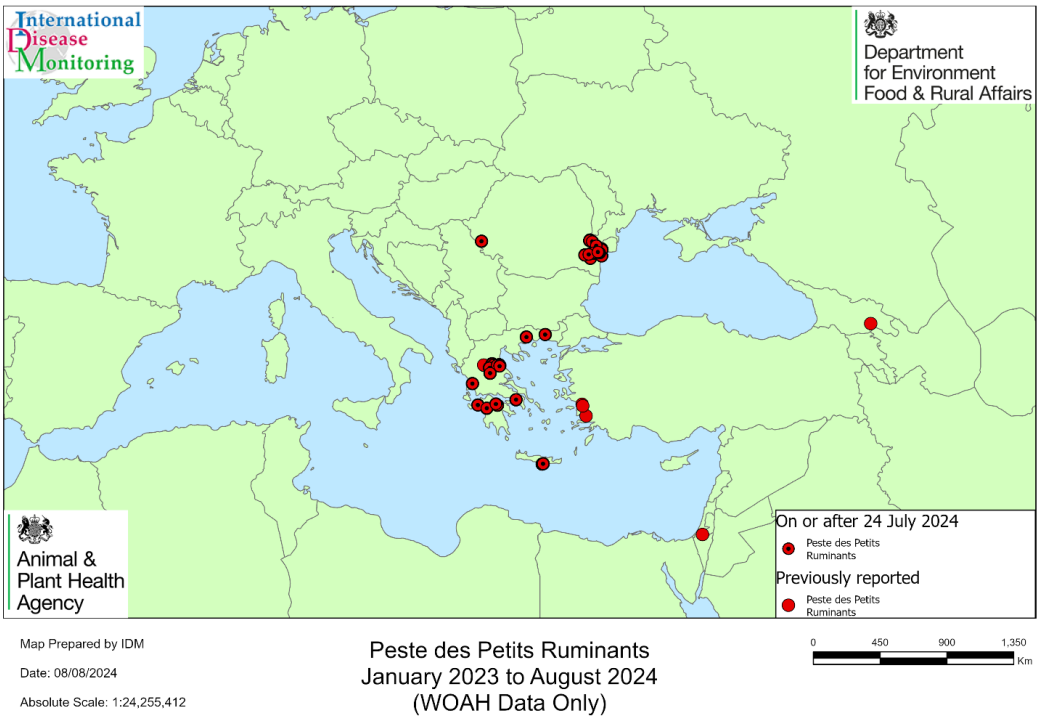
Updated Outbreak Assessment #3

Peste des Petits Ruminants in Greece and Romania

5 August 2024

Disease Report

Peste des Petits Ruminants (PPR) was detected for the first time in Greece in early July 2024 and then a week later in Romania. In our previous outbreak assessment dated 24 July 2024 (Peste des petits ruminants in Greece and the Black Sea Basin (publishing.service.gov.uk)), 13 outbreaks of PPR had been reported in Greece all in the region of Thesally and Central Greece with 6 outbreaks in Romania all on the Black Sea coast in the east of the country. Since then (until 5 August 2024), the number of outbreaks in Greece has increased to 35 with spread further south into Mesino, into Aspropyrgos in the region of Attica near to Athens, and also into the region of the Peloponnese, Western Greece and the Ionian Islands. On 29 July 2024, 2 outbreaks were detected further south-east on the island of Crete. In addition, PPR has spread in the region of Macedonia and Thrace in the north-east of Greece with 2 outbreaks at the end of July near to the border with Bulgaria and Türkiye. In Romania (until 5 August 2024), a further 30 outbreaks of PPR have been reported around Tulcea near the Black Sea coast with 3 further north near Braila on the border with Moldova and 1 more inland in Constanta. On 25 July an outbreak was detected in the west of Romania on the border with Serbia taking the total number of outbreaks in Romania to 46 until 5 August 2024.



Situation Assessment

The first outbreak of PPR was detected in Greece on 8 July 2024 in Kastraki in the region of Thessaly and Central Greece. In our previous outbreak assessment on 24 July 2024 (Peste des petits ruminants in Greece and the Black Sea Basin (publishing.service.gov.uk)) we reported the eastward spread of PPR into Domeniko and Chimadi within Thesally and Central Greece with 13 outbreaks in total. Until 5 August 2024, the total number of outbreaks in Greece has increased to 35. Until 5 August 2024 there were 7 outbreaks in Kastraki, 6 in Domeniko and 10 in Chimadi. Further south but also in Thessaly and Central Greece, 1 outbreak in sheep was detected on 30 July 2024 in Stavros. Since our previous outbreak assessment, PPR has spread further south in mainland Greece with 1 outbreak in Aspropyrgos (Attica) near to Athens on 28 July 2024 and also 6 outbreaks in the south of mainland Greece in the region of the Peloponnese, Western Greece and the Ionian Islands. These include 3 outbreaks in Mesino, 1 in Nemouta, 1 on the west coast at Vartholomio and 1 outbreak in sheep on the west coast at Monostiraki.

Since our previous outbreak assessment on 24 July 2024, PPR has also spread north-east in Greece with two outbreaks in the region of Macedonia and Thrace near to the northern border with Bulgaria. The first at Mega Pisto was detected on 29 July within 15 km of the border with Bulgaria and approximately 50 km west of the border with Türkiye. The second at Kalampaki was detected on 31 July 2024 and is some 40 km from the border with Bulgaria. The island of Crete is located some 100 km to the south-east of the Greek mainland. On 29 July 2024, PPR was detected for the first time in Crete with outbreaks at two farms located within 3 km of each other near the south coast, one at Ethia and the other at Paranimfi.

The first outbreak of PPR in Romania was detected on 15 July 2024 in a sheep fattening farm in Tulcea near the Black Sea coast and in our previous outbreak assessment on 24 July 2024 we reported another five outbreaks all in the same region taking the total to 6. However, since then there have been another 40 outbreaks taking to the total to 5 August 2024 to 46. Of these 46 outbreaks, 45 are in the same area around the Black Sea while 1 with 959 cases on a sheep farm in Clopodia and detected on 25 July 2024 is in the west of Romania within 10 km of the border with Serbia. Of the 45 in the Black Sea area, 38 are around Baia and Stejaru (Tulcea) near where the first 6 outbreaks were detected while 3 are further south-west in Topalu (Constanta) and 1 is further north with 3 clinical cases in a sheep and goat mixed herd in Balananca (Tulcea) detected on 1 August 2024. The other 3 outbreaks in the Black Sea area are further north in Smardan (Tulcea) and within 20 km of the border with Moldova.

Media reports indicate that tracing has revealed that the infected animals in Greece originated from Romania (although we have no information on its origin in Romania), with further spread caused by breeding animals subsequently being distributed to farms across various Greek regions, leading to widespread infection (Anon 2024). One investigation focussed on one particular trader dispatching animals infected on his premises to other

regions of Greece with 76 consignments traced. Some 13,000 sheep and goats have been preventively culled in Greece out of a total population of 15 million and 213,000 animals have been culled in Romania from a total population of 12 million (Anon 2024).

The EU Commission have provided formal confirmation that Greece and Romania are complying in full with the requirements in EU Regulation 687/2020, which prohibits export of meat from the restriction zones (RZs) and requires meat originating from a RZ to be marked in such a way that it can easily be identified as a product that is prohibited from leaving the country. Additionally, the EU Commission have officially confirmed that Greece and Romania are implementing further restricted zones, which is above the requirements in EU Regulation 687/2020. Greece has suspended all movements of sheep and goats within Greece. In addition, there is a ban on exports of sheep and goats to non-EU countries and a ban on imports of sheep and goats from Romania. Romania requires consignments of live sheep and goats destined for EU intra-community trade to be notified to the Romanian competent authority. Certification will only be issued if the importing country approves the import and a proportion of the animals are pre-export tested for PPR. Meat from an RZ can only be used and distributed throughout the country of origin providing it fulfils conditions in EU Regulation 687/2020 including that it is marked indicating it is not intended for another Member State.

The UK Office for SPS Trade Assurance has temporarily suspended the import of live sheep and goats, germplasm, raw milk and raw milk products, as well as untreated hides, skins, wool and hair from sheep and goats from both Greece and Romania. Further restrictions on other commercially imported commodities and personal imports of products from sheep and goats are being explored.

Tissue tropism in sheep and goats experimentally infected with PPR shows the lymph nodes, lymphoid tissue and digestive tract organs are the predominant sites of PPR virus replication (Truong and others 2014) with up to $10^{5.5}$ RNA copies per gram of tissue (reticulum) from sheep and up to $10^{5.3}$ RNA copies per gram of tissue (omasum) in goats. There is a general lack of published empirical evidence about PPR survival in raw meat and milk (Clarke and others, 2018) and the EFSA scientific opinion (2015) considers that the virus may survive in fresh and chilled meat for a few days. Experts consider that it is possible that PPR virus can be spread through movement of animal products including fresh meat, offal, raw milk and animal by-products (EFSA 2022). Thus it is assumed here that products of animal origin and meat may present a small risk. The virus is considered sensitive to heat and ultraviolet light and it does not survive in the environment except in shaded areas (EFSA 2015). PPR transmission is usually via contact with infected animals, or with their fresh secretions or faeces. Transport of infected livestock is the main risk factor for PPR (EFSA 2015) although experts consider that it is possible that semen, oocytes as well as embryos obtained from PPR virus-infected animals can contain infectious pathogen (EFSA 2022) albeit with large uncertainty. No livestock or germinal products are entering Great Britain from the affected areas. However, given the rapid increase in the number of outbreaks, the large geographical jumps both in Greece and Romania, and the likelihood of more outbreaks (based on current trajectory), together with

the possibility of illegal entry of products of animal origin, the risk level for Great Britan is now considered to have increased from negligible to **very low**.

Conclusion

Peste des petits ruminants (PPR) is spreading in both Greece and Romania.

In Greece, PPR has spread south with 5 outbreaks in Mesino and also 1 near to Athens and on 29 July 2024 there were 2 outbreaks on the island of Crete. PPR has also spread north-east with 2 outbreaks near to the border with Bulgaria. There are now 25 outbreaks in Thessaly and Central Greece taking the total in Greece to 35 across 11 of the 13 regions.

In Romania, there are now 45 outbreaks in the Black Sea area including 3 further north near the border with Moldova. In addition, there is 1 outbreak in the west of Romania near the border with Serbia.

Transport of live infected animals is the main risk factor for spread of PPR and it is assumed here that germinal products and products of animal origin including meat may present a small risk. The risk of PPR introduction to Great Britain as a result of these outbreaks in Romania and Greece is now considered to have increased from negligible to **very low**. Although there are no data to suggest any imports of live animals and germinal products to Great Britain, the rapid spread in Greece and Romania in the last week of July 2024 together with the possibility of illegal imports of products of animal origin is consistent with a non-negligible risk.

We will continue to monitor the situation, as this is an important exotic disease which will be a concern for the European Union in terms of its ability to spread and its impact on livestock and the economy.

Authors

Megan Arter-Hazzard

Dr Paul Gale

Dr Sonny Bacigalupo

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