Mission of the Community Veterinary Emergency Team (CVET) to Romania

(6-8 June 2018)
Objective

• **Reason of the mission: occurrence** of ASF in the Noroieni Hunting Ground (Satu Mare county)

• **ToR: provide assistance** to the scientific, technical, managerial and practical on-the-spot assistance on the refinement of the most suitable control and eradication measures for African Swine Fever (ASF) under local conditions, especially **as regards wildlife management and epidemiological investigations**.

• **Expert: Vittorio Guberti (ITA), Petr Satran (CZ)**
Background

Epidemiological evaluation:

• A dead wild boar was found in the Noroieni Hunting ground on 24th May, the animal was sampled and tested positive in LSVSA Satu Mare and finally confirmed ASF positive on 29th May by the NRL.
• The source of virus introduction is not clear and still under investigation;
• The whole area was already under restriction due to a domestic pig outbreaks (13th March 2018, non professional holding); restrictions should have lifted on 30th June.
Domestic pig outbreaks
Protection zone
Surveillance zone
Wild boar case
Hunting grounds borders
Background

- The dead wild boar was found by chance in the Noroieni Hunting in proximity of the Hunting Lodge;
- The hunting ground is managed by Romsilva, the state enterprise that manages state forests and related activities including hunting.
- Samples were taken by an authorised Veterinarian;
- The carcass was incinerated after sampling;
- The positive animal was a female of about 1 year of age; the carcass was fresh;
Wild boar population

At the date of 1\textsuperscript{st} March, in the whole Satu Mare county 2502 wild boars were estimated (0.56/km\textsuperscript{2}); 35 in the infected hunting ground (0.54/km\textsuperscript{2}); At present the local wild boar population size is at least double (post reproductive period).

Wild boar population estimates are obtain through traditional, unstandardized methods aimed in maintaining an optimal wild boar density determined for each Hunting ground by central authorities.

A limited time series of the wild boar estimates hardly matches the natural wild boar population dynamic;
Surveillance

In the whole surveillance zone (set after the domestic outbreak) including the wild boar infected hunting ground

PASSIVE SURVEILLANCE (11.01 – 21.05)
41 suspected cases in domestic pigs (all negative)
3 dead wild boars (all negative)

ACTIVE SURVEILLANCE (25.02 – 31.05)
1171 domestic pigs (all negative)
304 wild boars (all negative)
Epidemiological hypotheses

The CVET carried out the mission considering three main epidemiological hypotheses

A) Focal introduction

B) Undetected - local - ASF persistence in back yard and/or wild boar following the last outbreak detection

C) Epidemic wave in wild boar from infected areas
Considering:

The recent ASF primary outbreaks were determined by multiple introductions of the virus via products from Ukraine (11th January, 13th March 2018) ruling out the local circulation of the virus;

The epidemiological situation in UA, followed by detection of ASF in wild boar in Hungary;

The presence of the TURU River Natural Preserve that connects three countries (RO, HU, UA) in continuity with the Hungarian Szatimaru-Bereg protected area;

The very dense vegetation cover and the presence of several water bodies, that may prevent the detection of wild boar carcasses;

The prohibition of many human activities (hunting included);

The constant patrolling of Border Police.
The river is the connecting point among UA, HU, RO.
The landscape is dominated by wetlands, forests and natural grassland.
Borders of the protected area
Border post Road UA-RO
2018 outbreaks
Infected Hunting ground
The Romanian side

8 km
ACCES INTERZIS
PESTĂ PORCINĂ
AFRICANĂ
• The virus could be present – undetected – in the local wild boar population during the past months in the natural area;

• The virus in wild boar has been detected now, since it has moved south, reaching managed hunting grounds (ASF moves in wild boar aprox. 2.5 km/month)

• In any case, the detection in Wild boar results in an increased environmental load of the virus and thus in an increased risk for the domestic pig population;
Conclusion

The area, that likely includes HU and UA, due the habitat characteristics (very dense vegetation, swamps, reeds etc.) makes the early detection of the virus rather difficult; the local detection of ASF could be slightly delayed until the virus reaches more anthropic areas and where passive surveillance reveals its presence or in domestic pigs or in wild boars;

Worth to underline the continuity with the Szatmar-Bereg protected area in Hungary
RECOMMENDATION

To carry out an immediate ASF addressed management of the wild sub-boar population in the above, defined area.
Recommendations: hunting strategy

The HUNTING strategy needs to be tailored on the geographical distribution of the virus.

The geographical distribution of the virus can be defined by passive surveillance only.
Recommendations: hunting

At present hunting and feeding of any game species should be forbidden

Based on the data obtained by passive surveillance (expected timing end of August) three zone should be identified:

1. **CORE ZONE**: shaped connecting the points where infected wild boar carcasses will be detected (end of August);
2. **BUFFER ZONE**: around the core zone a further buffer of at least 5 km has to be created; it is envisaged to have a Core + buffer zones of no less than 250 Km²;
3. **LEFT ZONE**: representing the zone under restriction outside the core + buffer zones;
Recommendations: passive surveillance

- The identified wild boar population inhabits 5 hunting grounds (278 km$^2$; 93 estimated wild boars); probably the number of wild boar is highly underestimate;

- In this wild boar population **passive surveillance** has to be permanently enforced; each found dead wild boar has to be reported to the local Veterinary Service;
**Recommendations: passive surveillance**

Passive surveillance has to be enforced also outside the geographical area inhabited by the ASF infected wild boar sub-population, and in particular in any forest area SOUTH to the road N. 19, EAST to the road E 81 and ALONG Somes river in the direction of the town of Satu Mare;

19 hunting grounds surrounding the 5 “directly involved” ones should be included;

Due to the possible epidemiological link with the Hungarian ASF situation, passive surveillance has to be enforced in an harmonised way between the two countries.
Recommendations: passive surveillance

• Involved hunters must be informed about procedures to reduce the possible further spread of the virus in the environment and outside the infected area;

• Carcasses secured in plastic bags and transported to the nearest road and then to the render plant by authorized vehicles;

• Samples should be taken at the rendering plant by an authorized veterinarian;
Recommendations

Domestic pigs in the restricted area

The whole epidemiological situation is complicated by the presence of a huge back yard sector with more than 1000 holdings and 5000 pigs

1. **Census** of holdings and pigs in the restricted area;

2. **Passive surveillance** implemented: each dead pig (adult, post weaned) tested irrespectively of the of the mortality causes;

2. **Biosecurity** measures implemented in the domestic pig farms have to be reinforced and verified regularly directly by the Competent Veterinary Authorities;
Recommendations Hunting in neighbouring free areas

Once passive surveillance has defined the geographical distribution of the virus

1. **Intensive wild boar hunting** has to be facilitated and implemented;

2. **Any type of hunting** (single hunting, driven hunting, night hunting etc.) could be authorised;
   - The goal is to **reduce as much as possible** the size and the density of the wild boar population
   - **Adult female class** should be primarily targeted.
Recommendations

AWARENESS

- **Hunters**: dead wild boar reporting
- **Farmers**: suspect cases reporting
- **General public**: dead wild boar, presence of the virus in the forest and in recreational areas
- **Private veterinarians**: biosecurity, case definition, reporting
- **Official veterinarians**: different team for wild boar and domestic pigs in case of outbreaks
Final considerations

Up to now any proposed strategy could be jeopardized due to the absence of strict legal bases for hunting ban, safe disposal of wild boar carcasses, rendering, targeted hunting and developing biosecurity measures in hunting grounds;
Thank you for your attention!

The CVET team wish to thank all colleagues from Romania for their support and help given.

The working atmosphere during the mission was very good.

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