



ASF mission of the EU Veterinary Emergency Team (EUVET) to Greece (Region of Central Macedonia, Serres Veterinary Regional Unit)

(6 – 9 February 2023)

The TORs

1. The experts should provide scientific, technical, managerial and practical assistance on the spot on the refinement of the most suitable control and eradication measures for African swine fever (ASF) under local conditions, especially as regards preparedness, surveillance, coordination efforts and eradication in wild boar, and preparedness and surveillance in domestic pigs.
 2. The experts should report exclusively to the Commission services and the authorities of Greece. Continuous contact should be guaranteed between the team, the Commission services and authorities of Greece.
 3. The experts should provide a written report with conclusions and recommendations aimed to the competent authority. A report to the Commission and the Member States in the framework of the Standing Committee on Plant, Animal, Food and Feed should be delivered.
 4. The experts shall operate under the provisions laid down in Commission Decision 2007/142/EC and in particular based on the standard rules of procedure for groups of experts.
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A brief history of the epidemiology of ASF in the area

- Greece had a case in domestic pigs in the same area on 5 February 2020
- From that case all the Northern part of Greece was defined as PART I
- Active and passive surveillance in both domestic pigs and wild boar have been enhanced;
- Biosecurity in domestic pig farms have been checked and –possibly- re-organised;



Active and passive surveillance in both domestic pigs and wild boars

Active: random sample in healthy animals (hunted for wild boar);

- number of samples defined by N. farms, N. pigs and laboratory capacity

Passive: dead animals and animal showing ASF clinical signs



Active surveillance in domestic pigs since 2019

In about 730.000 individuals

<i>Year</i>	<i>No. of tested samples</i>	<i>Positive results</i>			
		<i>No. of positive samples</i>	<i>Sample Type</i>	<i>Antigen Test Results</i>	<i>Results of antibody tests</i>
2019	137	0	Blood	0	0
2020	3042	0	Blood	0	0
2021	492	0	Blood	0	0
2022	1602	0	Blood	0	0

Domestic pigs: passive surveillance since 2008 (730.000 individuals)

<i>Year</i>	<i>No of suspected cases reported</i>	<i>No of samples tested for ASFV</i>	<i>Results</i>	<i>Differential diagnosis</i>
2018	0	0	-	-
2019	25	25	Negative	CSF, Rubella, PRRS, Salmonellosis
2020	36	36	13 Positive 23 Negative	CSF, Rubella, PRRS, Salmonellosis
2021	8	8	Negative	CSF, Rubella, PRRS, Salmonellosis
2022	11	11	Negative	CSF, Rubella, PRRS, Salmonellosis

Active and passive surveillance in wild boar

Year	Category*	No. of samples			
			No. of positive samples	Antigen Test results	Antibody test results
2018	Found dead	8	0	0	0
	Road Accident	-	0	0	0
	Hunted	-	0	0	0
2019	Found dead	11	0	0	0
	Road Accident	0	0	0	0
	Hunted	19	0	0	0
2020	Found dead	16	0	0	0
	Road Accident	2	0	0	0
	Hunted	83	0	0	0
2021	Found dead	6	0	0	0
	Road Accident	2	0	0	0
	Hunted	182	0	0	0
2022	Found dead	12	0	0	0
	Road Accident	4	0	0	0
	Hunted	1068	0	0	0

Wild boar management (10% decrease each year)

The Country is divided in reference grids (10x10 km) depending on the density of wild boars and other factors as the ecology of the species, its population status, its geographical distribution, the extent and quality of its habitat and the epidemiological data for the ASF.

In each grid, specific targets for selective hunting of female wild boars and the rest of other wild boars are set on a yearly basis



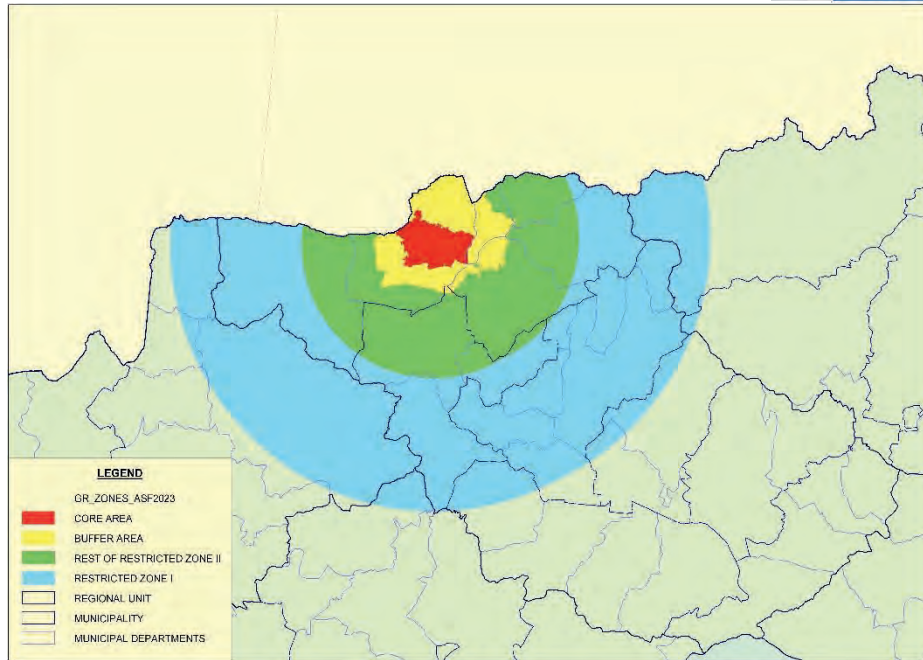


The actual epidemic

The virus was found in two dead boars (as usual) in the Serres province (Veterinary Regional Unit) on the border with Bulgaria, just west of the motorway linking Greece with Bulgaria.

20 January 2023

25 January 2023



20 km + 20 Km
From the location where
the first wild boar has
been found.

Ban of hunting activity (Core area, Buffer area)
Passive surveillance (active search of dead wild boars, location, Information to Local Disease Control Center, Sanitary Burial, Biosecurity measures)

Domestic pigs

All pig farms in a ratio of 20 km around the outbreak were checked as regards:

- ✓ Census
- ✓ Clinical examination of pigs
- ✓ Biosecurity measures
- ✓ Passive surveillance



Critical points noted during the mission

- Surveillance.

The team (also as a result of the visit to two farms) had the perception that the local veterinary services **do not have full control over mortality events in domestic pigs**; although there is a system of carcass disposal, apparently several farmers prefer to bury carcasses on their land. This could obscure the presence of the virus; meanwhile, the negativity resulting from active surveillance could generate a false security that could further delay the discovery of the virus.



Critical points noted during the mission

- **Carcass search/finding in the mountainous area:** the landscape of the area between Greece and Bulgaria (even as far as northern Macedonia) is certainly admirable from the point of view of nature and wilderness; the same landscape, however, makes a constant and capillary search for carcasses impracticable; the vastness of the area, its slope and the absence of roads make the true location of the virus uncertain, and the team believes that **the entire area west of the motorway is at very high risk of infection if not already infected.**



Critical points noted during the mission

- **Biosecurity.** The team believes that a **minimum level of biosecurity** has been achieved in the farms defined as Systematic (commercial), but that there are still situations where biosecurity is completely absent. The risk posed by these farms to the entire pig sector in this part of Greece needs to be well assessed by the competent authorities. If necessary, these farms would be forced to close down or change the species they breed.



Recommendations

Training

The team suggests to request an EC Sustained Training Mission for 1-1.5 days to be held in Serres tailored for the local vets, foresters and hunters; the main topic to be presented might be: ASF epidemiology; ASF new legislation; ASF management of outbreak in kept porcine animals and case in wild porcine animals;

Collaboration

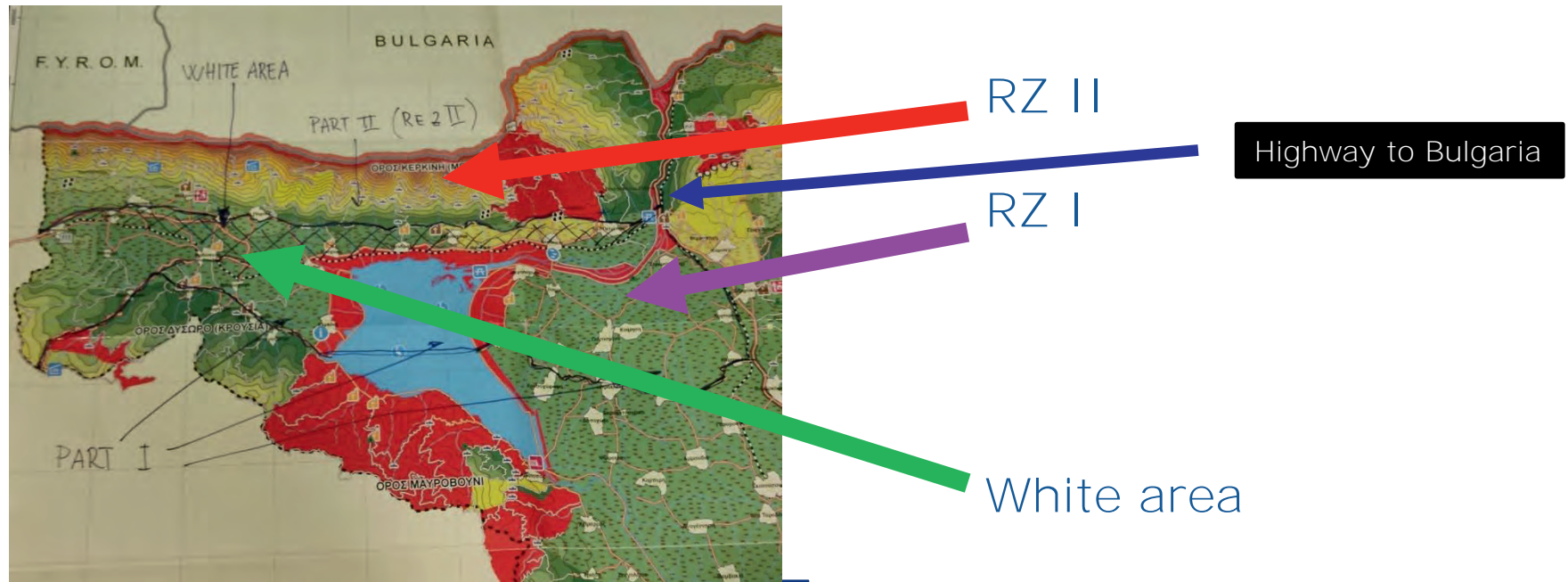
Close collaboration with the Bulgarian authorities responsible for ASF is of paramount importance; this collaboration must be carried out both at central and local level; sharing of data and information regarding activities that could influence the cross-border spread of the virus must be communicated in advance and mutually agreed;

Wild boar and ASF management strategy

At present the **exact location** and the number of cases of ASF in wild boar is **not yet defined** however the proposed strategy assumes that the **highway to Bulgaria is not yet crossed** by the virus which geographical distribution would be then limited East to the motor way. Considering the habitat continuity and its high suitability for the wild boar, the **virus could be almost everywhere** -undetected- in any part of the mountain chain west to the motor way till North Macedonia.

Hence the entire area delimited North by the border with Bulgaria, East by the border with North Macedonia, West by the motorway to Bulgaria and South by the flat land is the area that the team proposes as Restricted Zone II (approx. 600 km²);

The restricted Zone I is then drawn at a distance ranging from 8 to 15 km to the south border of the RZ II (approx. a total of 500 km²)



Laid between the two zones, but belonging to the **Restricted Zone I** the team proposes a **White Zone** (borders defined by the railway the road going to West)

The **white zone** -already inhabited by a **limited number of wild boar**- should be managed obtaining the **quasi-extinction** of the wild boar population hence emptying the area and preventing the further spread of the virus into the south direction.

The direct management of the **wild boar population in RZ II (Mountains)** will be **postponed** to the next hunting season (15 September 2023) when the epidemiological situation will be more clear.

Applying this strategy the present hunting season will not be disrupted (ending at 28 February) and the "**Hunting Cruises**" (local definition of the hunting teams) that have the task to control the wild boar abundance will focus in the **white area** with the task to eradicate -in the zone- the wild boar.



RZ II

RZ i

White area

Wild boars

Surveillance in RZ I and RZ II and in free areas:

- a. As part of active surveillance for ASF, the virus should be tested in WBs hunted in RZ I and hunted or culled in RZ II.
- b. All WB hunted/killed in the restricted areas should be tested and stored and be destined for local consumption once tested negative for ASF, in line with provisions of chapter V of Commission Implementing Regulation (EU) 2021/605
- c. No active surveillance is recommended in ASF-free areas.

Passive surveillance in RZ II, RZ I and the whole country.

- a. Passive surveillance is the most sensitive strategy for detecting the virus. To ensure the effectiveness of passive surveillance and considering the number of wild boar present throughout the country, at least 600 carcasses should be found/reported to the competent authorities annually. This number represents 1% of the entire estimated wild boar population; wild boar that have died as a result of road accidents should also be sampled, although their sampling is less sensitive to the probability of detecting ASF.
- b. The reporting of any dead boar (ANY) to the competent authorities should be facilitated and made very simple (e-mail, free phone line).



Domestic pigs

- a. The team proposes to **drastically reduce** (if not stop) **active surveillance** on domestic pigs and switch to passive surveillance. Surveillance should only focus on sick and dead animals.
- b. Passive surveillance is based on the reporting of suspected cases (sick and dead animals), so the veterinary service must keep a close eye on the entire **chain of disposal of dead animals** (see below);
- c. Throughout the country the veterinary service must be informed of every **dead pig, where and how it will be disposed of**.
- d. In restricted areas, every dead adult animal (>1 year old) must be tested for ASF; in addition to dead adults, two dead animals per week between 60 days and 1 year old or 2 individuals under 60 days old must be sampled and tested for ASF on each farm.
- e. The **burial of dead animals without the permission of the Veterinary Service** should be **forbidden**. However, the dead animal management system should be revised to simplify the link between owners and the veterinary service.
- f. In restricted zones, the **on-farm census must be verified** (by any means, from visits to telephone calls) once a month and the database must be updated;
- g. In restricted zones, **free-range and backyard holdings with poor biosecurity** pose a high risk for the introduction of ASF in domestic pigs. A compensation system could be developed for backyard and free-range farms with a low level of biosecurity, in order to breed livestock belonging to a different species and thus reduce the risk of ASF to zero.
- h. Improving biosecurity on pig farms.



ASF diagnostic capacity

As the number of suspected and actual cases of ASF in pigs is expected to increase in addition to the number of hunted/killed wild boars, the team suggests considering capacity building in the Serres/Salonika laboratories to facilitate sample analysis and reduce turnaround time; however, the NRL will maintain its central role and will confirm any new cases or doubtful results.



Thank you for your attention!

The working atmosphere during the whole mission was very good.

The colleagues from Greece gave all their support and assistance to facilitate a fruitful mission.

The EUVET rapporteurs wish to thank all colleagues for their support and help given during the whole remote mission.