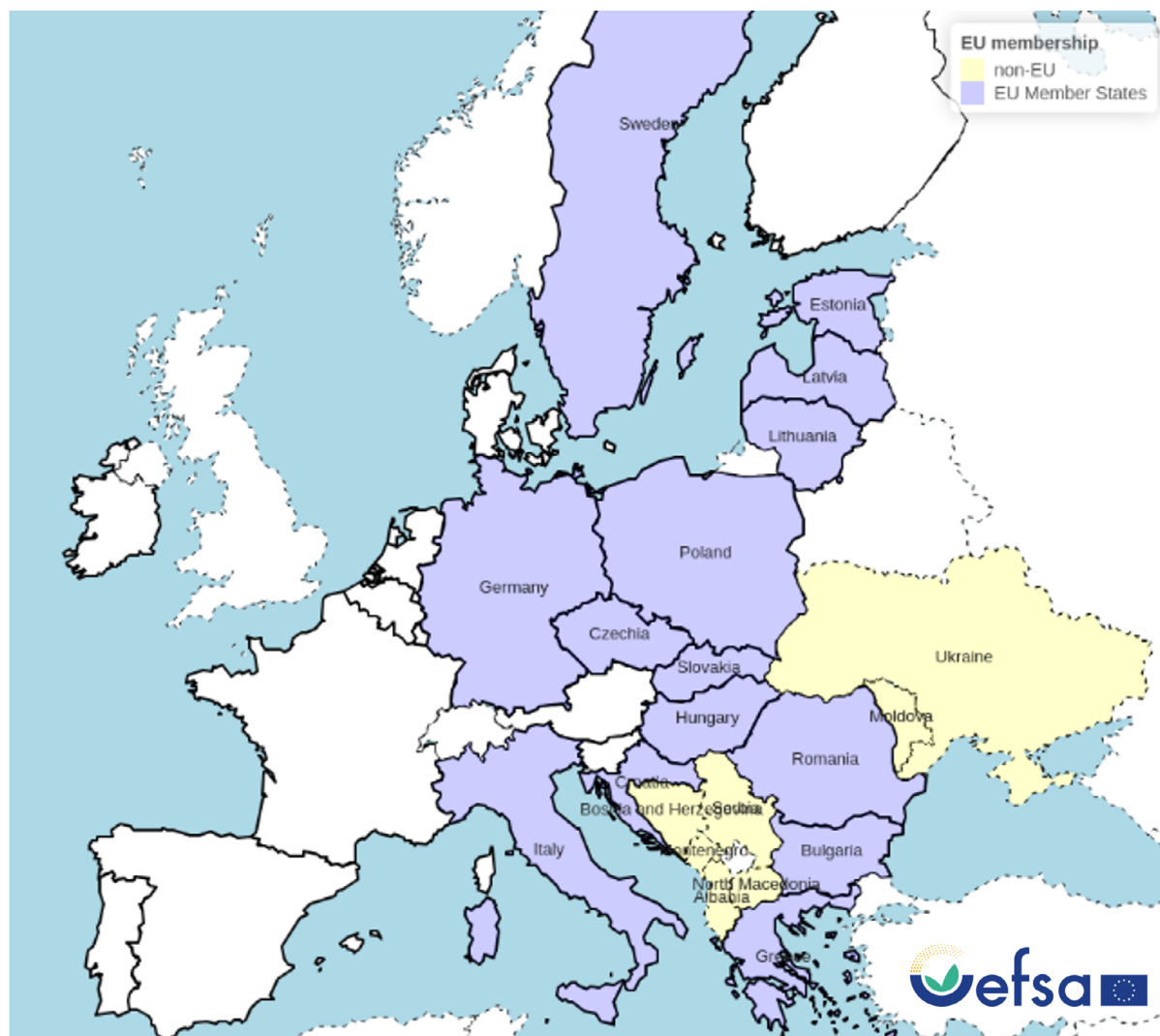
In 2024, 14 Member States were affected by ASF in either domestic pigs or wild boar: Czechia, Estonia, Hungary and Sweden notified ASF outbreaks in wild boar only; while Bulgaria, Croatia, Germany, Greece, Italy, Latvia, Lithuania, Poland, Romania and Slovakia notified ASF outbreaks in both wild boar and domestic pigs. Of note, Sweden regained its freedom from ASF in September 2024. Consequently, at the end of 2024, a total of 13 Member States were still affected, representing the first year-on-year reduction in the number of affected countries. In European non-EU countries, ASF was notified in ADIS in seven countries during 2024: Albania, Bosnia and Herzegovina, Moldova, Montenegro, North Macedonia, Serbia and Ukraine.

2 | DATA AND METHODOLOGIES

The data and methodology used for this report are detailed in the protocol published in EFSA (2023). The report focuses on the epidemiological situation of ASF for the year 2024, considering previous years for historical comparison. Only Member States and neighbouring countries that notified outbreaks to ADIS during the year are included (Figure 1).

¹Regulation (EU) 2016/429 of the European Parliament and of the Council of 9 March 2016 on transmissible animal diseases and amending and repealing certain acts in the area of animal health ('Animal Health Law'). OJ L 84, 31.3.2016, p. 1–208.

²See the ASF page on the EFSA Journal website for further publications on the topic: <https://efsa.onlinelibrary.wiley.com/doi/toc/10.2903/1831-4732.african-swine-fever>.



European countries that notified ASF outbreaks to the Animal Diseases Information System in 2024

Source: ADIS

Administrative boundaries: ©Eurographics

Cartography: EFSA, 01.02.25

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FIGURE 1 European countries that notified ASF outbreaks to the Animal Diseases Information System in 2024.

To improve data harmonisation and produce this report, six different data sources were used:

- (i) ASF laboratory results of samples from domestic pigs and wild boar analysed during 2024 submitted to EFSA following the guidance for reporting laboratory data on ASF (EFSA, 2022a).
- (ii) Data on the domestic pig population (location and type of establishments, number of animals, etc.) during 2024 submitted to EFSA following the guidance for reporting animal population data (EFSA, 2022b).
- (iii) Data on ASF outbreaks confirmed in 2024 notified in the EU's Animal Diseases Information System (ADIS), which was accessed on 21 February 2025.
- (iv) Data on annual wild boar hunting bags (harvested animals per km²) collected by the ENETWILD Consortium up to 31 March 2025.
- (v) Modelled wild boar abundance published by the ENETWILD Consortium (2022).
- (vi) Data on EU restricted zone measures for ASF that were provided by the Directorate-General for Health and Food Safety up to December 2024.³

³The latest version can be consulted on <https://santegis.maps.arcgis.com/apps/webappviewer/index.html?id=45cdd657542a437c84bfc9cf1846ae8c>.

In addition, representatives from affected countries completed an online questionnaire to share contextual information about their ASF surveillance activities and wild boar management strategies (answers in Appendix A). A summary of the type of data available for each affected country can be found in Table 1.

The data were summarised in tables, maps and graphs, emphasising major changes and the evolution of the disease in Member States and non-EU countries in 2024.

TABLE 1 Availability, for each affected country of the different data sources used in the report (X: Data available, NA: Not applicable).

	Country ^{a,b}	Number of ASF outbreaks notified in ADIS in 2024		Laboratory results ^a		Pig population data	Wild boar annual hunting data	Wild boar modelled abundance	EU zoning data	Surveillance questionnaire
		Domestic pigs	Wild boar	Domestic pigs	Wild boar					
EU	Bulgaria	1	717				X	X	X	
	Croatia	6	39			X	X	X	X	
	Czechia	0	27	X	X	X	X	X	X	X
	Estonia	0	36	X	X	X	X	X	X	X
	Germany	10 ⁴	966		X		X	X	X	X
	Greece	5	21		X	X	X	X	X	X
	Hungary	0	474	X	X		X	X	X	X
	Italy	31	1205	X	X	X	X	X	X	X
	Latvia	7	961	X	X	X	X	X	X	X
	Lithuania	8	561	X	X	X	X	X	X	X
	Poland	44	2311	X	X	X	X	X	X	X
	Romania	220	186	X	X	X	X	X	X	X
	Slovakia	1	165	X	X	X	X	X	X	X
	Sweden	0	8	X	X		X	X	X	X
	Total outbreaks	333	7677	–	–	–	–	–	–	–
Non-EU	Albania	1	3					X	NA	
	Bosnia and Herzegovina	33	38				X		NA	
	Moldova	13	6				X		NA	
	Montenegro	0	1					X	NA	X
	North Macedonia	4	51			X	X	X	NA	X
	Serbia	310	101				X	X	NA	X
	Ukraine	70	15				X		NA	
	Total outbreaks	431	215	–	–	–	–	–	–	–

^aLaboratory results are the ASF laboratory tests results (positive and negative) performed by the countries and submitted to EFSA.
^bNote: Countries newly affected in 2024 appear highlighted in bold. Data on surveillance and wild boar management were collected through an online questionnaire.

3 | ASSESSMENT

3.1 | Disease epidemiology and surveillance of ASF in domestic pigs

HIGHLIGHTS OF DOMESTIC PIGS

In 2024, ASF did not emerge in any previously unaffected Member State, and Albania was the only non-EU country to report its first ASF outbreak in domestic pigs.

The number of ASF outbreaks in the Member States decreased from 1929 in 2023 to 333 in 2024, representing an 83% decline, largely due to fewer outbreaks in Romania and Croatia. Romania notified 220 (66%) of the 333 outbreaks in the EU. While most of the outbreaks (78%) occurred on small establishments with fewer than 100 pigs, an increase in the number of outbreaks in establishments with more than 100 pigs was observed in Italy and Poland, and six outbreaks were notified in establishments with more than 10,000 pigs (Romania: 3; Italy: 2; Poland: 1).

⁴One of these outbreaks was in kept wild boar in a wildlife park in the newly affected region in Germany.

In non-EU countries, the number of ASF outbreaks decreased from 2528 in 2023 to 431 in 2024, representing an 83% reduction. Serbia was the most heavily affected non-EU country, accounting for 310 (72%) of the 431 outbreaks notified.

As in previous years, a clear seasonality of ASF in domestic pigs was observed, with 51% of the outbreaks notified between July and September.

In 2024, affected Member States continued to analyse an increasing number of domestic pig samples from passive surveillance activities, while the number of active surveillance samples decreased.

Most of the outbreaks in domestic pigs were detected through passive surveillance based on testing clinical suspicions (79.4%), while fewer outbreaks were detected through active surveillance, tracing contacts after outbreak detection (6.4%) and enhanced passive surveillance involving systematic testing of dead pigs (14.2%). Enhanced passive surveillance activities led to the detection of 68.4% of the outbreaks notified in establishments with more than 1000 pigs (26/38 outbreaks), compared to 6.5% of the outbreaks notified in establishments with fewer than 1000 pigs.

3.1.1 | Spatial distribution among domestic pigs

In 2024, ASF outbreaks in domestic pigs were notified to ADIS by 10 Member States (Bulgaria, Croatia, Germany, Greece, Italy, Latvia, Lithuania, Poland, Romania and Slovakia), and six non-EU countries (Albania, Bosnia and Herzegovina, Moldova, North Macedonia, Serbia and Ukraine). No new Member State experienced outbreaks in domestic pigs in 2024, and Albania was the only non-EU country to notify its first ASF outbreak in domestic pigs. All 16 countries that notified outbreaks in domestic pigs also notified outbreaks among wild boar.

For comparison, [Figure 2](#) illustrates ASF outbreaks in domestic pigs during 2023 (left) and 2024 (right). Romania notified the highest number of ASF outbreaks among domestic pigs in 2024, with 220 outbreaks spread across the country, representing 66% of the EU total. This represented an important decrease of 70% from the 736 outbreaks notified in 2023. Similarly, the situation improved notably in Croatia, with only six outbreaks in the eastern part of the country, compared to 1124 outbreaks in that area in 2023. Conversely, Italy experienced a surge of outbreaks from 16 in 2023 to 31 in 2024, all of them clustered in the North-West. Poland saw a 47% increase notifying 44 outbreaks in 2024 compared to 30 in 2023, affecting new areas in the Central region. Germany notified 10 outbreaks⁵ in domestic pigs in 2024, compared to only one in 2023, all in the newly affected region in the South-West (see below [Section 3.3 'Translocation event'](#) for more information about Germany). Slovakia experienced a recurrence with one outbreak in domestic pigs in 2024 after a year of absence. In the rest of the affected Member States (Bulgaria, Greece, Latvia, Lithuania and Slovakia), sporadic outbreaks were notified.

In the non-EU neighbouring countries, the total number of outbreaks decreased from 2584 in 2023 to 431 in 2024. This important reduction was highly driven by fewer outbreaks in Bosnia and Herzegovina and Serbia. Despite that, Serbia notified the highest number of ASF outbreaks in domestic pigs in 2024, with 310 outbreaks across its territory ([Figure 2](#)). In Ukraine, 70 outbreaks were notified, scattered across the central and Eastern part of the country. In the non-EU countries, 92% of notified outbreaks occurred in establishments with fewer than 100 pigs.

⁵One of these outbreaks was in kept wild boar in a wildlife park in the newly affected region in Germany.

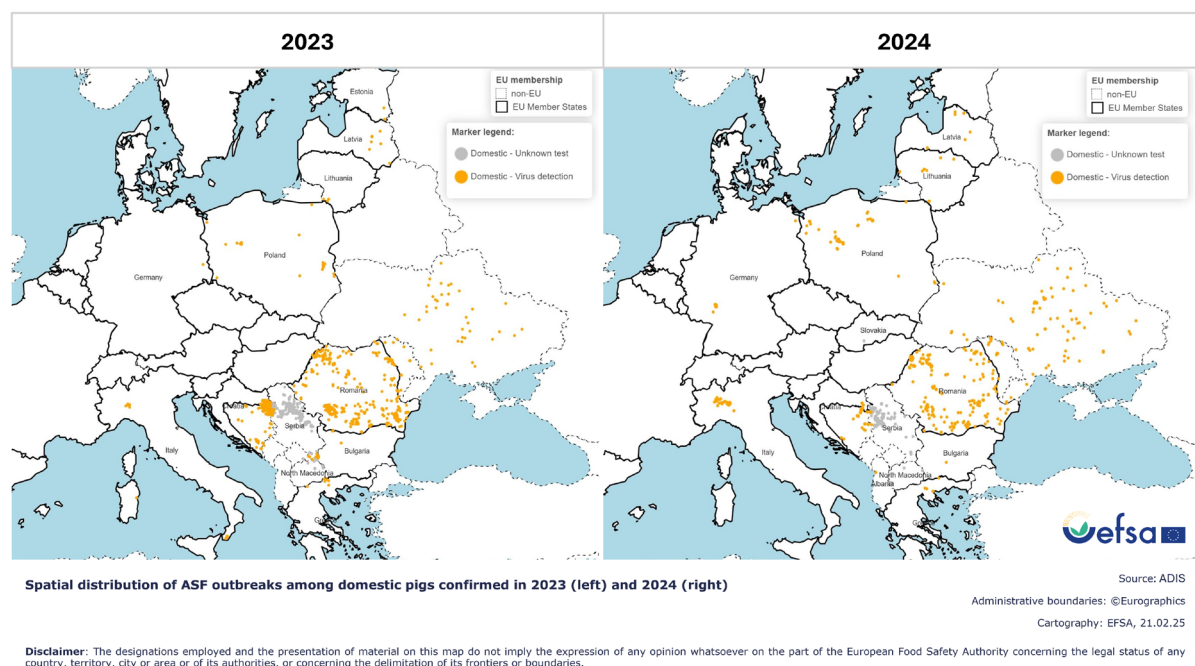
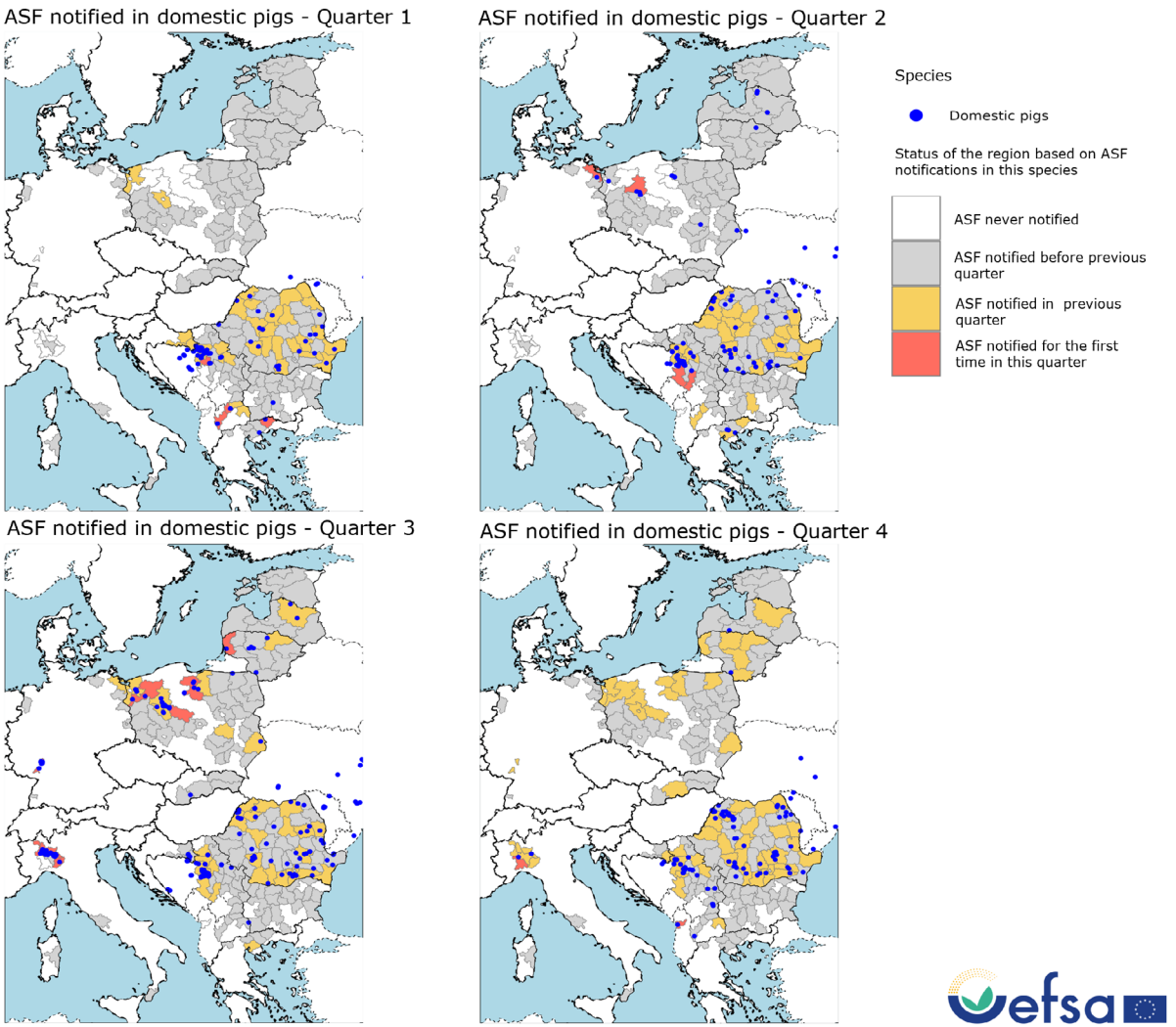


FIGURE 2 Spatial distribution of ASF outbreaks among domestic pigs confirmed in 2023 (left) and 2024 (right).

To gain deeper insight into the spatio-temporal evolution of the disease, [Figure 3](#) displays the distribution of ASF in the domestic pig sector, per quarter of the year 2024. For each quarter, the NUTS 3 regions were coloured red if ASF was notified for the first time ever in the region in domestic pigs; orange if at least one outbreak in domestic pigs had been notified during the previous quarter; grey if at least one outbreak in domestic pigs had been notified before the previous quarter; and white if no outbreak had ever been notified in domestic pigs.

In 2024, an average of 32 NUTS three regions notified ASF outbreaks in domestic pigs in the EU per quarter (min: 21, max: 51), with approximately 70% of them being in Romania. These numbers are similar to 2023, when an average of 30 NUTS 3 regions were affected per quarter (min: 21, max: 46). In the EU, 86% of the outbreaks notified in 2024 in domestic pigs were in NUTS 3 regions with previous presence of the disease, either in the previous quarter (55%) or any time before (31%). The remaining 14% were notified in 17 previously unaffected NUTS 3 regions located in Germany (Southwest and North-eastern part of the country), Greece (at the border with Bulgaria), Northern Italy, Lithuania (affecting the only NUTS 3 region that had remained unaffected by ASF in domestic pigs so far) and Northern Poland.

In the non-EU countries, 96% of the outbreaks notified in 2024 in domestic pigs were in NUTS 3 regions with previous presence of the disease, either in the previous quarter (9%) or any time before (87%). The remaining 4% (12 outbreaks) were notified in six previously unaffected NUTS 3 regions located in North Macedonia (2 NUTS 3 regions), Serbia (3) and Albania (1).



Spatio-temporal distribution of ASF outbreaks among domestic pigs in 2024 per quarter per NUTS 3

Source: ADIS

Administrative boundaries:
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Cartography: EFSA, 21.02.25

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FIGURE 3 Spatio-temporal distribution of ASF outbreaks among domestic pigs in 2024 per quarter per NUTS 3.

3.1.2 | Temporal dynamics among domestic pigs

Annual trends in domestic pigs

The temporal dynamics of the numbers of outbreaks per country were investigated for the Member States that notified ASF outbreaks among domestic pigs (11 out of 14 countries with ASF outbreaks notified) (Figure 4).

The total number of ASF outbreaks occurring on EU establishments during 2024 was 333, 83% lower than the number of outbreaks notified in 2023 (1929). To characterise the type of establishments affected, the outbreaks were divided into two categories based on the number of susceptible pigs reported to be present in the outbreak, considering 100 pigs as the threshold. In total, 78% of the outbreaks notified in the EU affected establishments with fewer than 100 pigs. This is also relevant when analysing the impact of the disease on the pig sector (see Section 3.4.2).

In Figure 4A, a noticeable reduction in the number of outbreaks in establishments with fewer than 100 pigs was observed, from 1850 outbreaks in 2023 to 261 outbreaks in 2024. This decrease was mostly driven by a sharp drop in the number of outbreaks in Croatia, which fell from 1083 in 2023 to 6 outbreaks in 2024.

The number of outbreaks in establishments with 100 pigs or more (Figure 4B) decreased by 9% compared to the previous year. In Croatia, 41 outbreaks of this type were observed in 2023, while none were observed in 2024. Despite the general decreasing trend of this type of outbreaks (in establishments with more than 100 pigs), an increase was observed in Italy and Poland.

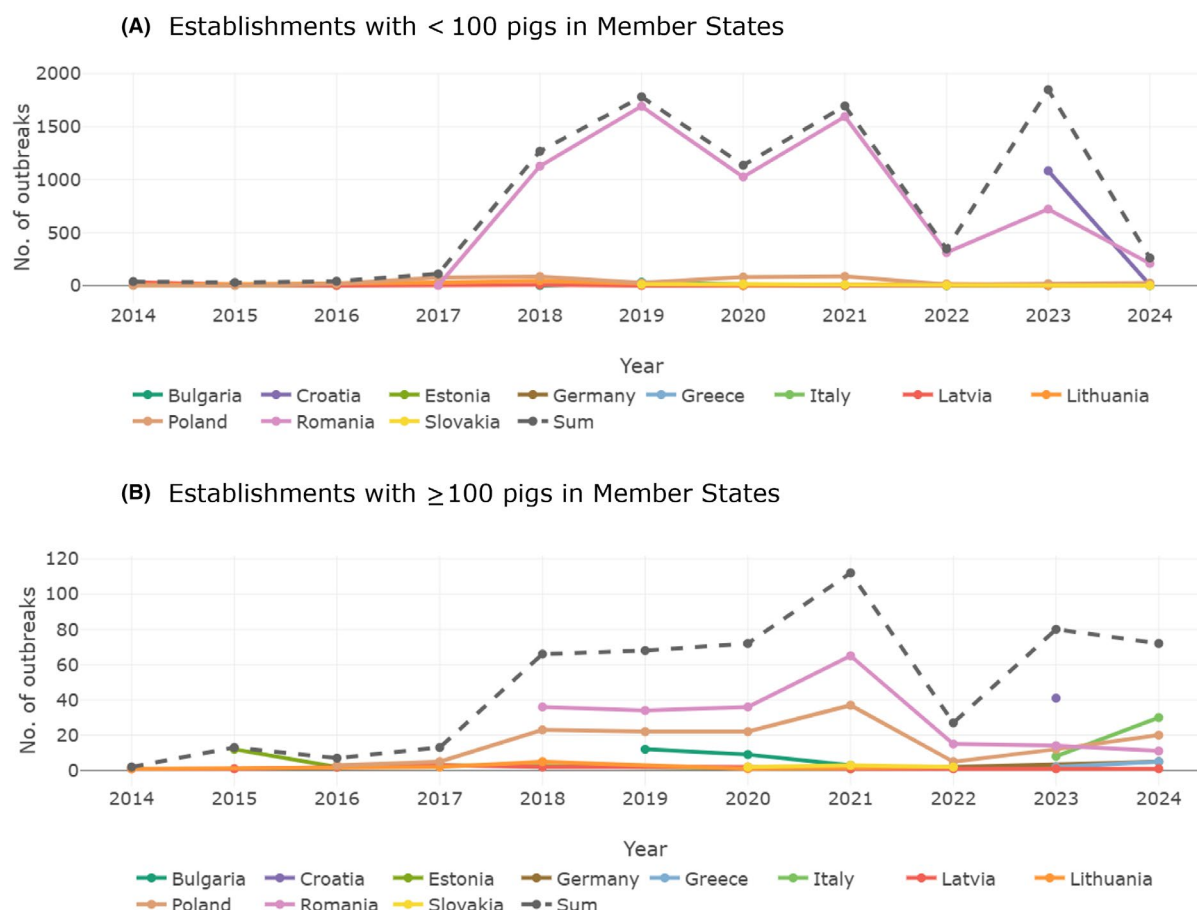


FIGURE 4 Yearly numbers of ASF outbreaks among domestic pigs notified in ADIS by Member States from 2014 to 2024, in A) establishments with fewer than 100 pigs, B) establishments with 100 pigs or more.

Monthly seasonality in domestic pigs

The seasonality of ASF outbreaks in domestic pigs within the EU was analysed by the number of outbreaks notified per month throughout the years (Figure 5A), with a thicker line for 2024. Approximately 51% of the outbreaks notified in domestic pigs in 2024 in the EU occurred between July and September, and 70% from June to October. This pattern was less pronounced than in 2023, when 79% of outbreaks were notified between July and September, and 92% from June to October. Figure 5B,C show the outbreaks notified in 2024 per month per Member State, differentiated by size of the establishment affected (considering 100 pigs as the threshold). In both sizes of outbreaks, a peak was observed in July/August, especially in Italy, Romania and Poland, although the peaks in Italy and Poland were represented by few outbreaks.

In the non-EU countries, approximately 51% of the outbreaks notified in domestic pigs in 2024 occurred between July and September, and 74% from June to October (Figure 5D). Serbia observed a clear summer peak in June/July/August in small establishments (< 100 pigs, Figure 5E), while the outbreaks in large establishments ≥ 100 pigs, Figure 5F) were observed in winter in Serbia and in summer in Ukraine.

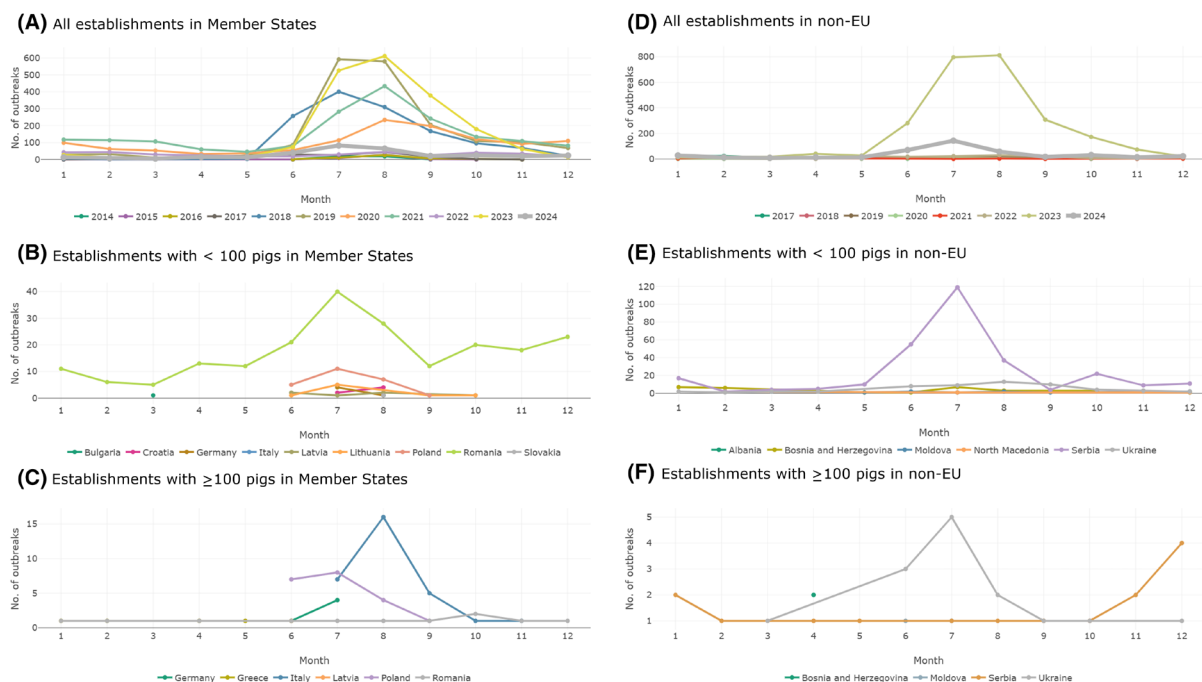


FIGURE 5 Temporal distribution of ASF outbreaks in affected Member States (left) and non-EU countries (right), shown by month of confirmation from 2014 to 2024. The figure differentiates between all domestic pig establishments (A, D), establishments with fewer than 100 pigs (B, E), and those with more than 100 pigs (C, F). Note: Some countries cannot be seen in the figure due to the small number of outbreaks.

3.1.3 | ASF surveillance in domestic pigs

Surveillance components

Passive surveillance (i.e. the investigation of clinical suspicions, including testing dead pigs and pigs with clinical signs) is essential for early detection of ASF among domestic pigs. As an additional component to support timely detection, an enhanced passive surveillance can be implemented on establishments, based on the weekly testing of at least two dead post-weaning pigs (older than 60 days) as described by the EFSA AHAW Panel (2021) and as recommended for restricted zones in accordance with the 'Guidelines on the prevention, control and eradication of African swine fever in the Union ('ASF guidelines')' (European Commission, 2023). Note that for small establishments where fewer than two dead pigs are found per week, it is recommended to test every single pig found dead. Such enhanced passive surveillance⁶ is also used by the competent authorities of Member States to confirm freedom of disease status at domestic pig establishments prior to authorising animal movements in restricted areas, as prescribed by the European legislation (Regulation (EU) 2023/594⁷). Active surveillance activities that target apparently healthy pigs are not included in the current legislation and are not implemented unless considered necessary by the competent authorities.

All Member States that responded to the online questionnaire (12/15) reported implementing passive surveillance by testing dead pigs and pigs with clinical signs, and enhanced passive surveillance. Two affected Member States implemented enhanced passive surveillance nationwide, while 10 Member States limited it to the restricted zones (which in four Member States equate to the whole country). The target population for enhanced passive surveillance varied between Member States, with some focusing on commercial establishments or pig establishments that send animals to other establishments (4/10), while others included all types of establishments (6/10). In Italy, during the epidemic phase in 2024, additional measures than those required in Regulation (EU) 2023/594, were applied in the restriction zones including testing of two dead pigs/week/establishment in fattening farms, testing of all dead sows and boars in breeding farms, and testing all dead pigs in the Lombardy region.

Regarding active surveillance activities, 6/12 Member States reported testing apparently healthy pigs before movements in restriction zones, 5/12 reported testing pigs at slaughter and 3/12 performed random testing of healthy pigs in restricted zones.

In 2024, 10 Member States submitted ASFv test results from domestic pigs to EFSA, the same number as in 2023. A total of 574,972 samples from domestic pigs were analysed for ASFv in the EU in 2024, compared to 615,531 in 2023. Of these, 64% (368,669 samples) were part of passive surveillance⁸ and 36% (206,303 samples) were active surveillance⁹ efforts targeting apparently healthy pigs, compared to 50% each in 2023. This continues with the trend of fewer samples analysed as

⁶Surveillance by means of testing with pathogen identification tests for ASF virus with negative results each week on at least the first two dead kept porcine animals over the age of 60 days or, in the absence of such dead animals over the age of 60 days, on any dead kept porcine animals after weaning.

⁷Commission Implementing Regulation (EU) 2023/594 of 16 March 2023 laying down special disease control measures for African swine fever and repealing Implementing Regulation (EU) 2021/605. J L 79, 17.3.2023, p. 65–150.

⁸'Passive surveillance' included the samples reported to the DCF as 'alive symptomatic', 'dead (either symptomatic or asymptomatic)', 'culled animals' and 'hunted symptomatic' (for wild boar).

⁹'Active surveillance' included the samples reported to the DCF as 'alive' or 'alive non-symptomatic', 'slaughtered', 'hunted' and 'hunted non-symptomatic' (for wild boar).

part of the active surveillance compared to passive surveillance (Figure 6), mainly driven by changes in surveillance strategies in Poland and Romania since 2022 (Figure 7). Notably, Hungary and Slovakia stand out with relatively high proportions of domestic pigs tested as part of active surveillance, including healthy pigs tested before movements and at slaughter in restricted zones in both Member States, plus healthy pigs tested at random in restricted zones only in Slovakia.

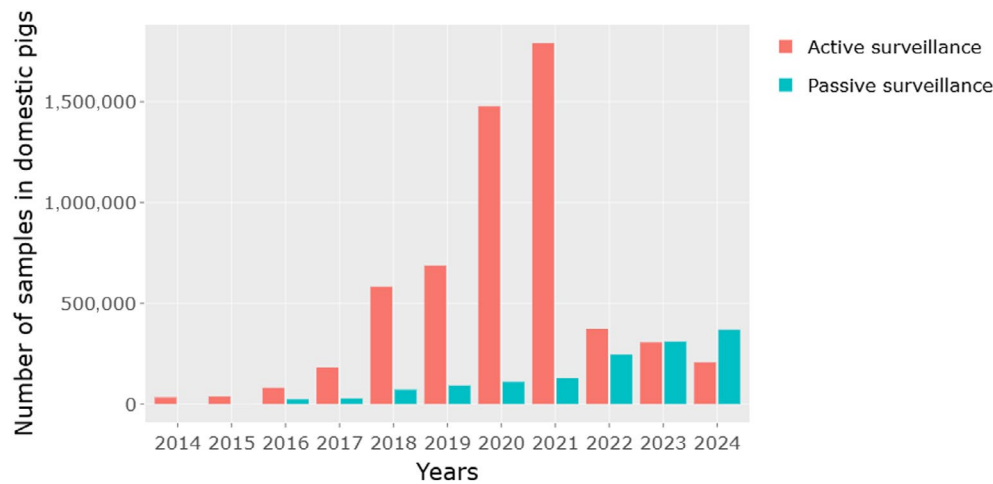


FIGURE 6 Reported number of domestic pig samples analysed for ASF in the Member States per year, differentiating active from passive surveillance components.



FIGURE 7 Reported number of domestic pig samples analysed for ASFv by Member State per year, differentiating active from passive surveillance components.

According to the Member States' responses to the questionnaire (which comprised information on 326 outbreaks out of the total 333 notified), 259 outbreaks were detected through passive surveillance based on testing clinical suspicions (79.5%), whereas 46 outbreaks (14.1%) were detected through enhanced passive surveillance based on systematic testing of dead pigs. Among these, 26 outbreaks were detected in Italy as part of the enhanced passive surveillance during the epidemic phase as described before. Enhanced passive surveillance led to the detection of 68.4% of outbreaks notified in establishments with more than 1000 pigs (26/38 outbreaks), 29.4% of outbreaks from establishments with 100–1000 pigs (10/34 outbreaks) and 3.5% of outbreaks in establishments with fewer than 100 pigs (9/254 outbreaks).

The other 21 outbreaks (6.4%) were detected by sampling pigs in relation to tracing contacts from affected establishments as part of active disease surveillance. No outbreaks were reported to have been detected through active surveillance targeting healthy pigs at slaughter, before movement or through random sampling on establishments.

In the non-EU countries, based on responses to the questionnaire from Montenegro, North Macedonia and Serbia, most outbreaks were detected through passive surveillance (85%, or 266 outbreaks), while 10.5% (33 outbreaks) were detected by active surveillance, and 4.8% (15 outbreaks) were detected through enhanced passive surveillance activities (in establishments ranging from 100 to 500 pigs).

Surveillance results

In the EU, 95% of samples originating from domestic pigs during 2024 were analysed only by PCR (547,952 samples), whereas approximately 3.1% of the samples were analysed only by ELISA tests (17,813 samples) and 1.5% of samples (8900) were tested by PCR and ELISA in parallel. This pattern is very similar to the previous reporting year when 96% of samples were analysed by PCR (590,118 samples), 3.5% (21,564 samples) by ELISA and 0.6% analysed by both tests in parallel (3588 samples). Other tests, such as the indirect immune-peroxidase test (IPT), direct fluorescence antibody test and virus isolation, were used on a limited number of samples (311 samples, 0.054% of tests).

In 2024, none of the non-EU countries submitted data on ASFv laboratory test results on domestic pigs (Table 2).

TABLE 2 Summary of the ASF surveillance results during 2024 per surveillance component for domestic pigs, as reported by the affected Member States.

Surveillance component	Sample level ^a					Establishments sampled ^c
	Serological tests ^b		PCR tests			
	Country	Samples Tested	% POS	Samples Tested	% POS	
Active surveillance	Bulgaria	–		–		
	Croatia	–		–		
	Czechia	2	0	5	0	
	Estonia	–		869	0	97
	Germany	–		–		
	Greece	–		–		
	Hungary	–		112,163	0	
	Italy	–		–		
	Latvia	–		–		
	Lithuania	–		16	0	
	Poland	7481	0.05 (N=4)	70,400	0.4	
	Romania ^d	12,801	0	2106	0.4	464
	Slovakia	188	0	7855	0	334
	Sweden	–		–		
Total active surveillance		20,472	0.02	193,414	0.2	895
Passive surveillance ^e	Bulgaria	–		–		
	Croatia	–		–		
	Czechia	–		3004	0	
	Estonia	–		3299	0	90
	Germany	–		–		
	Greece	–		–		
	Hungary	–		17,311	0	
	Italy	–		24,556	0.3	2696
	Latvia	12	33.3	2942	0.5	58

(Continues)

TABLE 1 (Continued)

Surveillance component	Sample level ^a					Establishments sampled ^c
	Serological tests ^b		PCR tests			
	Country	Samples Tested	% POS	Samples Tested	% POS	
	Lithuania	3908	0.03	3252	0.4	259
	Poland	1495	0.6	265,010	0.2	
	Romania	1051	6.1	44,118	1.3	5654
	Slovakia	6	16.7	132	0.8	25
	Sweden	–		21	0	
Total passive surveillance		6472	1.2	363,645	0.4	8782
Total surveillance		26,944	0.3	557,059	0.3	9677

Note: The proportions of positive test results do not correspond to the prevalence since the sampling was not necessarily done randomly. (–) represents no data submitted.

^aSample data from countries reported to EFSA.

^bSerological tests include samples analysed by ELISA and/or confirmatory tests such as IPT and IB. For analysis purposes, the results of confirmatory tests prevail over ELISA results.

^cSample data were aggregated at the establishment/subunit level (e.g. farms, pastures, slaughterhouse). When subunit_Id was not submitted in the laboratory data or the quality of data were not enough (at least 90% samples provided subunit ID) for aggregating data at the establishment/subunit level, NA appears in the table.

^dRomania analysed 76 samples by direct fluorescence antibody test, which are not included in the table.

^eThis includes also the systematic testing of dead pigs as part of enhanced passive surveillance.

3.2 | Disease epidemiology and ASF surveillance in wild boar

HIGHLIGHTS OF WILD BOAR

No ASF emergence in previously unaffected Member States occurred in 2024, while in the non-EU neighbouring countries, Albania and Montenegro notified ASF outbreaks in wild boar for the first time.

A notable long-distance translocation event occurred in Germany in June 2024, when the disease was introduced into south-western Germany.

Sweden demonstrated freedom from ASF, and the last restrictions were lifted in September 2024.

The total number of ASF outbreaks notified among wild boar in the affected Member States remained relatively stable (7677 vs. 7853 outbreaks in 2023), and for the non-EU countries, the number of outbreaks in wild boar decreased from 308 in 2023 to 215 in 2024. Poland was the Member State with the highest number of ASF outbreaks notified among wild boar, accounting for 30% of notified ASF outbreaks among wild boar in the EU.

The proportion of positive PCR tests in found dead wild boar presented a clear seasonality in Hungary, Italy, Poland and Slovakia with higher peaks in winter, consistent with historical trends in these countries. No clear trends were observed in other countries.

Samples taken from hunted wild boar represented 91.5% of the samples analysed. Only 0.4% of them tested positive by PCR, still leading to the detection of 28.4% of the wild boar outbreaks. In contrast, samples taken from found dead wild boar represented only 5.2% of the samples analysed. However, 29% of them tested positive by PCR, leading to the detection of 70.4% of the wild boar outbreaks in the EU. The rest of the samples were from road-killed wild boar (3.3% of the total analysed), which led to the detection of 1.2% of positive wild boar.

The overall number of serological tests used in hunted wild boar in the EU decreased by 21%, except in Hungary (+83%), Poland and Romania (stable). The number of PCR tests has remained stable over time.

3.2.1 | Spatial distribution among wild boar

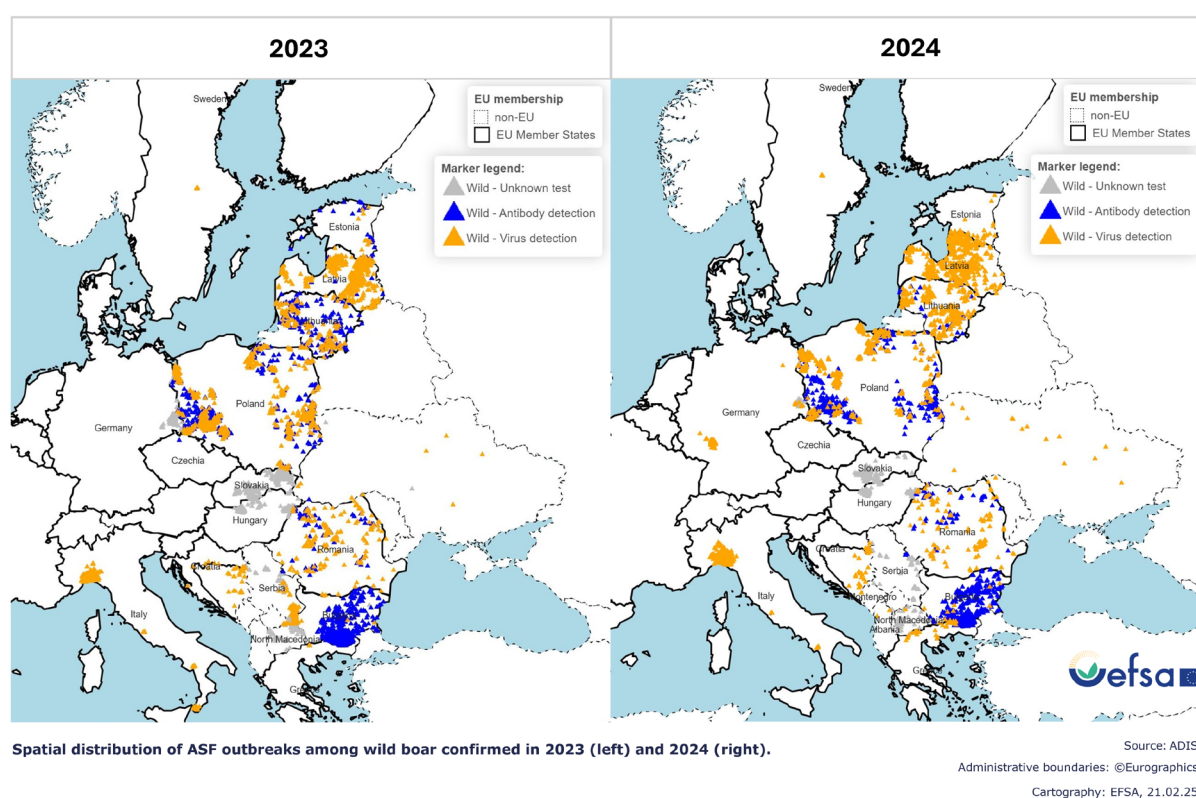
During 2024, ASF outbreaks among wild boar were notified by 14 Member States (Bulgaria, Croatia, Czechia, Estonia, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Poland, Romania, Slovakia and Sweden¹⁰), all of them already affected in 2023. Among these 14 affected Member States, four (Czechia, Estonia, Hungary and Sweden) notified ASF only in wild boar. Sweden demonstrated freedom from disease, and the last restrictions were lifted in September 2024. The ASF outbreaks among wild boar notified to ADIS during 2023 and 2024 were plotted on parallel maps to analyse the spatial distribution (Figure 8). The distribution of ASF outbreaks among wild boar in 2024 in the EU was very similar to the previous year, with

¹⁰The wild boar outbreaks notified in 2024 in Sweden did not refer to wild boar that had died during 2024, but rather old carcass remains.

a few notable changes. In Germany, ASF outbreaks were notified for the first time in the southwest of the country, where the virus locally spread, affecting domestic pigs as well. In contrast, in the eastern part of the country, the situation improved with only one outbreak notified in northeast (Brandenburg) and fewer outbreaks in previously affected areas in southeast compared with 2023. In Poland, where 30% of EU outbreaks among wild boar were notified, ASF spread during 2024 towards the centre of the country, affecting regions previously free of the disease. In Italy, ASF outbreaks among wild boar were notified mostly in northern regions, while the situation improved in other affected areas compared with 2023. Finally, in Greece, ASF outbreaks were notified close to the border with Bulgaria and North Macedonia, where the disease is very active.

In the non-EU neighbouring countries, seven countries notified ASF in wild boar (Albania, Bosnia and Herzegovina, Moldova, Montenegro, North Macedonia, Serbia and Ukraine). This marked the first year of ASF detection in Albania and Montenegro, while no other changes were observed in the spatial distribution in the region (Figure 8).

Where available, the type of test used for outbreak confirmation is presented on the maps (Figure 8). In the EU, most wild boar outbreaks were confirmed by virus detection (73%), while 17% of outbreaks were detected through serological tests. Most wild boar outbreaks detected by serology were from Bulgaria (54%) and Poland (38%). In Bulgaria, from 717 outbreaks notified, 96.8% (694) outbreaks were 'killed' (presumably hunted) wild boar tested by serological methods, 2.8% were hunted 'killed' wild boar tested by PCR (20) and 0.4% were 'dead' wild boar tested by PCR (2) or with no information about the diagnostic test (1).



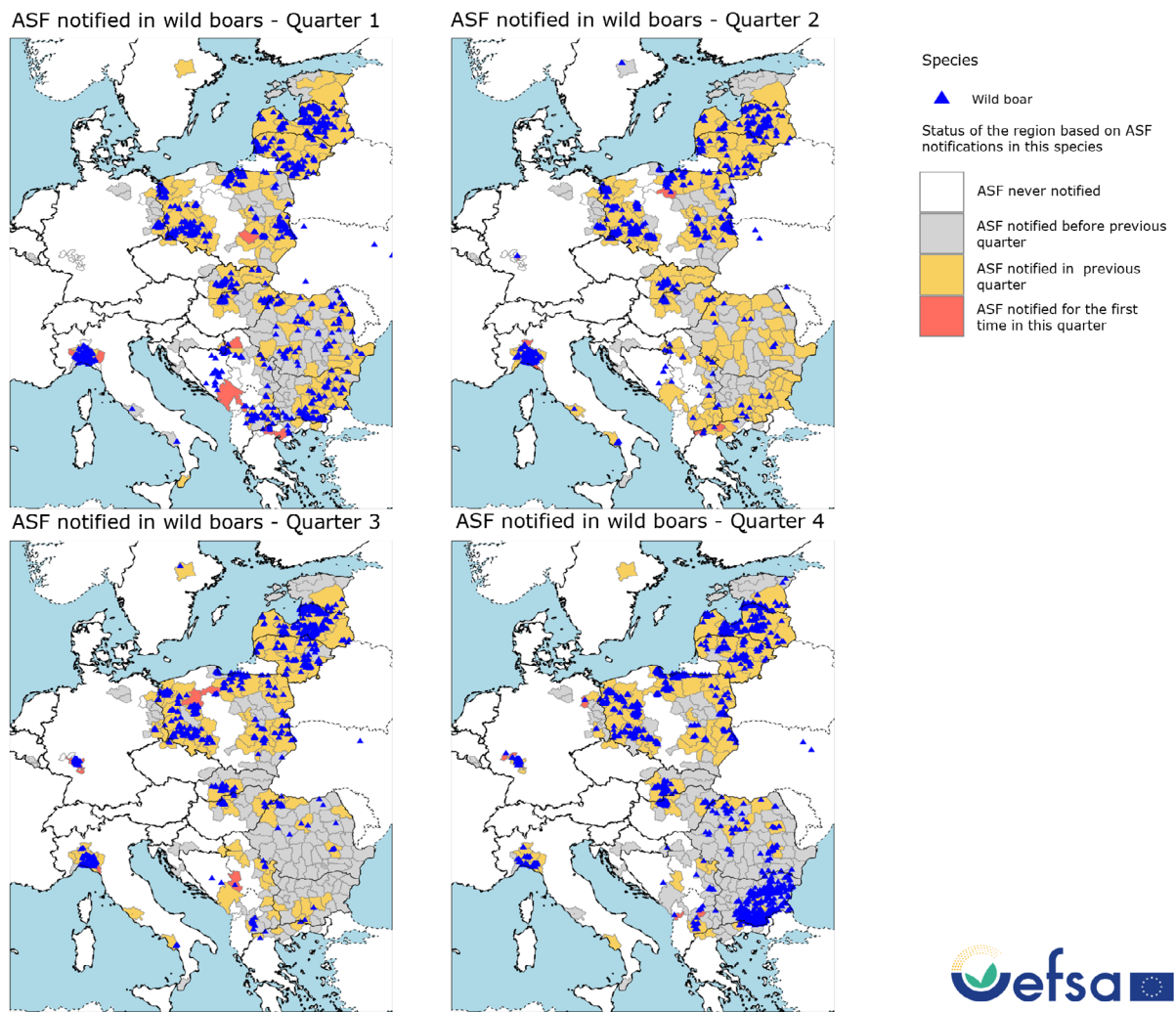
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FIGURE 8 Spatial distribution of ASF outbreaks among wild boar confirmed in 2023 (left) and 2024 (right).

The spatio-temporal dynamics of ASF among wild boar during 2024 are illustrated in Figure 9, following the same criteria as per domestic pigs (Section 3.1.2). During 2024, an average of 103 NUTS 3 regions notified ASF outbreaks among wild boar per quarter (min: 91, max: 115). Poland accounted for 32% of these regions. These figures are comparable to 2023, when an average of 104 NUTS 3 (min: 92, max: 114) were affected by quarter. As in previous years, the maximum number of NUTS 3 affected was during the first and fourth quarters, aligning with the colder months. However, new regions were predominantly affected during the second and third quarters, with eight new regions in each of these quarters compared to four in the others.

In 2024, 97% of ASF outbreaks notified among wild boar in the EU were in NUTS 3 regions that had previously experienced the disease, either in the previous quarter (89%) or at some point before (8%). The remaining 3% of outbreaks among wild boar were notified in 24 previously unaffected NUTS 3 regions, located in Germany (19), Italy and Poland (5 each) and Greece (4). Since ASF was introduced to south-western Germany in June 2024, most of the outbreaks notified in Germany were in that region (694, 72%). Meanwhile, the number of outbreaks in previously affected areas in the East (Brandenburg and Saxony) decreased by nearly 70%, from 888 outbreaks in 2023 to 273 outbreaks in 2024.

In the non-EU countries, 94% of the outbreaks notified in wild boar during 2024 occurred in previously affected NUTS 3 regions, either in the previous quarter (56%) or at some time before (38%). The remaining 6% (14 outbreaks) were notified in six previously unaffected NUTS 3 regions, located in Albania (2), Montenegro (1), North Macedonia (1) and Serbia (2) (Figure 9).



Spatio-temporal distribution of ASF outbreaks notified among wild boar in 2024 per quarter per NUTS 3

Source: ADIS

Administrative boundaries: ©Eurographics

Cartography: EFSA, 21.02.25

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FIGURE 9 Spatio-temporal distribution of ASF outbreaks notified among wild boar in 2024 per quarter per NUTS 3.

3.2.2 | Temporal dynamics among wild boar

Annual trend in wild boar

The number of ASF outbreaks among wild boar in the EU declined by 2.2% in 2024 in comparison with 2023 (7677 vs. 7853 outbreaks) (Figure 10). Poland notified the highest number of ASF outbreaks in the EU (2311 outbreaks, accounting for 30%), followed by Italy (1205) and Germany (966).

In comparison with 2023, an increase in the number of notified outbreaks was observed in Bulgaria, Croatia, Germany, Greece, Hungary, Italy, Latvia and Lithuania. In contrast, the number of outbreaks notified was reduced in Czechia, Estonia, Poland, Romania, Slovakia and Sweden. See Table 6 for more detailed information.

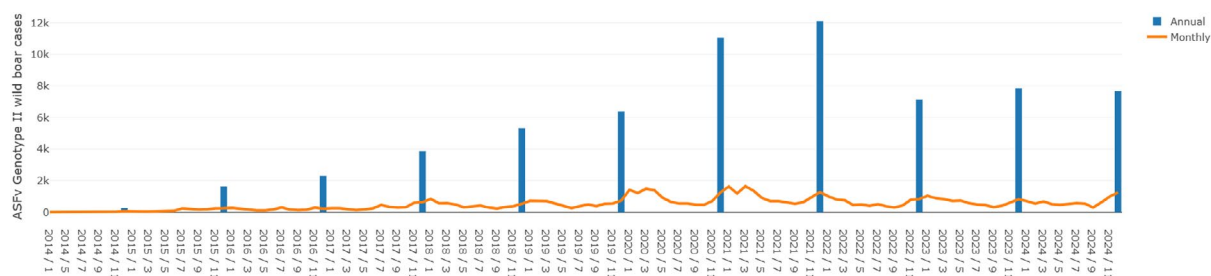


FIGURE 10 Monthly (orange line) and annual (blue bars) numbers of ASF outbreaks among wild boar notified by EU Member States to the Animal Diseases Information System, from 2014 to 2024.

In the non-EU countries, the number of outbreaks among wild boar in 2024 decreased compared with the previous year (215 vs. 308 in 2023). Serbia was the non-EU country with the highest number of ASF outbreaks among wild boar (Figure 9), with 101 outbreaks notified across the territory, experiencing a decrease of 53% in comparison with 2023. It was followed by North Macedonia with 51 outbreaks, Bosnia and Herzegovina (38) and Ukraine (15).

The proportion of PCR-positive samples from wild boar found dead was analysed for each country in a monthly basis. Figure 11 presents the distribution of the monthly proportions aggregated by year in boxplots, for all countries affected during 2024 that have reported laboratory data to EFSA for more than three consecutive years. These proportions are indicative of disease dynamics but may also reflect changes in surveillance strategies, surveillance objectives, wild boar population density and other ecological factors affecting wild boar mortality. Trends can be observed within each country, but comparisons between countries should be avoided.

In the Baltic States (Estonia, Latvia, Lithuania), there was a decrease in positive proportions during the first years after ASF introduction, reaching a minimum in 2019. This was followed by an increase in the proportions from 2021 onwards. Estonia showed wide variability, likely due to substantial differences between months. In Germany, a general decrease in positive proportions has been observed since 2021, while these proportions remained relatively stable in Hungary, Poland and Slovakia. Romania experienced a big decline in the last year, but no clear trend can be observed there.

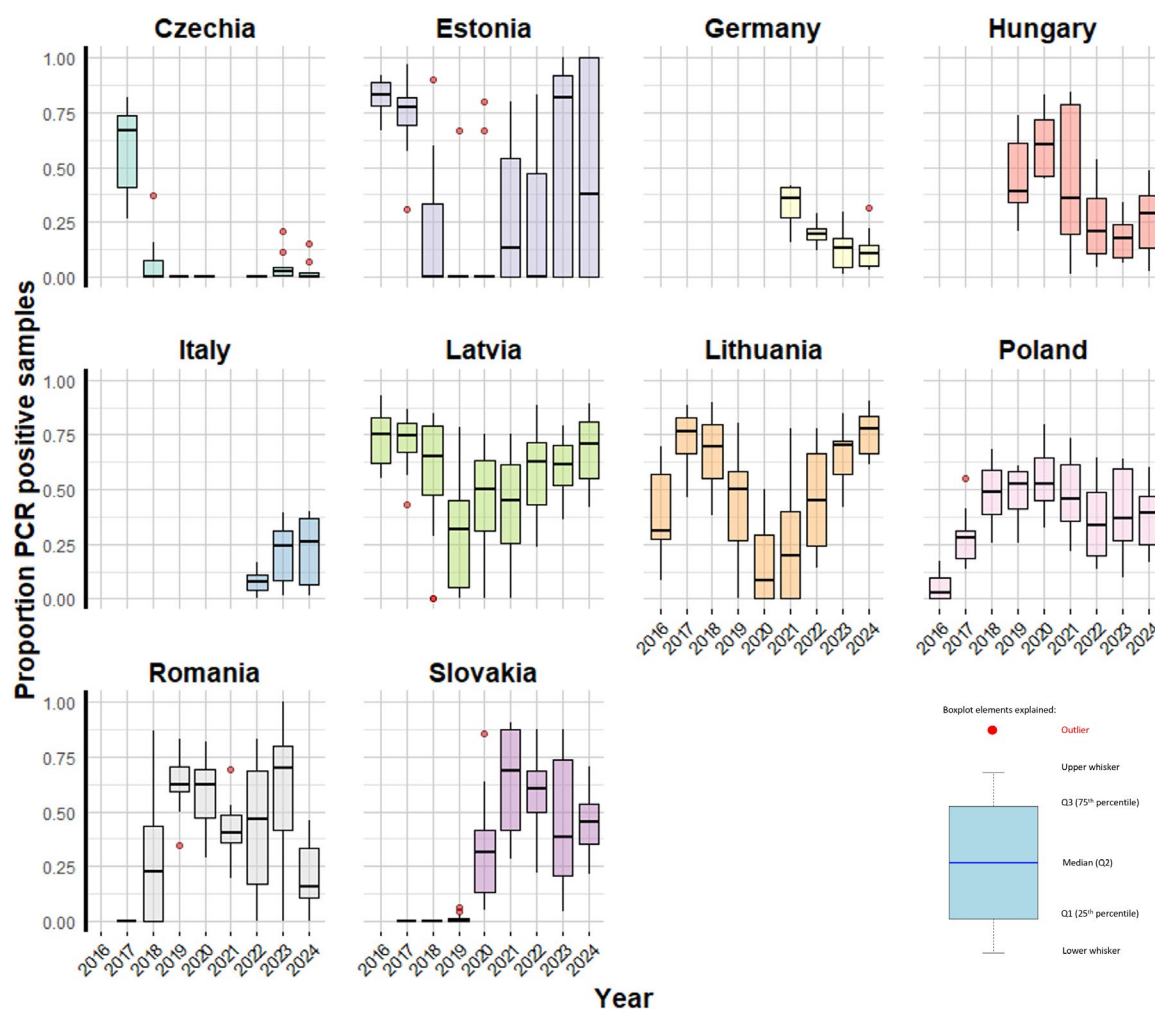


FIGURE 11 Monthly proportion of wild boar samples testing positive to ASFv by PCR aggregated by year, for wild boar found dead in the reporting countries with more than 3 years of data reported.

Monthly seasonality among wild boar

The seasonality of PCR-positive wild boar found dead was calculated and plotted only for the countries affected during 2024 that have reported data to EFSA for more than three consecutive years. Figure 12 shows the proportions of PCR-positive samples from wild boar tested through passive surveillance activities. The proportions of PCR-positive samples from active surveillance remained low throughout the year without visible seasonal patterns and are thus not shown.

In most of the Member States, 2024 data (green line) follow the historical seasonal trends (blue line), suggesting that the seasonal patterns are due to consistent country-specific factors, potentially related to ecology, hunting practices, disease management and surveillance strategies. A marked seasonality with a peak in winter and the lowest proportions in summer was observed in Hungary, Italy, Poland and Slovakia. No clear trends were observed in other Member States.

The observed winter seasonality has been discussed in previous EFSA reports (EFSA, 2020, 2021, 2022c, 2023). Potential driving factors include aspects of wild boar ecology and management strategies (e.g. carcass search efficiency), as well as the longer survival of the carcass and the virus in the environment.

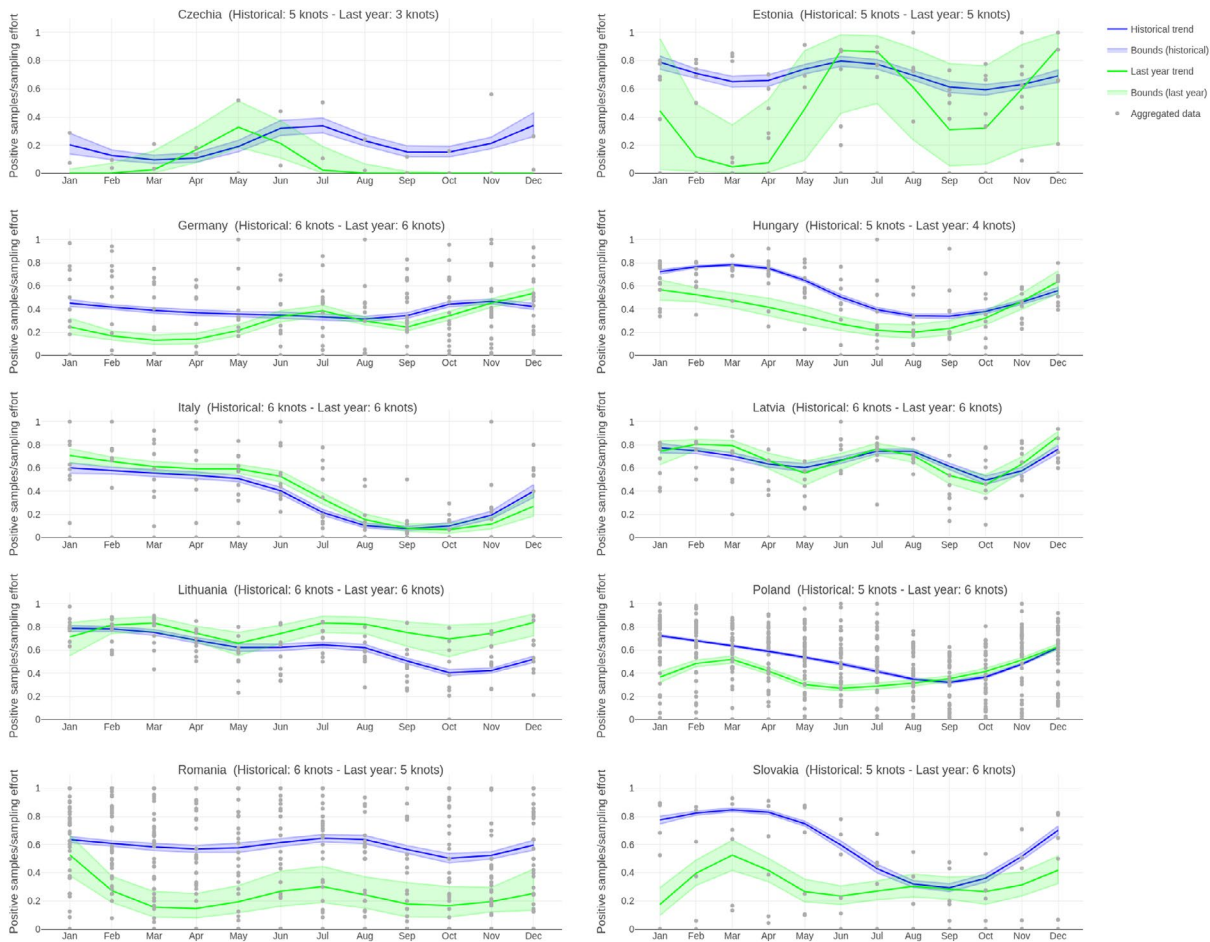


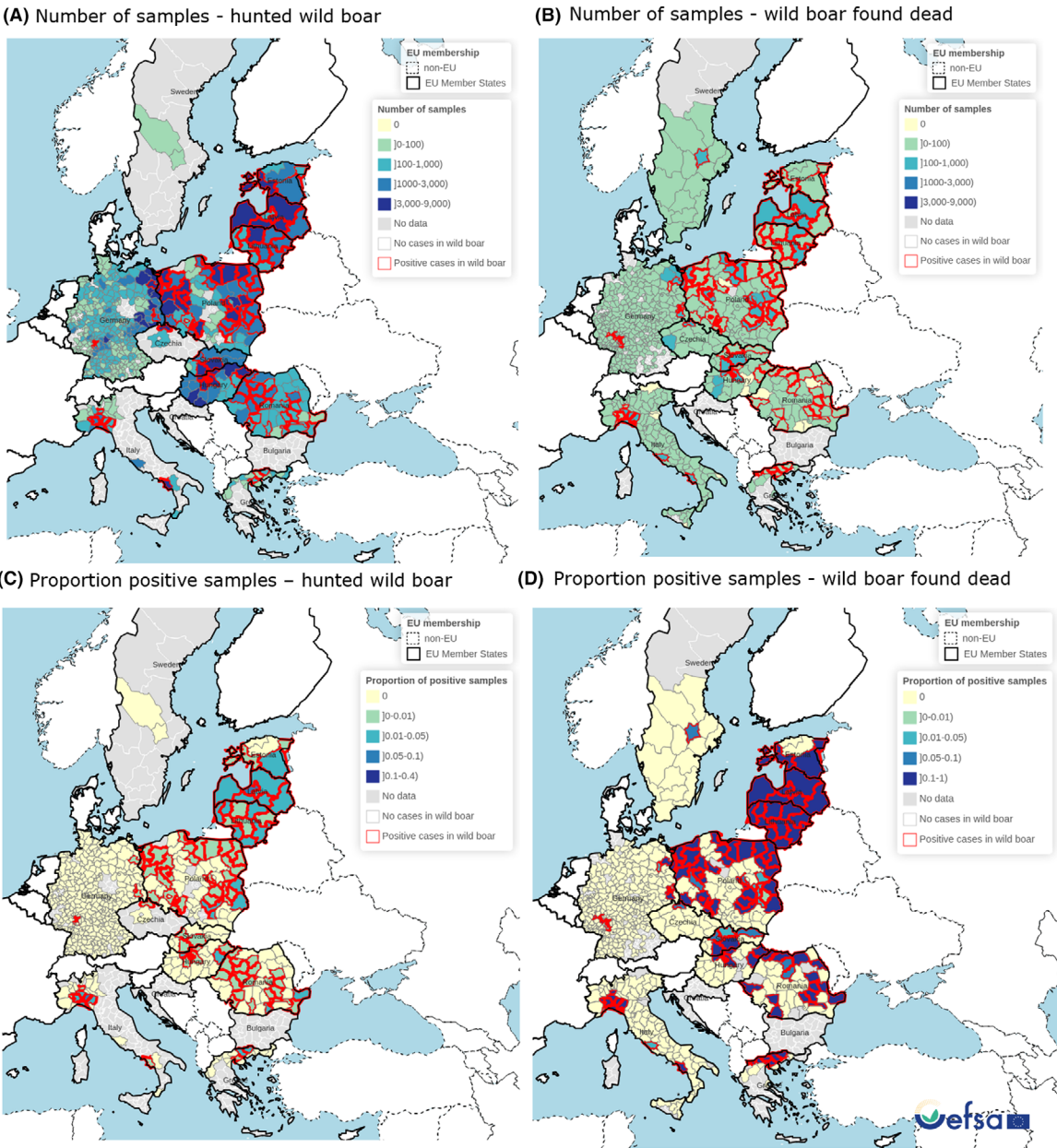
FIGURE 12 Average proportion of wild boar samples testing positive to ASFv by PCR, aggregated by calendar month and NUTS 3 region, for wild boar found dead (passive surveillance) in the reporting countries with more than 3 years of data reported. Blue line indicates historical data and green last year's data.

3.2.3 | ASF surveillance in wild boar populations

All Member States that replied to the questionnaire (12/12) reported testing wild boar found dead or sick in the whole country, including wild boar killed by vehicle collision. Similarly, all the respondent Member States reported testing hunted wild boar. However, some differences were observed in relation to the scale of surveillance of hunted wild boar. Most of the respondents reported testing all hunted wild boar in restricted zones (Czechia, Germany, Italy, Lithuania, Romania and Poland). Additionally, Germany tested also 28% of the hunted wild boar in free zones. Slovakia tested approximately 50% of the hunted wild boar in restricted zones, while Estonia tested between 50% and 100% of those animals, and Latvia tested all hunted wild boar from specific areas that are dynamically assigned based on risk assessment. Other two Member States reported testing different proportions of hunted wild boar in the whole country (Greece 1% and Hungary 49%). Finally, one Member State (Sweden) reported testing all hunted wild boar in the restricted zone and in a voluntary basis in the areas surrounding or directly adjacent to the restricted zone.

The spatial distribution of the number of wild boar samples collected by NUTS 3 region, for hunted and found dead wild boar, is presented in [Figure 13A,B](#), respectively. The NUTS 3 regions where at least one sample of wild boar tested positive in 2024 are highlighted with red borders. The maps at the bottom represent the prevalence of ASF in hunted wild boar ([Figure 13C](#)) and in wild boar found dead ([Figure 13D](#)).

As observed in 2023 (EFSA, 2023), the highest number of samples tested was from hunted wild boar (represented in dark blue in [Figure 13A](#)) in affected regions and their bordering areas (e.g. Baltic States, Poland, Eastern Germany, Slovakia and Hungary). The comparison of [Figure 13C,D](#) provides a clear visual illustration of the higher prevalence of ASF in found dead animals (> 10% in most affected NUTS 3 regions in Europe) than in hunted wild boar (< 1% in most affected NUTS 3 regions in Europe).



Spatial distribution of the number of ASF samples tested from wild boar hunted (A), found dead (B); and the proportion of positive samples from hunted wild boar (C) and found dead (D) by NUTS 3 regions.

Source: ASF laboratory results submitted to EFSA

Administrative boundaries: ©Eurographics

Cartography: EFSA, 21.02.25

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FIGURE 13 Spatial distribution of the number of ASF samples tested from wild boar hunted (A) and found dead (B); and the proportion of positive samples from hunted wild boar (C) and found dead (D) by NUTS 3 regions.

Twelve Member States submitted laboratory data related to test results from wild boar (Table 3). In the EU, 469,049 samples from wild boar were analysed for ASFv in 2024. This represents a slight increase (5%) compared to the 448,643 samples of the previous year, when the same number of Member States reported this type of data.

As shown in Figure 14, more than 90% of the samples analysed in the Member States originated from hunted wild boar, followed by wild boar found dead¹¹ (5.2%) and road kills¹² (3.3%). The number of samples from wild boar found dead increased by 12.4% in comparison with 2023, marking the highest number recorded since 2020. Of note, Germany and Poland together accounted for 62% of hunted wild boar samples and 64% of found dead wild boar samples tested in the EU. While most countries have an over-representation of samples from hunted wild boar, the surveillance strategy in Sweden heavily relied on the search and testing of wild boar carcasses (Figure 15). It is worth noting that in Czechia and Italy, although samples from hunted animals represent the majority of the samples, the number of found dead wild boar tested is bigger than in many other Member States.

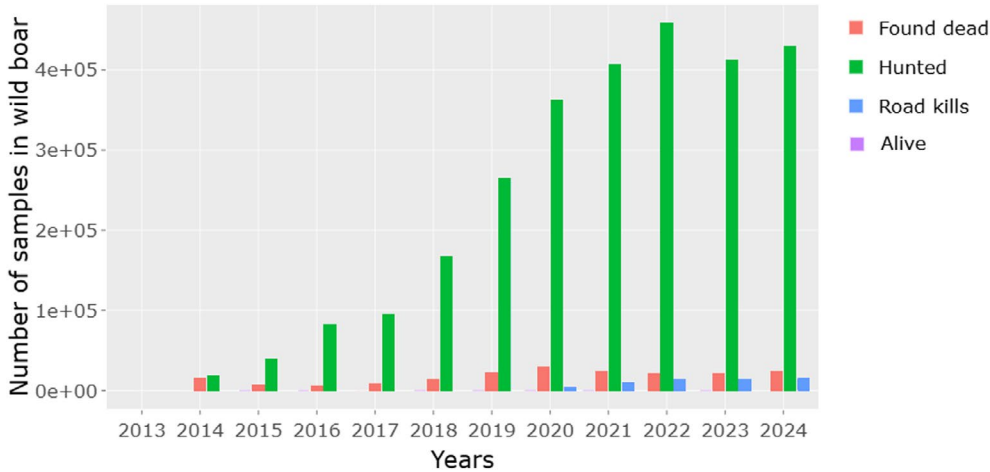


FIGURE 14 Number of samples from wild boar analysed for ASF across all EU reporting countries per year, differentiating the type of animal sampled.

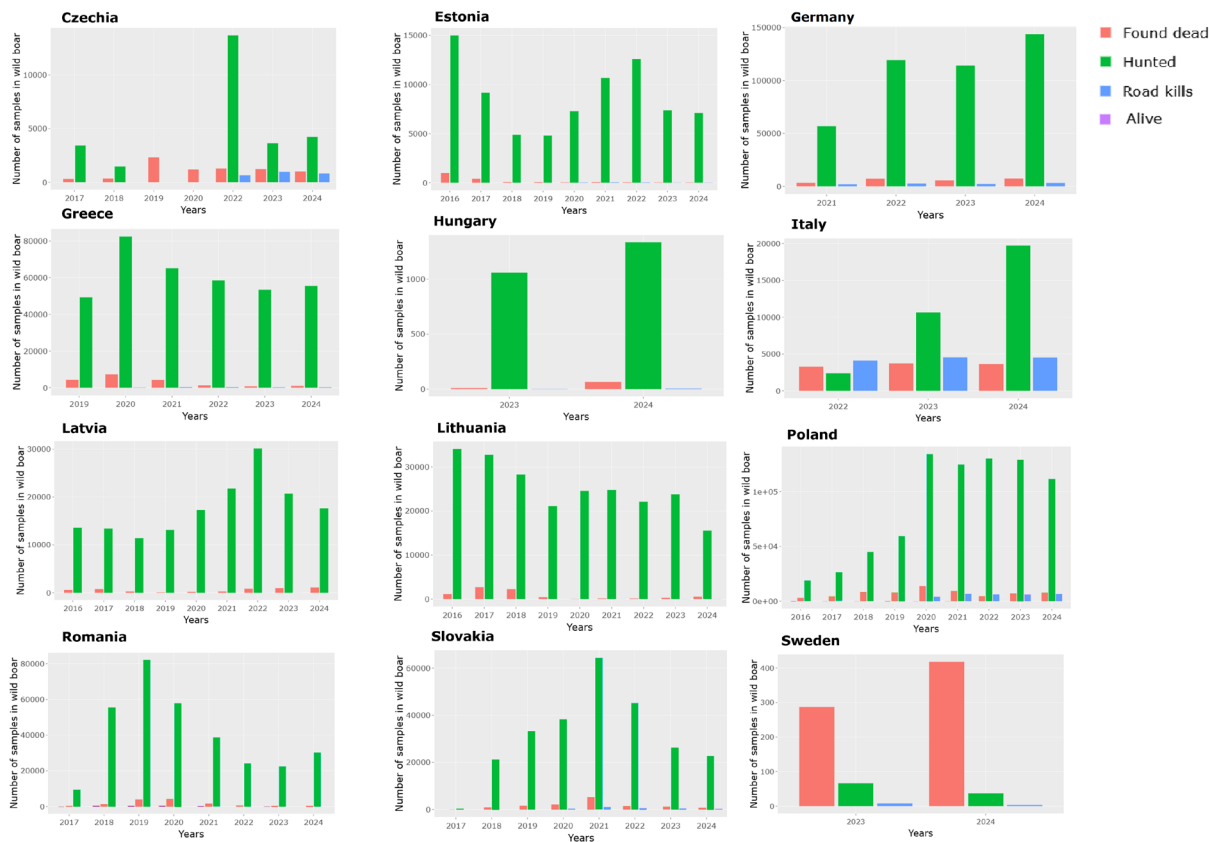


FIGURE 15 Number of samples from wild boar analysed for ASF for each EU reporting country per year, differentiating the type of animal sampled.

¹¹This category includes the wild boar found dead, alive symptomatic, culled and hunted symptomatic.

¹²Wild boar samples were classified as road-killed and reported as such by the countries, referring to wild boar found in close proximity to roads or railways.

During 2024, approximately 74% of wild boar samples in the EU were tested only by PCR (347,688 samples), 17% were tested by both PCR and ELISA in parallel (81,234 samples), 3.4% were tested only by ELISA (16,069 samples), and 0.15% were tested only by other methods such as IPT (717 samples; data not shown in Table 3). Most IPT tests were conducted in Slovakia on hunted wild boar samples (96% of the total IPT tests). There has been a decline in the number of samples from hunted wild boar analysed by serological methods (mostly ELISA) for countries reporting laboratory data (excluding Bulgaria, where approximately 97% of the wild boar outbreaks notified in ADIS were confirmed by serology of hunted wild boar). The number of samples analysed by serology decreased by 21% (from 152,636 in 2023 to 119,843 in 2024). This decline was mostly driven by the reduced testing in Lithuania and Estonia, despite an increase in Hungary of these tests (+83%). No changes were observed in the number of PCR tests performed in the EU in the last years. The positivity rates of wild boar samples differed between the tests used and the category of wild boar sampled (hunted vs. found dead vs. road-killed). Overall, a positivity rate of 1.9% was found for the wild boar samples analysed by PCR in the EU, and 1.2% for the ones analysed by serological tests. As shown in Table 3 and Figure 13, the positivity rate was by far the highest for found dead animals tested by PCR (29%), consistent with all previous EFSA reports (EFSA, 2018, 2020, 2021, 2024, 2022c, 2023). Among countries that tested more than 500 found dead wild boar, this positivity rate ranged from 1.51% in Czechia to 78.2% in Lithuania. The positivity rate among hunted animals tested by PCR was 0.41%, and 0.74% for the road-killed wild boar.

Similar results are observed in serological tests, where the observed proportion of positive serological tests was higher in found dead wild boar (4.3%) than in hunted wild boar (1.1%) and road-killed wild boar (1.4%). When considering the laboratory results altogether, samples from hunted wild boar represented 91.5% of wild boar samples analysed in the EU and led to the detection of 28.4% of outbreaks, while samples from found dead wild boar represented 5.2% and contributed to the detection of 70.4% of outbreaks. Finally, road-killed samples were 3.3% of total samples analysed and led to the detection of 1.2% of outbreaks in wild boar.

TABLE 3 Summary of the ASF surveillance results during 2024 per type of wild boar sampled, as reported by the affected Member States.

Sampled population	Country	Serological tests ^a		PCR tests		Total	
		Samples tested	% POS	Samples tested	% POS	Samples tested	% POS ^b
Alive	Slovakia	1	0	1	0	1	0
Total Alive		1	0	1	0	1	0
Found dead	Czechia	86	3.5	925	1.5	1011	1.7
	Estonia	–		30	43.3	30	43.3
	Germany	–		7441	12.8	7441	12.8
	Greece	3	100	62	33.9	65	36.9
	Hungary	6	66.7	1061	27.2	1061	27.2
	Italy	–		3648	25	3648	25
	Latvia	–		1101	72.2	1101	72.2
	Lithuania	–		541	78.2	541	78.2
	Poland	647	0.5	7754	42.2	7778	42.1
	Romania	101	6.9	267	26.2	368	20.9
	Slovakia	455	7.9	671	31.4	671	32.5
	Sweden	–		418	1.9	418	1.9
Total Found dead		1298	4.3	23,919	29.2	24,133	29
Hunted	Czechia	702	7.7	3530	0.7	4232	1.8
	Estonia	–		7098	0.4	7098	0.4
	Germany	–		143,753	0.06	143,753	0.06
	Greece	–		1336	0.4	1336	0.4
	Hungary	7361	2.1	55,439	0.4	55,439	0.4
	Italy	–		19,721	1.3	19,721	1.3
	Latvia	1	0	17,663	2.4	17,663	2.4
	Lithuania	1956	1.3	15,468	1.02	15,554	1.2
	Poland	72,016	0.8	110,924	0.2	111,595	0.8
	Romania	15,112	1.5	15,089	0.6	30,201	1.1
	Slovakia	22,695	1.2	22,695	0.5	22,695	1.5
	Sweden	–		37	0	37	0

(Continues)

TABLE 3 (Continued)

Sampled population	Country	Serological tests ^a		PCR tests		Total	
		Samples tested	% POS	Samples tested	% POS	Samples tested	% POS ^b
Total Hunted		119,843	1.1	412,753	0.4	429,324	0.7
Road kills	Czechia	–		817	0	817	0
	Estonia	–		20	0	20	0
	Germany	–		3165	0.2	3165	0.2
	Greece	–		5	0	5	0
	Hungary	1	0	261	1.2	261	1.2
	Italy	–		4536	0.2	4536	0.2
	Lithuania	2	0	21	57.1	21	57.1
	Poland	31	3.23	6511	1.3	6512	1.3
	Slovakia	184	1.1	250	0.8	250	1.2
	Sweden	–		3	0	3	0
Total Road kills		218	1.4	15,589	0.7	15,590	0.8
Total wild boar surveillance		121,360	1.2	452,262	1.9	469,048	2.1

Note: The total number of samples tested does not equal the number of ELISA and PCR tests, since some samples were analysed by ELISA, PCR and/or other tests in parallel. (–) represents no data submitted.

^aSerological tests include samples analysed by ELISA and/or confirmatory tests such as IPT and IB. For analysis purposes, the results of confirmatory tests prevail over ELISA results.

^bA positive sample was defined as a sample that tested positive either by the PCR or by the serological test.

3.3 | Translocation events

In 2024, only one long-distance viral translocation event was noteworthy. This was the jump to south-western Germany in June 2024. Presumably, the disease was introduced in April or May 2024 into the region's wild boar population. The sequence of the virus clearly showed that it is not identical to the ASFv variants that are or have been circulating in the east of Germany, indicating that the virus was introduced from outside of the country. Epidemiological investigations revealed that this area had a high relative risk of introduction from other areas of Europe, with a large human population, a high density of roads and railways and many seasonal workers. Neither the actual introduction pathway nor the exact origin of the virus was identified. Many positive carcasses were found in one natural reserve area, which was inaccessible for many weeks due to flooding. From there, the disease spread to the wild boar populations in the vicinity.

3.4 | Impact of the disease

HIGHLIGHTS FROM THE IMPACT OF THE DISEASE

In 2024, the size of restricted zone III remained stable as compared to last year. The size of restricted zones II + III showed a slight increase, at a similar level as last year (+1.9%, +13,979 km²).

The incidence rate in affected NUTS 3 regions remained stable in most Member States, except in Italy where an increase in incidence was observed mainly due to the ASF cluster in the North.

Overall, there was no change in the number of wild boar losses due to ASF (found dead or killed positive to ASF) in the Member States compared with the previous year (2024: 10,155; 2023: 10,160). However, there was some variation between countries with increases in Bulgaria, Greece and Latvia, and decreases in Poland, Romania, Slovakia and Sweden. The apparent proportion of losses in relation to wild boar population in the affected Member States increased from an average of 0.45% in 2023 to 0.51% in 2024.

In non-EU-affected countries, the total number of reported wild boar lost to ASF in 2024 was 752, which was 54% more than the previous reporting year.

The analysis of the annual hunting bags at country level confirmed the rebound of the wild boar population size in the Baltic States that started in 2019. It also showed a stabilising trend in Bulgaria (following a decline after ASF introduction) and a decreasing trend in Hungary (following ASF introduction). Those trends are consistent with the overall pattern observed in Europe.

Estimating the impact associated with animal disease is very complex, as besides the direct costs associated with the death of the animals, many other aspects are affected including trade, welfare of the animals, society (e.g. disruption in outdoor

activities including hunting, sport events, tourism). This report analysed three main aspects as indicators of the impact of ASF in affected countries: (i) the restriction zones due to ASF including the pigs and establishments in those areas; (ii) ASF impact in domestic pigs including outbreak size, incidence and animals lost; and (iii) the wild boars reported as dead due to ASF and the evolution of wild boar abundance over time.

3.4.1 | Evolution of the ASF restricted zones

Restriction zones are crucial for controlling ASF, outlining areas where movement prohibitions and other measures are enforced. Data from the European Commission on ASF restricted zones, according to Annex I of Commission Implementing Regulation (EU) 2021/605, was used to evaluate the size of ASF restricted zones at both EU (Figure 16) and country level since 2014 (Figures 17). Two types of zones were considered in these graphs: restricted zones III (approximating the restricted zones due to the occurrence of ASF outbreaks among domestic pigs) and the union of restricted zones II and III (approximating the restricted zones due to the occurrence of ASF outbreaks among either wild boar or domestic pigs). An updated map of these restricted zones is available [online](#).

After a continuous increase between 2017 and 2021, the overall size of restricted zones III decreased for the first time in 2021, from around 350,000 km² in early 2021 to 260,000 km² in late 2022. Since then, the size of restricted zone III has remained very stable (Figure 16). The size of restricted zones II + III underwent a very slight increase, similar to last year (+1.9%, +13,979 km²).

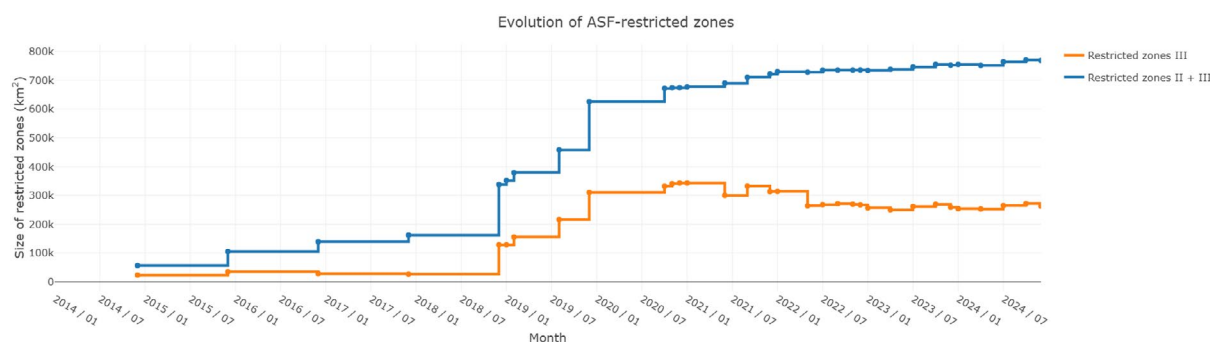


FIGURE 16 Temporal evolution of the size of the restricted zone III (in orange, approximating the restricted area due to the occurrence of ASF in domestic pigs) and restricted zones III + II (in blue, approximating the restricted area due to the occurrence of ASF in wild boar and/or domestic pigs) in the EU from 2014 to December 2024.

Important differences were observed among Member States regarding restricted zone III (due to ASF outbreaks in domestic pigs), ranging from 0% to 100% of the affected Member State. In 2024, Romania accounted for 91% of the restricted zones III in the EU, with its entire territory under restriction. In other Member States, restricted zone III covered less than 10% of their territories (Figure 18). Considering the median of the restricted zones during 2023 and 2024, the size of restricted zones III increased in Croatia, Germany, Greece, Italy, Poland and Slovakia, while it remained stable in Romania; and decreased in Bulgaria, Estonia, Latvia and Lithuania. More details can be found in Table 5. The restricted zone III fluctuated along the year based on the evolution of outbreaks in domestic pigs, with peaks in summer and a decrease afterwards (e.g. Germany and Lithuania). Officially lifting the restrictions usually requires an absence of outbreaks for at least 12 months (Regulation (EU) 2021/605).¹³

¹³In exceptional situations, the restricted zones can be lifted earlier.

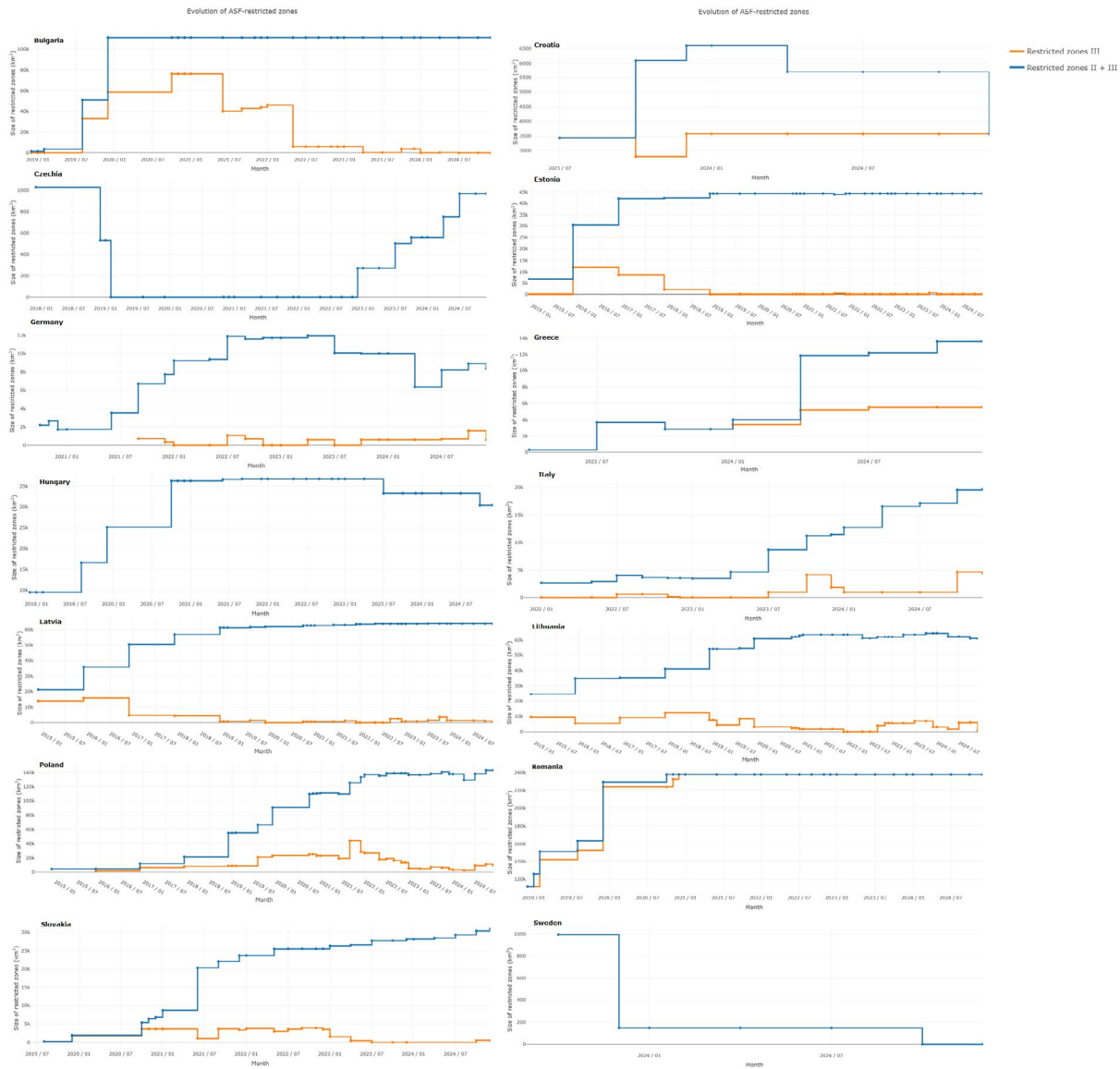


FIGURE 17 Temporal evolution of restricted zones III and restricted zones II + III, in square kilometres per Member State from 2014 to December 2024.

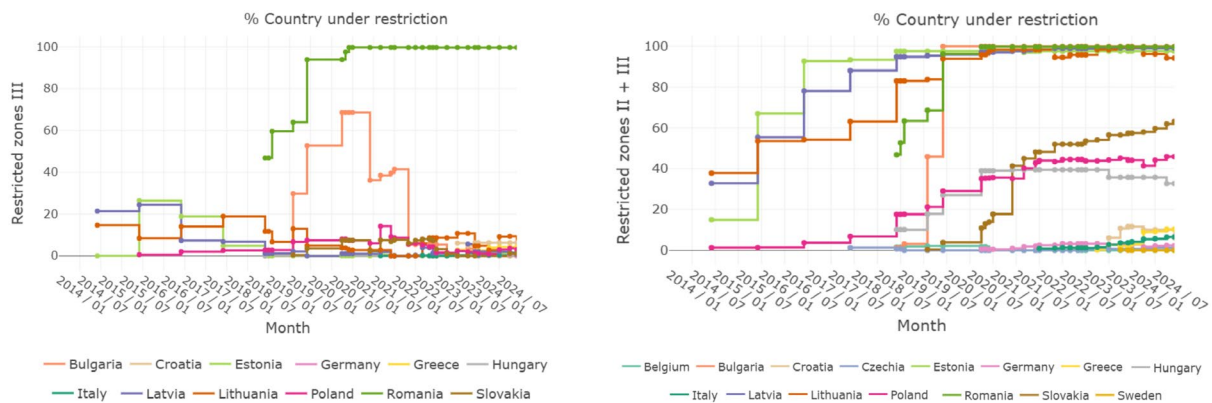


FIGURE 18 Temporal evolution of the percentage of the country under restriction zones III (left) and restricted zones II + III (right) per Member State from 2014 to December 2024.

As last year, the situation was quite different when analysing the combined restricted zones II and III, which reflect areas affected by ASF outbreaks in either wild boar or domestic pigs. In 2024, five Member States (Bulgaria, Estonia, Latvia, Lithuania and Romania) had over 90% of their territory covered by restricted zones II + III. Hungary (33%), Poland (46%) and Slovakia (63%) had more than one-third of the territory under restriction. In other affected countries, these restricted zones covered less than 10% of the territory: Croatia (6%), Czechia (1%), Germany (2%), Greece (10%) and Italy (7%). In Sweden, less

than 0.1% of the country was under restriction at the beginning of 2024, and these restrictions were lifted in September 2024.

Considering the median size of the restricted zones II + III during 2023 and 2024, there was an increase in Croatia, Czechia, Greece, Italy and Slovakia. These zones remained stable in Bulgaria, Estonia, Latvia and Poland, while they decreased in Hungary, Germany, Lithuania and Sweden. More details can be found in [Table 6](#).

It is important to note that while some countries, like Sweden, have small areas affected, the spread of the disease to newly affected areas can have a significant impact, particularly if these areas have a high density of pig establishments. To assess this, the percentage of pig establishments and pigs located in restricted zones (III and II; as well as restricted zone I where ASF is not present but restrictions are in place) in the affected Member States was estimated for those that submitted pig population data to EFSA (see [Table 1](#)).

As shown in [Table 4](#), the percentage of the industry affected varies considerably between countries, depending on the location of ASF and the pig production areas. In Greece and Slovakia, the proportion of the territory under restriction is higher than the proportion of establishments and pigs under restriction, indicating that major swine commercial production remains outside ASF-affected areas. However, when restricted zones include high-value production areas, the impact can be significant even if the zones affect a low-density area or a small percentage of the industry. In Italy, 10.6% of the territory is under restriction (I + II + III); less than 7% of establishments and over 13% of pigs are impacted. This suggests that the restricted area contains a density of pig establishments lower than average, but the establishments are larger than average, particularly in the affected northern region of the country.

TABLE 4 Statistics on the country area, pigs and pig establishments under restriction (restricted zones I, II and III) in the Member States submitting pig population data to EFSA.

Country	% country under restriction (zones I + II + III)	N. Establishments	N. Establishments under restriction	% establishments under restriction	N. Pigs	N. Pigs under restriction	% pigs under restriction
Croatia	9.8	38,144	5495	14.4	937,082	301,487	32.2
Czechia	2.1	4356	80	1.84	1,382,842	13,569	0.9
Estonia	100	104	104	100	296,577	295,940	100
Greece	23.5	1247	238	19.1	731,849	107,402	14.7
Italy	10.6	64,654	4337	6.71	7,955,243	1,072,838	13.5
Latvia	100	1889	1883	100	301,594	296,413	100
Lithuania	100	3718	3701	100	482,167	480,857	100
Poland	64.5	47,856	24,774	51.8	9,205,274	5,146,643	55.9
Romania	100	365,263	364,936	100	3,039,763	3,038,032	100
Slovakia	69.3	2710	1701	62.8	435,313	164,692	37.8

3.4.2 | Impact caused by ASF in domestic pigs

The impact of ASF on domestic pigs in affected countries was assessed by the numbers and size of the outbreaks, variations in the pig census, incidence rates, and number of pigs directly lost either due to ASF or control measures implemented (Table 5). This analysis only considered data officially notified in ADIS. Some countries may have implemented additional measures (e.g. depopulation of all establishments in the surrounding areas), but these data were not available for the current report.

Compared to the previous reporting year (Table 5), the number of outbreaks in domestic pigs increased in Germany, Italy, Lithuania, Poland and Slovakia, while decreasing in Bulgaria, Croatia, Estonia, Greece, Latvia and Romania (see Section 3.1.2 for more details).

Between 2021 and 2024, the number of registered pig establishments with the presence of at least one pig varied considerably among the countries submitting pig population data to EFSA. Overall, there was a 2% decrease in pig establishments in affected Member States from 2023 to 2024, with large variations by country. Romania saw a 0.5% decrease, Latvia 23%, and Lithuania 16%. This decrease of the census was more marked in small establishments (< 100 pigs) in certain countries (Italy, Latvia, Lithuania, Poland), while in other countries, no clear trend could be observed (Romania, Slovakia).

This might be due to small establishments frequently opening and closing, influenced by restrictions, stricter biosecurity requirements or decreasing pig prices. Additionally, the pig population data analysed here originates from census data, and variations within each year and between affected and unaffected areas are not depicted. Countries infected earlier, such as the Baltics, experienced many establishment closures at the beginning of the affected period, which are not reflected here.



FIGURE 19 Evolution of the number of establishments with less than 100 pigs (red) and equal or more than 100 pigs (blue) per country, by year (from 2021 when the collection of pig population data started).

Among the 10 affected Member States where incidence could be calculated, there was a decrease in incidence in Estonia and Romania, and an increase in Greece, Italy, Latvia and Poland. In Greece, Italy and Poland, the incidence increase was more pronounced in establishments with more than 100 pigs, while Romania saw a decrease primarily in smaller establishments (fewer than 100 pigs).

In five Member States (Greece, Italy, Latvia, Poland and Romania), higher incidence rates were observed in larger establishments (> 100 pigs) than in small ones (Table B.2 Appendix). This was also observed in 2023 (EFSA, 2024) and 2022 (EFSA, 2023), and aligns with earlier findings from Estonia (Nurmoja et al., 2020), where herds with over 100 pigs had a higher risk of infection. However, due to the limited number of large establishments in these countries (Figure 19), the incidence rates are highly influenced by a few outbreaks and should be interpreted carefully. For example, in Latvia, with one outbreak notified among the 50 establishments with more than 100 pigs, the incidence was 4.8%, compared to 0.97% in smaller establishments (Appendix B, Table B2). When evaluating the size of ASF outbreaks in Member States, most outbreaks were in establishments with fewer than 100 pigs (78%), few outbreaks were notified in establishments with 1000–10,000 pigs, specifically in Germany (3), Italy (21), Poland (4) and Romania (4). Other Member States only notified outbreaks at establishments with fewer than 1,000 pigs. Only six establishments with more than 10,000 pigs were affected in 2025, located in Italy, Poland in Romania. In the previous year, also six outbreaks of this type were notified in the EU, all of them in Romania.

The numbers of pigs lost due to ASF (number of susceptible pigs in affected establishments as notified in ADIS) depends on the size of infected establishments. In affected Member States that provided data on pig population, the overall percentage of domestic pigs lost due to ASF in the affected NUTS 3 regions was 0.93%. This percentage varied from 0.01% in Lithuania to 3.8% in Romania and 15.7% in Italy, where a significant portion of the pig population in affected NUTS 3 regions was lost due to ASF in 2024 (Table 5). Compared to 2023, losses increased in Italy, Latvia and Poland, while reductions were observed in Greece, Lithuania and Romania. It is important to note that these estimates do not cover indirect losses such as preventive culling or trade restrictions.

TABLE 5 Summary statistics of the domestic pig population (number of establishments and pigs) and the impact of ASF on them, by country for the reporting year. (–) data not reported. NA: Not applicable.

				Establishments					Domestic pigs								
				Restricted zone III (mean % of country) ^b		No. of establishments in full country ^c		No. of outbreaks ^d		Establishment incidence (%) in affected NUTS 3 ^e		No. of pigs in full country ^c		No. of pigs dead or culled due to ASF (losses)		% pigs losses in affected NUTS3 ^f	
Country	First outbreak date ^a	2023	2024	2023	2024	2023	2024	Total from first outbreak	2023	2024	2023	2024	2023	2024	Total from first outbreak	2023	2024
Bulgaria	2018-08-31	2.6 ^x	0 ^y	–	–	3	1	76	–	–	–	–	3	11	217,310	–	–
Croatia	2023-06-26	5.8 ^x	6.3 ^x	–	38,144	1124	6	1130	–	0.3	–	937,082	25,785	277	26,062	–	0.2
Czechia	NA	0	0	4800	4356	0	0	0	0	0	1,393,688	1,382,842	0	0	0	0	0
Estonia	2015-07-21	0.4	0	103	104	2	0	30	4.4	0	274,803	296,577	9398	0	53,824	6.6	0
Germany	2021-07-15	0.1 ^x	0.2 ^x	–	–	1	10 ¹⁴	18	–	–	–	–	11	7556	15,026	–	–
Greece	2020-02-05	1.8 ^x	3.8 ^y	1331	1247	6	5	12	4.6	7.04	743,367	731,849	959	1250	2241	3.9	2.1
Hungary	NA	0	0	–	–	0	0	0	–	–	–	–	0	0	0	0	0
Italy	2022-06-09	0.4 ^x	0.8 ^x	67,137	64,655	16	31	48	0.5	6	8,237,631	7,955,243	20,382	108,024	128,415	8.9	15.7
Latvia	2014-06-26	2.5 ^x	1.5 ^x	2460	1889	8	7	90	0.5	1.1	306,042	301,594	269	595	54,870	0.2	0.3
Lithuania	2014-07-24	8.7 ^x	5.5 ^x	4448	3718	3	8	168	0.3	0.4	460,126	482,167	30	49	77,944	0.08	0.02
Poland	2014-07-23	1.7 ^x	2.3 ^x	51,481	47,856	30	44	576	0.3	0.4	9,357,540	9,205,274	8505	27,399	210,100	0.5	1.09
Romania	2017-07-31	100 ^x	100 ^x	366,971	365,263	736	220	6897	0.2	0.1	2,709,671	3,039,763	184,088	77,062	1,747,369	7.5	3.8
Slovakia	2019-07-24	0.8 ^x	1.1 ^x	3010	2710	0	1	45	0	0.2	496,161	435,313	0	52	31,544	0	0.2
Sweden	NA	0	0	–	–	0	0	0	–	–	0	0	0	0	0	0	0
Total EU	–	–	–	501,741	529,942	1929	333	9090	–	–	23,979,029	24,767,704	249,430	222,275	2,564,705		–

(Continues)

¹⁴One of these outbreaks was in kept wild boar in a wildlife park in the newly affected region in Germany.

TABLE 5 (Continued)

		Establishments									Domestic pigs									
		Restricted zone III (mean % of country) ^b		No. of establishments in full country ^c		No. of outbreaks ^d			Establishment incidence (%) in affected NUTS 3 ^e		No. of pigs in full country ^c					No. of pigs dead or culled due to ASF (losses)			% pigs losses in affected NUTS3 ^f	
Country	First outbreak date ^a	2023	2024	2023	2024	2023	2024	Total from first outbreak	2023	2024	2023	2024	2023	2024	Total from first outbreak	2023	2024			
Non-EU	Albania	2024-12-26	NA	NA	–	–	0	1	1	0	–	–	–	–	0	71	71	–	–	
	Bosnia and Herzegovina	2023-06-22	NA	NA	–	–	1511	33	1544	–	–	–	–	60,281	1985	62,266	–	–		
	Moldova	2020-03-20	NA	NA	–	–	18	13	50	–	–	–	–	7175	1083	40,465	–	–		
	Montenegro	NA	0	0	–	–	0	0	0	0	0	–	–	0	0	0	–	–		
	North Macedonia	2022-01-06	NA	NA	2983	3248	16	4	50	1.2	0.3	122,372	122,341	10,458	55	11,639	22.3	0.2		
	Serbia	2019-07-31	NA	NA	–	–	992	310	1475	–	–	–	–	50,843	7534	61,172	–	–		
	Ukraine	2017-01-07	NA	NA	–	–	38	70	422	–	–	–	–	4749	62,523	273,871	–	–		
Total non EU		–	–	–	2983	3248	2575	431	3542	–	–	122,372	122,341	133,506	73,251	449,484	–	–		

^aFirst outbreak date in domestic pigs notified to ADIS.

^bPercentage of country area under restrictions, i.e. registered as restricted zone III. Super indices indicate whether there is a significant difference (5%) between the two consecutive years. When both years have data available, but no difference has been indicated, it means that the ANOVA test was unreliable due to an essentially perfect fit.

^cNumber of establishments/pigs reported from each country to EFSA through the data collection framework. Establishments not registered as farms or pasture (e.g. abattoir, market, etc.) are not included, nor are establishments with zero pigs registered.

^dOutbreaks notified in ADIS.

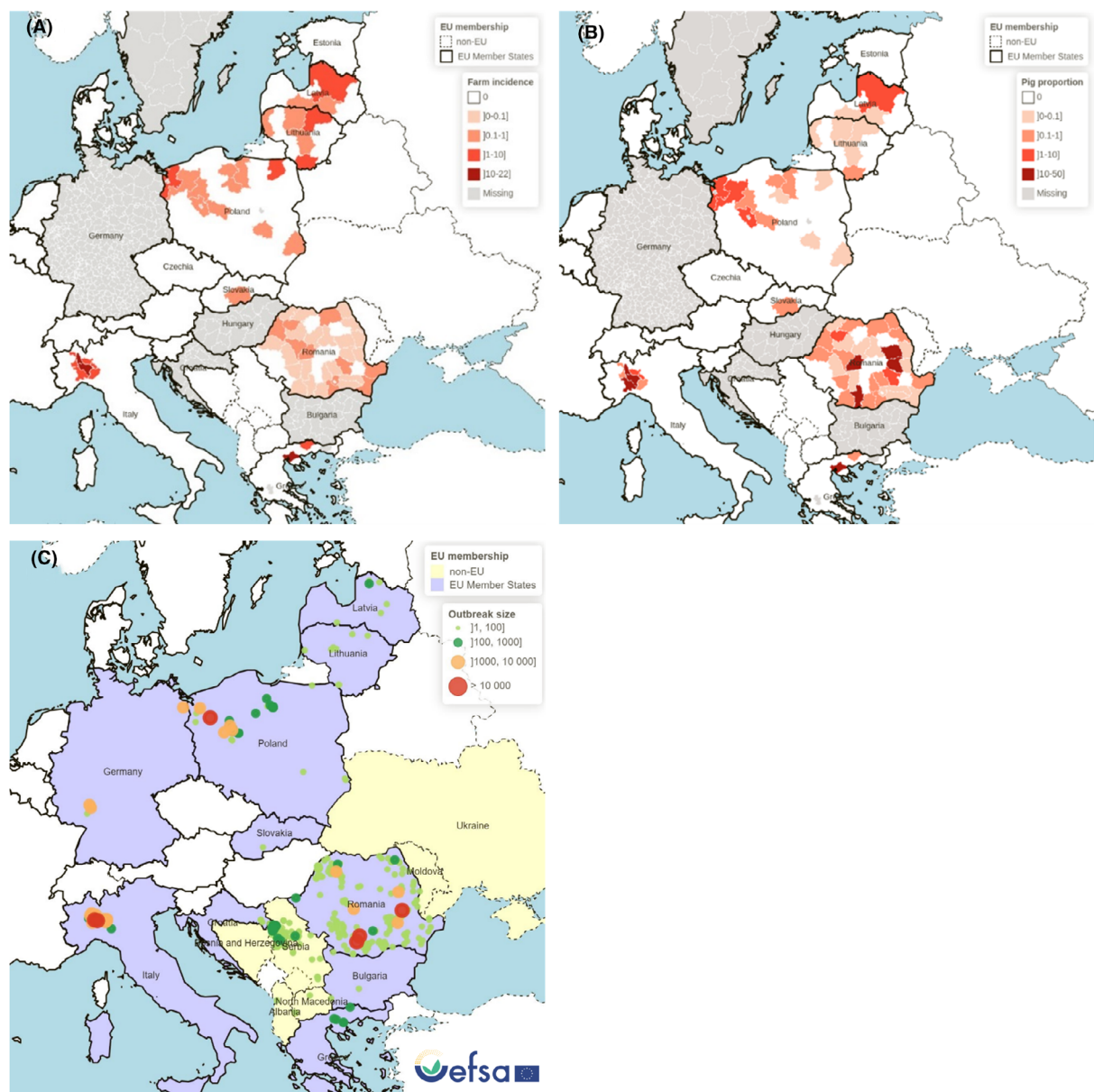
^eOutbreaks notified in ADIS divided by number of establishments in affected NUTS 3.

^fPercentage of losses in affected NUTS 3.

The incidence of ASF on domestic pig establishments at NUTS 3 level (number of affected establishments/total establishments in that region) is displayed spatially in [Figure 20A](#) for all affected countries that reported pig populations data. In 2024, an average establishment incidence of 1.9% was observed in the EU for the NUTS 3 with ASF presence during that year.

The percentage of pigs lost due to ASF per NUTS 3 region (pigs died or culled due to ASF/total pigs in that region) was generally low, averaging 2.9% in affected regions that reported pig population data ([Figure 21B](#)). Outbreaks at large establishments (> 10,000 pigs) highly influenced the pigs lost in these regions ([Figure 21C](#)).

In non-EU countries that submitted pig population data (North Macedonia), the average establishment incidence per NUTS 3 was 0.3% in 2024, while the percentage of pigs lost due to ASF was 0.2%. These percentages are lower than those in 2023 (1.15% incidence and 22% pig losses), indicating an improvement in the ASF situation in domestic pigs in the country.



Spatial distribution of ASF impact in 2024 per NUTS 3 region: A) ASF incidence per establishment, b) Proportion of pigs lost due to ASF, c) ASF outbreaks in domestic pigs by size of establishments affected

Source: ADIS and pig population data submitted to EFSA

Administrative boundaries: ©Eurographics

Cartography: EFSA, 21.02.25

Disclaimer: The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the European Food Safety Authority concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

FIGURE 20 Spatial distribution of ASF impact in 2024 per NUTS 3 region: A) ASF incidence per establishment, B) Proportion of pigs lost due to ASF, C) ASF outbreaks in domestic pigs by size of establishments affected.

3.4.3 | Impact caused by ASF in wild boar

As previously described, the number of ASF outbreaks among wild boar in the EU decreased by 2.2% in 2024, while the restricted zone for wild boar increased by 1.9%.

The total number of reported wild boar losses due to ASF (cumulative dead and killed individuals as notified in ADIS) remained stable as compared to 2023, with only a 0.05% decrease (Table 5). However, there were variations between countries, as shown in Table 6, with increases in Bulgaria, Greece, Latvia and Lithuania, and decreases in Estonia, Czechia, Poland, Romania, Slovakia and Sweden.

In non-EU affected countries, the notified wild boar losses due to ASF in 2024 totalled 752, a 54% increase from the previous reporting year.

The average proportion of losses relative to wild boar population estimated abundance was 0.51%, with a maximum of 3% in Latvia. Higher loss proportions in these countries can be attributed to previous years high wild boar losses and lower population densities caused by ASF.

However, the low overall proportions of wild boar losses to ASF among affected countries are likely underestimated due to (i) under-detection of carcasses (potentially varying between countries) and (ii) additional or increased wild boar harvest as an ASF control measure (i.e. reduction of the population density). While an increased harvest does not directly result from the virus, it is indirectly related to ASF presence and, as such, could be added to ASF-induced mortality.

TABLE 6 Summary statistics on the wild boar population (estimated abundance) and the impact of ASF by country for the year 2024.

	Country	Date of first confirmed case in wild boar	Wild boar abundance ^d average heads/km ²	Restricted zone II + III (mean % of country) ^a		Number notified of wild boar outbreaks ^b		Total from first outbreak	Notified number of losses ^c		Total from first outbreak	% losses	
				2023	2024	2023	2024		2023	2024		2023	2024
EU	Bulgaria	2018-10-23	4.4	100	100	653	717	2823	756	1092	4876	0.1	0.2
	Croatia	2023-07-05	3.4	9.5 ^X	9.7 ^X	13	39	52	12	39	51	0.001	0.02
	Czechia	2017-06-26	1.8	0.5 ^X	1.1 ^Y	56	27	314	56	27	314	0.04	0.02
	Estonia	2014-09-08	0.6	97.6	97.6	53	36	3049	76	43	4326	0.3	0.2
	Germany	2020-09-10	2.2	3.01 ^X	2.3 ^Y	887	966	6407	887	991	6592	0.1	0.1
	Greece	2023-01-20	3.5	1.8 ^X	8.4 ^Y	2	21	23	2	25	27	0.0005	0.006
	Hungary	2018-04-21	1.3	37.3 ^X	34.6 ^X	403	474	9776	444	541	13,621	0.4	0.4
	Italy	2022-01-07	3.0	2.6 ^X	5.7 ^Y	1050	1205	2523	1049	1204	2522	0.1	0.1
	Latvia	2014-06-26	0.7	100 ^X	100 ^X	730	961	7058	1002	1433	9715	2.1	2.9
	Lithuania	2014-01-24	0.7	100 ^X	100 ^X	436	561	5475	580	868	9712	1.2	1.8
	Poland	2014-02-17	1.4	44.3 ^X	44.3 ^X	2686	2311	20,303	4106	3389	30,645	0.9	0.8
	Romania	2018-05-29	0.6	100 ^X	100 ^X	289	186	3754	420	262	163,987	0.3	0.2
	Slovakia	2019-08-08	1.9	55.6 ^X	60 ^Y	535	165	3334	708	233	5473	0.7	0.2
	Sweden	2023-09-06	0.9	0.1 ^X	0 ^X	60	8	68	62	8	70	0.03	0.004
	Total	–	–	–	–	7853	7677	64,959	10,160	10,155	251,931	–	–
Non-EU	Albania	2024-02-10	2.9	NA	NA	0	3	3	0	10	10		0.01
	Bosnia and Herzegovina	2023-07-15		NA	NA	29	38	67	55	65	120		
	Moldova	2020-02-24		NA	NA	6	6	45	21	6	128		
	Montenegro	2024-01-14	3.2	NA	NA	0	1	1	0	2	2		0.005
	North Macedonia	2022-03-21	4.3	NA	NA	47	51	108	131	278	429		0.2
	Serbia	2020-01-03	1.2	NA	NA	213	101	572	228	310	773		0.3
	Ukraine	2017-02-05		NA	NA	9	15	123	43	81	331		
	Total	–	–	–	–	304	215	919	478	752	1793	–	–

^aSuper indices indicate whether there is a significant difference (5%) between the two consecutive years. When both years have data available, but no difference has been indicated, it means that the ANOVA test was unreliable due to an essentially perfect fit.

^bWild boar outbreaks refer to ASF outbreaks in wild boar as notified to the Animal Diseases Information System (ADIS).

^cLosses include the number of wild boar found dead, cases and killed as reported to ADIS.

^dBased on the modelled density of wild boar as published by the ENETWILD Consortium (2022).

Unfortunately, the information available from the Member States does not allow for a quantitative estimate of the scale of surplus mortality. Countries were asked about depopulation measures, which were applied by 9 out of 12 Member States responding to the questionnaire and 1 out of 3 non-EU countries. In four Member States, culling was applied across the entire country, while in two it was applied in restricted areas, the other two in non-restricted areas and one in restricted areas and high-risk areas along the borders.

Differences in surveillance efforts among countries and the estimated sizes of wild boar populations highly influence the estimated wild boar losses. Member States also reported the activities done for the systematic search of carcasses, such as transects, drones or dogs (see Table A3 in Appendix A). The most popular method reported was using trained staff (8/12), followed by using dogs (4/12), and using drones (3/12). Germany, Italy and Poland used the three methods, though not always systematically. In Greece, trained staff and dogs are utilised. In the other countries (Lithuania, Slovakia, Romania and Sweden), trained staff are often hunters, forest personnel and hunting ground managers. Among non-EU countries, only Serbia reported performing systematic searches with trained staff. Only Sweden and Slovakia were the only countries to report concrete data on the estimated effort put into carcass searches.

Temporal trends in the size of wild boar populations (approximated by the hunting bags at national level) among the affected countries are illustrated in Figure 22 at country level. The rebound in wild boar population size in the Baltic States, initiated in 2019, has been confirmed with the latest year data. In Bulgaria, a stabilising trend followed a decline after ASF introduction, while a decreasing trend is observed in Hungary after ASF introduction. These trends are consistent with the overall pattern observed in Europe. In ASF-free areas, the hunting bags continue to increase.

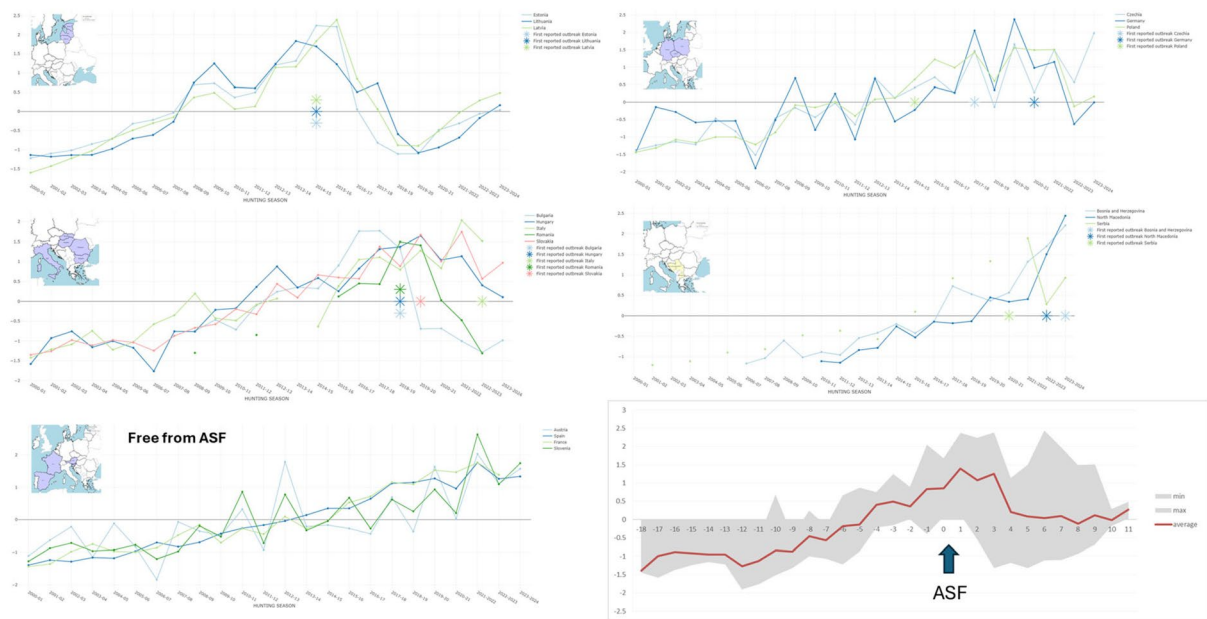


FIGURE 21 Standardised annual hunting bag in European countries, including both ASF-affected and free countries. The last panel standardises all data from affected countries to the year of ASF introduction (year 0). The standardised hunting bag was calculated using the z-score method (subtracting the average of the country over the hunting seasons from each data point and dividing by the standard deviation).

4 | CONCLUSIONS

During 2024, the number of Member States affected by ASF decreased from 14 to 13 as Sweden regained freedom from the disease. Therefore, 2024 was the first year since the introduction of ASF genotype II in the EU in 2014, during which the number of affected Member States has decreased.

In the EU, the number of outbreaks notified in wild boar has remained stable since 2022 (between 7000 and 8000), while in domestic pigs, the number of outbreaks decreased by 83% from 2023 to 2024. The 333 outbreaks notified in domestic pigs in 2024 represent the lowest annual total in the EU since 2017.

In neighbouring non-EU countries, a decreasing trend was observed both in domestic pigs (with a reduction of 83%) and in wild boar (with a reduction of 30%).

Most of the ASF outbreaks notified in the EU during 2024 (97%) were in areas with previous presence of the disease. Twenty-six new NUTS 3 regions were affected (in Germany (12), Italy (8), Poland (5) and Greece (1)), most of them bordering previously affected areas. Only one long-distance translocation event occurred when the virus was introduced in south-western Germany.

In the EU, most of the outbreaks (78%) occurred on establishments with fewer than 100 pigs. Among domestic pigs, 79.4% of ASF outbreaks were detected through passive surveillance based on clinical suspicion, 6.4% were identified through contact tracing from affected establishments, and 14.4% of outbreaks were identified by systematic testing of dead pigs (enhanced passive surveillance). Enhanced passive surveillance led to the detection of 6.5% of outbreaks in

establishments with less than 1000 pigs and 68.4% of outbreaks in establishments with 1000 or more pigs. No outbreaks were detected through active surveillance targeting healthy pigs at slaughter, before movement or randomly selected at establishments.

Overall, 29% of the 23,919 wild boar carcasses found as part of the passive surveillance tested positive for ASFv by PCR, representing 70.4% of the wild boar outbreaks in the EU. In contrast, around 0.4% of the 412,753 hunted wild boar tested positive by PCR, representing 28.4% of the wild boar outbreaks.

Generally, a decreasing trend was observed in the use of serological tests in wild boar, while the number of PCR tests remained stable over time.

Like previous years, the distribution of ASF outbreaks in domestic pigs during 2024 was clearly seasonal, with 51% of the outbreaks notified between July and September. For wild boar, the seasonality was less clear, with a seasonal trend (winter peak) observed only in Hungary, Italy, Poland and Slovakia. This seasonality in wild boar was not synchronised with that in domestic pigs.

Despite the reduction in the number of outbreaks in domestic pigs, the total area under the restricted zones III in the EU remained stable, while the total area under the restricted zones II + III slightly increased in 2024 (+1.9%, +13,979 km²).

5 | RECOMMENDATIONS

Clinical suspicion remains the main method for detecting ASF in domestic pig establishments. Therefore, all countries in Europe are encouraged to continue running awareness campaigns targeting farmers and veterinarians.

For the detection of ASF in domestic pigs, it is advised to focus surveillance efforts on passive surveillance and thereby reduce the efforts dedicated to active surveillance of healthy pigs at slaughter, before movement or randomly selected at pig establishments.

In areas and times considered to be at risk and in restricted zones, the systematic sampling of dead pigs (enhanced passive surveillance) should continue, particularly at establishments with more than 1000 pigs.

For the detection of ASF in wild boar, surveillance efforts should prioritise passive surveillance, including the search and testing of wild boar carcasses, rather than active surveillance (testing hunted wild boar).

Collection of harmonised and complete data, e.g. on laboratory results, host populations (pig and wild boar) and surveillance efforts (e.g. carcass search), is encouraged to ease the assessment of the epidemiological situation at the European level.

Collection of reliable hunting data and timely submission to ENETWILD is highly recommended to be able to monitor the evolution of wild boar populations.

The stimulating cooperation of affected countries with EFSA, including the timely submission of epidemiological data as described in the ASF guidelines, is paramount and should continue in the coming years to ensure the accurate and precise assessment of the epidemiological situation and the formulation of tailored recommendations.

ABBREVIATIONS

ADIS	Animal Disease Information System
ASF	African swine fever
ASFv	African swine fever virus
DCF	Data collection framework
ELISA	Enzyme-linked immunoassay
IB	Immunoblotting test
IPT	Immuno-peroxidase test
PCR	Polymerase chain reaction
WGS	Whole genome sequencing

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APPENDIX A

Countries' responses to the questionnaire

TABLE A.1 Countries and territories' responses to the questions regarding active surveillance activities carried out on domestic pigs.

Country	Test healthy pigs before movement	Test pigs at slaughter	Test healthy pigs randomly on establishments
Czechia	In the whole restricted zones, the competent authority may decide to perform laboratory examination of healthy pigs before movements	NA	NA
Estonia	Pre-movement testing is performed when passive surveillance has not been carried out or the farm does not have high biosecurity level.	NA	The test of healthy pigs randomly in farms is performed in the whole country
Germany	Healthy pigs are tested before movements in the whole restricted zones	Pigs at slaughter are tested in the whole restricted zones	The test of healthy pigs randomly in farms is performed in the whole country
Greece	Healthy pigs are tested before movements in the whole restricted zones	NA	NA
Hungary	Healthy pigs are tested before movements in the whole restricted zones	Pigs at slaughter are tested in the whole restricted zones	NA
Italy	NA	NA	NA
Latvia	NA	NA	NA
Lithuania	NA	Pigs at slaughter are tested in the whole country	NA
Poland	NA	Pigs at slaughter are tested in the whole restricted zones	NA
Romania	NA	NA	NA
Slovakia	Healthy pigs are tested before movements in the whole restricted zones	Pigs at slaughter are tested in the whole restricted zones	The test of healthy pigs randomly in farms is performed in the whole restricted zones
Sweden	NA	NA	NA
Montenegro	NA	NA	NA
North Macedonia	Healthy pigs are tested before movements in the whole restricted zones	Pigs at slaughter are tested in the whole restricted zones	Test of healthy pigs randomly in farms is performed in the whole country
Serbia	Healthy pigs are tested before movements in the whole country	Pigs at slaughter are tested in the whole country	The test of healthy pigs randomly in farms is performed in the whole country

TABLE A.2 Countries and territories' responses to the questions related to wild boar management strategies.

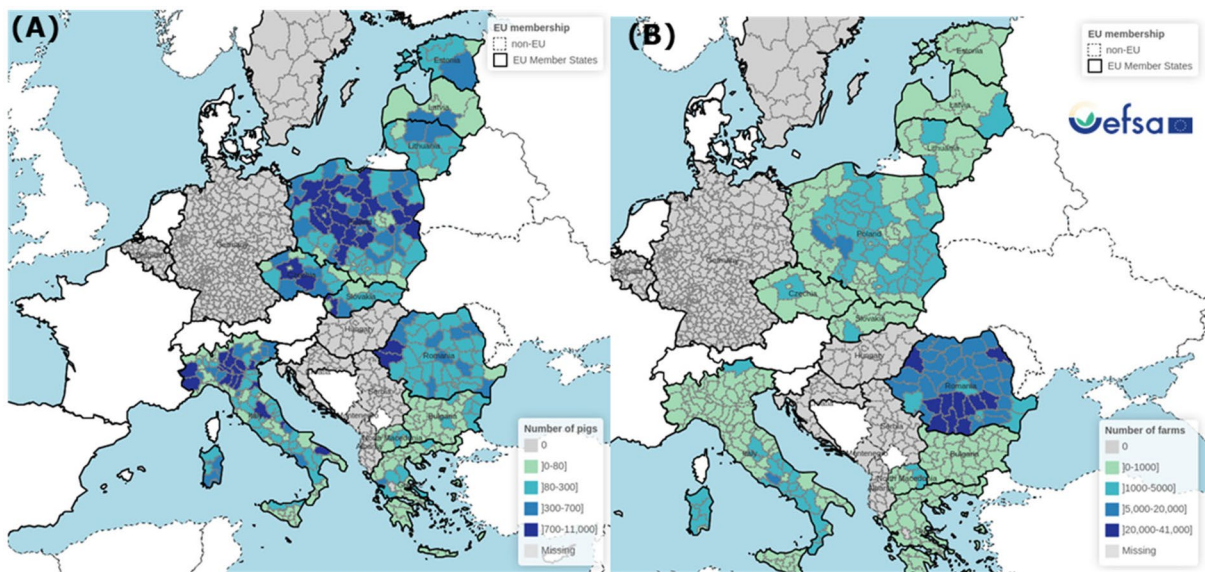
Country	Is wild boar hunting permitted in restricted areas?	Are depopulation measures (surplus culling in addition to regular management plan) in place? Specify the areas
Czechia	Yes, wild boar hunting is permitted in the whole restricted areas	Only hunting is adopted as depopulation measure in the whole restricted zones
Estonia	Yes, wild boar hunting is permitted in the whole restricted zones	Yes, in some cases if ASF PCR-positive wild boar has been detected then hunters will try to hunt all wild boars in that area or from the same group
Germany	Yes, in all EU legislative zones. But in the German legislative core areas within the restricted areas only trapping is allowed after establishment, in some areas stricter measures apply, whereby hunting is allowed but not for consumption, only for removal	Yes, in restricted areas and the high risk zone along the Polish border
Greece	Yes, wild boar hunting is permitted in specific part of the restricted areas	Yes, depopulation measures are applied in the whole country
Hungary	Yes, in part I of restricted zones individual wild boar hunting is allowed	Yes, in the whole country depopulation measures are in place.
Italy	Yes. In Italy, during 2024 some changes in terms of ASF management, legal and regulatory occurred. Based on recommendations by EUVET mission in July 2024, Italy submitted to the European Commission a shared road map for the implementation of the planned measures. At the same time, the commissioner resigned, and the new commissioner structure arranged to reshape the eradication strategy. The ordinance 2/2024 was in force until 2 October 2024, when it was replaced by the ordinance 5/2024, in force until 31 March 2025, that introduces new elements, such as the definition of a Viral Expansion Control Zone (ZCEV in Italian) and the focused management of wild boar population in ASF affected zones. According to the ordinance n.2/2024, collective hunting WB activities in RZII/RZIII are not allowed, whereas WB population control activities are permitted under specific conditions of biosecurity. In RZI hunting activities are allowed for WB population reduction measures. In RZI/RZII/RZIII all hunting activities for other species are allowed, as well as the use of hunting dogs in hunting training activities, provided that they comply with the approved protocol of biosecurity. In all restriction zones, traps are allowed in order to catch and cull WBs. WB hunted carcasses have to be tested for ASF (100% of carcasses from RZII/RZIII and not 100% of carcasses from RZI by the way of derogation). If tested virologically ASF negative, they can be treated (risk-mitigating treatments, annex VII, Regulation UE 2020/687) or can be used for self-consumption. Otherwise, they have to be destroyed. According to the ordinance n. 5/2024, in the ASF affected territories, following the containment of the infected WB population by the strengthening of highways or the construction of additional physical barriers, zones for controlling of viral enlargement (ZCEV) are established close to/around the barriers. In ZCEV, collective hunting and control hunting are not allowed (regardless of the restriction zone). Depopulation measures of WB population can be approved by the commissioner only, who defines timing and ways, based on the available passive surveillance data and the epidemiological evaluation. Therefore, in RZII/RZIII outside ZCEV, collective hunting activities for WB population and for other species are not allowed, as well as the use of hunting dogs in hunting training activities; some WB population control activities are permitted. Finally, in RZI outside ZCEV, collective hunting activities for WB population are not allowed whereas some WB population control activities are permitted. All WB hunted carcasses from ZCEV/RZI/RZII/RZIII have to be tested for ASF. If tested virologically ASF negative, they can be treated (risk-mitigating treatments, annex VII, Regulation UE 2020/687) or can be used for self-consumption. Otherwise they have to be destroyed.	Yes. In Italy, a total of one million of WB is estimated living. In the ASF free national territory, a Plan for WB depopulation requires to depopulate about 600.000 WB in the first year, with an increase of 96% over than the average culling during 2019–2021; target are planned for each region, based on the estimated population. Moreover, in the urban and periurban zones, in the protected areas (regional/national parks), in the regional areas of high pig density and high risk of viral introduction, the objective is to obtain 100% of WB depopulation. The allowed activities are use of traps and hunting low impact techniques, whereas the collective hunting should be performed only in a small rate

TABLE A.3 (Continued)

Country	Use of dogs, drones and/or trained staff
Latvia	None of the three methods for active patrolling search of wild boar carcasses is applied due to the too large, infected territory
Lithuania	Only the trained staff method is used If the positive wild boar is detected, the managers of the affected hunting ground are obligated by the national legislation to actively search for the dead wild boar for 1 month at least once a week, first looking in the resting and feeding places of wild boars and close to the water sources
Poland	All three methods are applied: • The use of trained dogs was limited (used in about 3.5% of actions). It increased the number of wild boars carcasses found. • The use of drones was limited (used in about 1.5% of actions). A larger area was patrolled in a shorter time. • Use of trained staff of State Forests, Polish Hunting Association and Veterinary Inspection was implemented. Efficient search of wild boar carcasses.
Romania	Only the trained staff method is used. 2023 'Pig Law': The managers of the hunting grounds have the obligation to periodically patrol the hunting ground area to detect the carcasses of wild boars, in order to ensure the clearing of the territory. As compensation, the equivalent amount for 12 L of fuel/1000 ha/month are paid for carrying out patrols in order to detect wild boar carcasses
Slovakia	Only the trained staff method is used Hunters search for carcasses within their hunting ground Wild boars are searched at every visit to the area, on average it is about 16–24 h per area/per week, depending on the phase of the epizootic in which the area is located. In the epizootic phase (high mortality) it is usually more
	Only trained staff method is applied Local hunters, familiar with the area, were engaged in organised search for cadavers within the restricted zones. The hunters received biosecurity training before being allowed to enter the restricted areas. The search paths and patrolled areas were registered and reported using GPS on a daily basis. The endeavours were continuously followed, and search efforts were assessed and prioritised in weekly meetings with the authorities to ensure effective and complete area coverage The area searchable by foot, excluding water or built-up areas, was 774 km ² , and we estimated that one person covered on average 0.7 km ² per search day, due to some areas being dense young deciduous forest and areas hard to search on foot due to the landscape. This equals roughly to 1100 man-days
Montenegro	None of the three methods for active patrolling search of wild boar carcasses is applied
North Macedonia	None of the three methods for active patrolling search of wild boar carcasses is applied
Serbia	Only trained staff method is used There are special trained teams of hunters officially named and established on the local and regional level with the responsible leading person as a head of the hunting units. Most valuable as raised awareness, estimation is developing in relation to the scope and the purpose of their engagement

APPENDIX B

Supplementary material



Pig population in 2024: A) Number of pig establishments per NUTS 3 region, B) Number of pigs per NUTS 3 region.

Source: Pig population data submitted to EFSA

Administrative boundaries: ©Eurographics

Cartography: EFSA, 21.02.25

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FIGURE B.1 Pig population in 2024: (A) Number of pig establishments per NUTS 3 region, (B) Number of pigs per NUTS 3 region.

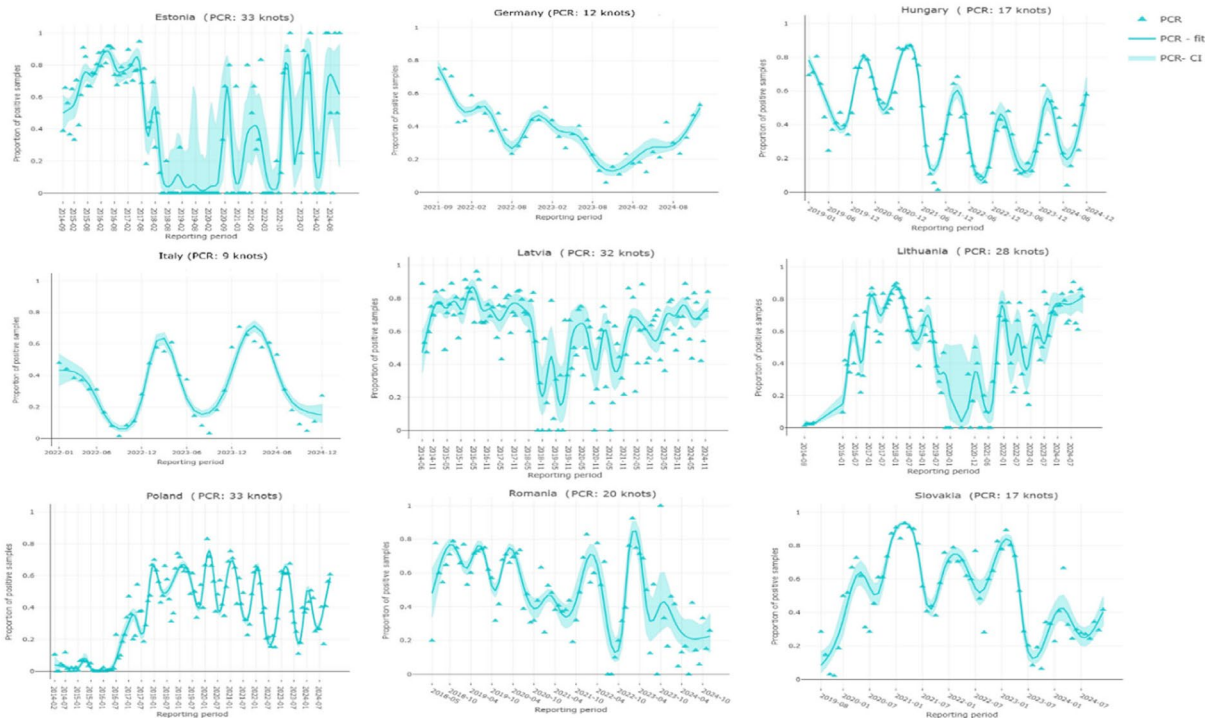


FIGURE B.2 Proportion of ASF positive samples over the tested samples by PCR from wild boar during passive surveillance activities in the ASF-affected countries. Note: Only ASF-affected countries that had reported laboratory results to EFSA for more than three consecutive years were included in the analysis.

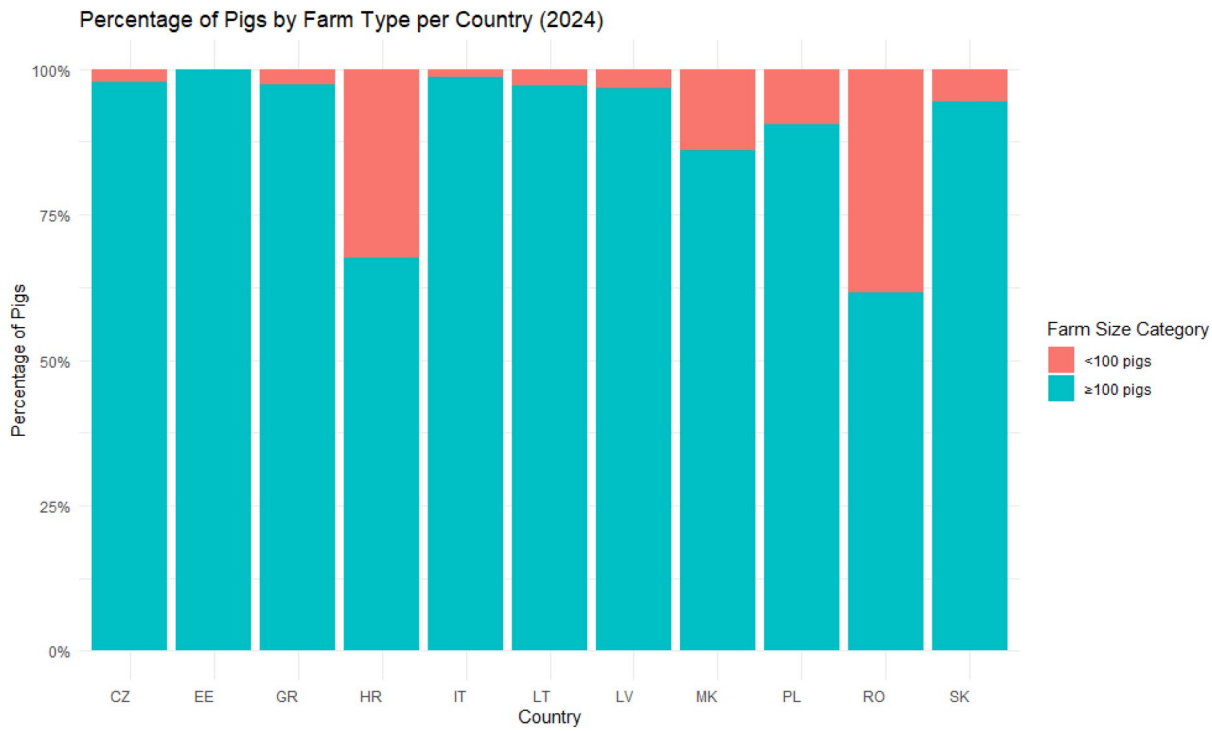


FIGURE B.3 Proportion of the pig population kept in small (< 100) and large (≥ 100) establishments, per country for 2024.

TABLE B.1 Summary statistics for the domestic pig population (number of establishments and pigs) and the impact of ASF on those by country, divided by establishment size (< 100 or ≥ 100) for the year 2024.

				Establishment					Domestic pigs							
		Restricted zone III (mean % of country) ^b		No. of establishments in full country ^c		No. of outbreaks ^d			Establishment incidence (%) in affected NUTS 3e		No. of pigs in full country ^c		No. of pigs dead or culled due to ASF (losses)			
Country	First outbreak date ^a	2023	2024	2023	2024	2023	2024	Total from first outbreak	2023	2024	2023	2024	2023	2024	Total from first outbreak	% losses 2024f
Bulgaria < 100	2018-08-31	2.6 ^x	0 ^y	–	–	3	1	52	–	–	–	–	3	11	911	–
Bulgaria ≥ 100				–	–	0	0	24	–	–	–	–	0	0	216,399	–
Croatia < 100	2023-06-26	5.8 ^x	6.3 ^x	–	37,580	1083	6	1089	–	0.3	–	303,812	15,801	277	16,078	1.3
Croatia ≥ 100				–	564	41	0	41	–	0	–	633,270	9984	0	9984	0
Czechia < 100	NA	0	0	4282	3854	0	0	0	–	–	32,931	30,537	0	0	0	0
Czechia ≥ 100				518	502	0	0	0	–	–	1,360,757	1,352,305	0	0	0	0
Estonia < 100	2015-07-21	0.4 ^x	0 ^x	27	27	0	0	10	0	–	274	335	0	0	54	0
Estonia ≥ 100				76	77	2	0	20	6.25	–	274,529	296,242	9398	0	53,770	0
Germany < 100	2021-07-15	0.1 ^x	0.2 ^x	–	–	1	5	9	–	–	–	–	11	62	114	–
Germany ≥ 100				–	–	0	5	9	–	–	–	–	0	7494	14,912	–
Greece < 100	2020-02-05	1.8 ^x	3.8 ^y	908	854	4	0	5	4	0	22,208	19,359	137	0	169	0
Greece ≥ 100				423	393	2	5	7	6.45	12.2	721,159	712,490	822	1250	2072	2.11
Hungary < 100	NA	0	0	–	–	0	0	0	–	–	–	–	0	0	0	0
Hungary ≥ 100				–	–	0	0	0	–	–	–	–	0	0	0	0
Italy < 100	2022-06-09	0.4 ^x	0.8 ^x	63,132	60,783	8	1	10	0.272	0.4	294,292	279,933	218	18	245	0.9
Italy ≥ 100				4075	3934	8	30	38	7.27	11.2	7,943,339	7,675,310	20,164	108,006	128,170	15.7
Latvia < 100	2014-06-26	2.5 ^x	1.5 ^x	2403	1839	7	6	75	0.441	0.9	12,466	9747	168	45	1031	1.2
Latvia ≥ 100				57	50	1	1	15	4.17	4.8	293,576	291,847	101	550	53,839	0.3
Lithuania < 100	2014-08-06	8.7 ^x	5.5 ^x	4394	3659	3	8	157	0.3	0.406	15,620	14,025	30	49	802	0.7
Lithuania ≥ 100				54	59	0	0	11	0	0	444,506	468,142	0	0	77,142	0
Poland < 100	2014-07-23	1.7 ^x	2.3 ^x	39,452	35,996	18	24	427	0.3	0.33	956,958	878,652	563	864	11,127	0.4
Poland ≥ 100				12,029	11,860	12	20	149	0.5	0.626	8,400,582	8,326,622	7942	26,535	198,973	1.1
Romania < 100	2017-07-31	100 ^x	100 ^x	366,604	364,896	722	209	6686	0.2	0.0673	1,074,447	1,168,694	4747	2083	66,663	0.2
Romania ≥ 100				367	367	14	11	211	4.1	4.25	1,635,224	1,871,069	179,341	74,979	1,680,706	7.1
Slovakia < 100	2019-07-24	0.8 ^x	1.1 ^x	2728	2568	0	1	38		0.226	38,723	24,881	0	52	672	1.5
Slovakia ≥ 100				282	142	0	0	7		0	457,438	410,432	0	0	30,872	0

TABLE B.1 (Continued)

		Establishment								Domestic pigs						
		Restricted zone III (mean % of country) ^b		No. of establishments in full country ^c		No. of outbreaks ^d		Establishment incidence (%) in affected NUTS 3 ^e		No. of pigs in full country ^c		No. of pigs dead or culled due to ASF (losses)				
Country	First outbreak date ^a	2023	2024	2023	2024	2023	2024	Total from first outbreak	2023	2024	2023	2024	2023	2024	Total from first outbreak	% losses 2024 ^f
Sweden < 100	NA	0	0	–	–	0	0	0	–	–	–	–	0	0	0	0
Sweden ≥ 100				–	–	0	0	0	–	–	–	–	0	0	0	0
Total < 100	–	–	–	483,930	512,056	1849	261	8558	–	–	2,447,919	2,729,975	21,678	3461	97,866	–
Total ≥ 100	–	–	–	17,881	17,948	80	72	532	–	–	21,531,110	22,037,729	227,752	218,814	2,466,839	–

^aFirst outbreak date in domestic pigs notified to ADIS.

^bPercentage of country area under restrictions, i.e. registered as restricted zone III. Super indices indicate whether there is a significant difference (5%) between the two consecutive years. When both years have data available, but no difference has been indicated, it means that the ANOVA test was unreliable due to an essentially perfect fit.

^cNumber of establishments/pigs reported from each country to EFSA through the data collection framework. Establishments not registered as farms or pasture (e.g. abattoir, market, etc.) are not included, nor are establishments with zero pigs registered.

^dOutbreaks notified in ADIS.

^eOutbreaks notified in ADIS divided by the number of establishments in affected NUTS 3.

^fPercentage of losses in affected NUTS 3.

APPENDIX C

Country data sets

TABLE C.1 Links to the ASF data sets for 2024 by reporting country. All country data sets are available on the EFSA Knowledge Junction community on Zenodo. The countries that submitted data sets on ASF surveillance in the year 2024 are 12 EU Member States and 0 non-EU country.

Country	Link to the data set
Czechia	https://doi.org/10.5281/zenodo.7821672
Estonia	https://doi.org/10.5281/zenodo.7801572
Germany	https://doi.org/10.5281/zenodo.7821688
Greece	https://doi.org/10.5281/zenodo.11057639
Hungary	https://doi.org/10.5281/zenodo.7821704
Italy	https://doi.org/10.5281/zenodo.7821723
Latvia	https://doi.org/10.5281/zenodo.7821780
Lithuania	https://doi.org/10.5281/zenodo.7821760
Poland	https://doi.org/10.5281/zenodo.7821816
Romania	https://doi.org/10.5281/zenodo.7821853
Slovakia	https://doi.org/10.5281/zenodo.7821894
Sweden	https://doi.org/10.5281/zenodo.11059292

TABLE C.2 Links to the pig population data sets for 2024 by reporting country. All country data sets are available on the EFSA Knowledge Junction community on Zenodo. The countries that submitted data sets on the pig population in 2024 are: 10 EU Member States and 1 non-EU country.

Country	Link to the data set
Croatia	https://doi.org/10.5281/zenodo.15125139
Czechia	https://doi.org/10.5281/zenodo.7821957
Estonia	https://doi.org/10.5281/zenodo.7801606
Greece	https://doi.org/10.5281/zenodo.11059351
Italy	https://doi.org/10.5281/zenodo.7821967
Latvia	https://doi.org/10.5281/zenodo.7822003
Lithuania	https://doi.org/10.5281/zenodo.7821977
Poland	https://doi.org/10.5281/zenodo.7822021
Romania	https://doi.org/10.5281/zenodo.7822034
Slovakia	https://doi.org/10.5281/zenodo.7822054
North Macedonia	https://doi.org/10.5281/zenodo.7822010