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Hungarian experience with African swine fever in wild boar

21 February 2019



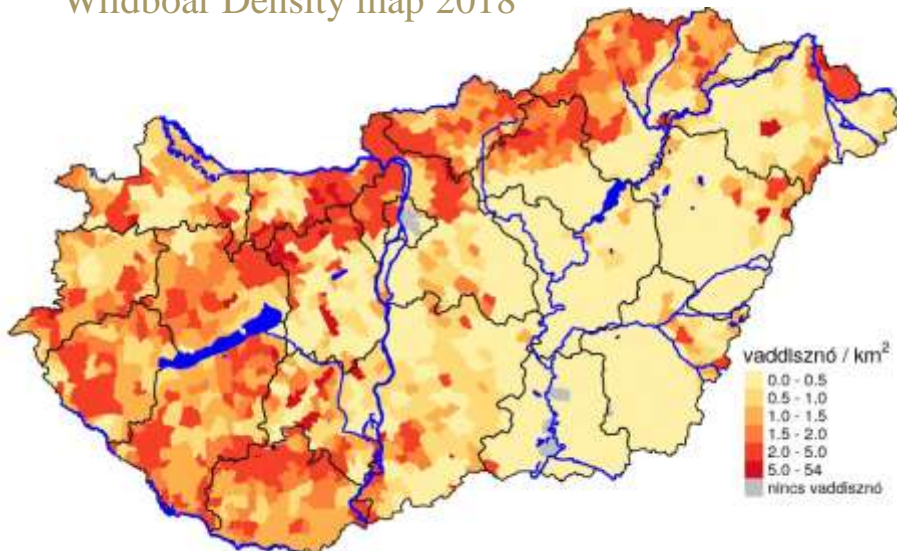
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Wildboar Density map 2018



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How it started

- On 19 April 2018 a dead wild boar was found near Gyöngyös, Heves county
- On 21 April 2018 , NEBIH confirmed ASF via PCR
- Virus sequencing gave the result that the virus is the same which was found in Georgia
- Based on the result of the epidemiological investigation it is hypothesized, that the source of the infection was waste from pork products illegally imported by workers from Ukraine.

Heves was not in our high risk area....





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Overview of ASF cases in Hungary in wild boar

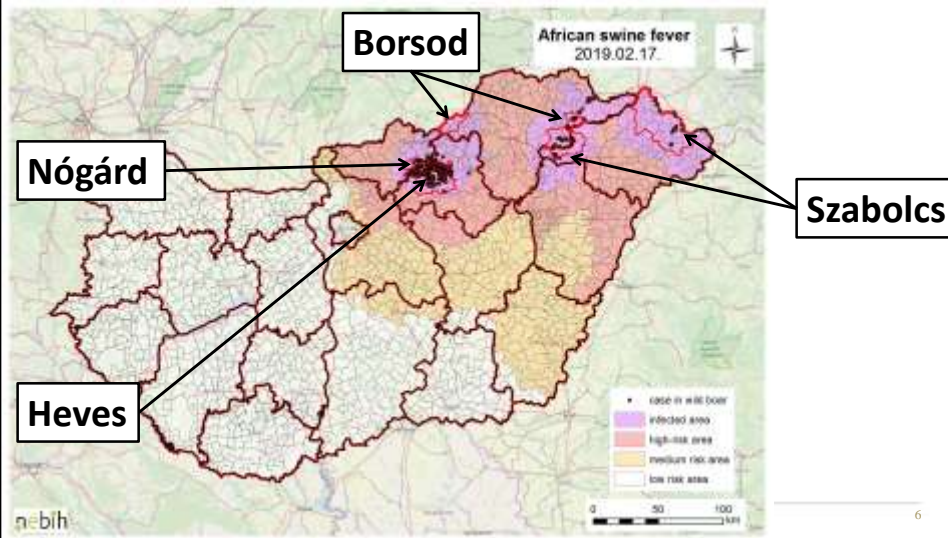
County (in order of infection)	Frequency (number)	Percentage (%)
Heves	392	74.4
Szabolcs-Szatmár- Bereg	26	4.9
Borsod-Abaúj-Zemplén	76	14.4
Nógrád	33	6.3
TOTAL	527	100

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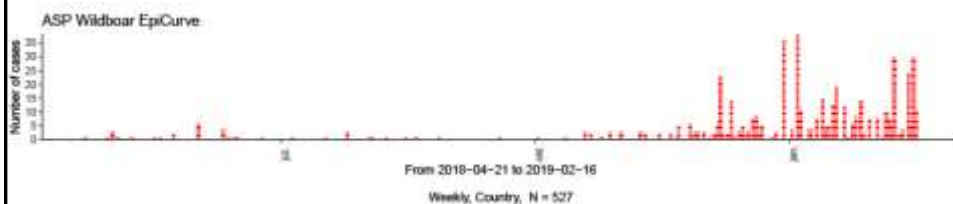
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ASF cases in Hungary in wild boar



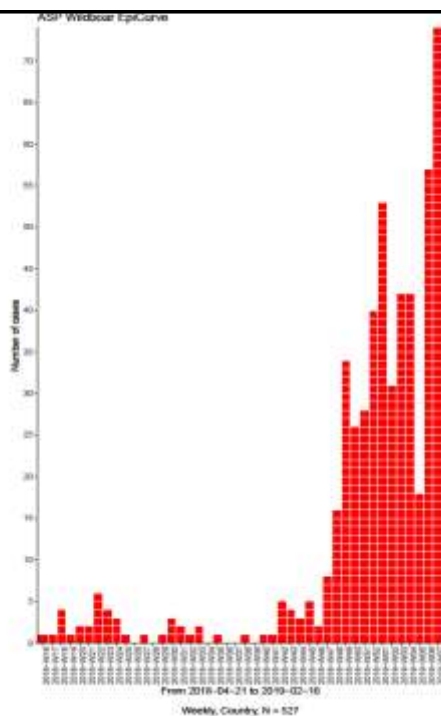
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ASF cases in Hungary in wild boar – Temporal



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- Overall increase in case numbers in November-February highest increase observed in **Heves** county and **Borsod**





Risk categories

Bases on a risk assessment and consultation with the Expert Group each Game Management Unit (GMU) (N=1424) in Hungary has a risk category assigned:

- 1) Highly Restricted Area (HRA)
- 2) Infected Area (outside of HRA)
- 3) High risk area
- 4) Medium risk area
- 5) Low risk area

Re-categorization occurs:

- a) Periodically during the ASF Expert Group meeting;
- b) In case of detection of new cases outside the infected area;
- c) On request of the European Commission

Measures are based on CVO Decision (current 3/2018)

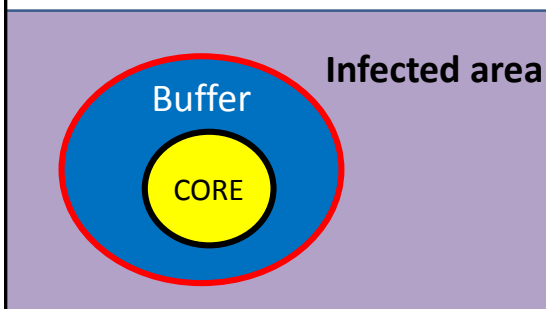


Highly Restricted Area (HRA)

The HRA is located within the Infected area and consist of

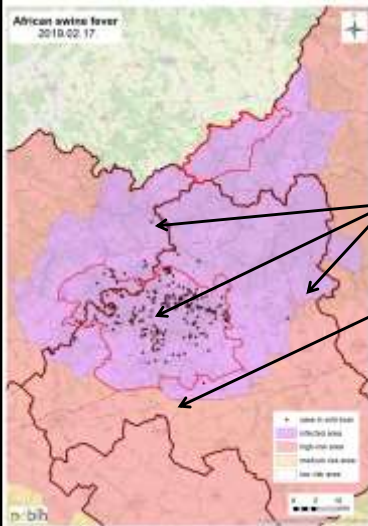
- Core area (min 50 km²) +
- A buffer around the core area (5 km radius)

The area of the HRA is 300 km² – casedep!





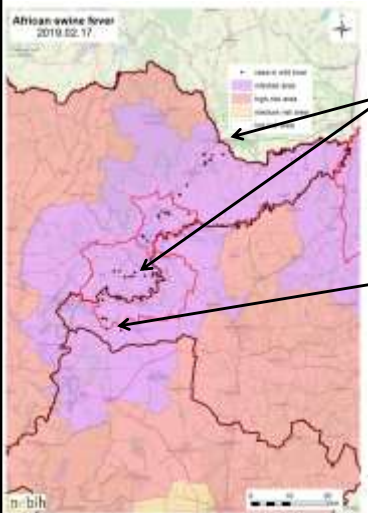
ASF cases in Heves and Nógrád county



- New cases in Heves, majority were within the exceptionally controlled area (red border), but some were outside;
- Highway M3 artificial barrier



ASF cases in Borsod-Abaúj-Zemplén



- Cases in Borsod-Abaúj-Zemplén county (start 2018.10.02), with a spread direction north-east, along the river Bodrog;
- Cases close to Zemplén hegység
- New cases in Szabolcs-Szatmár-Bereg, bordering Borsod-Abaúj-Zemplén county, with spread direction south;



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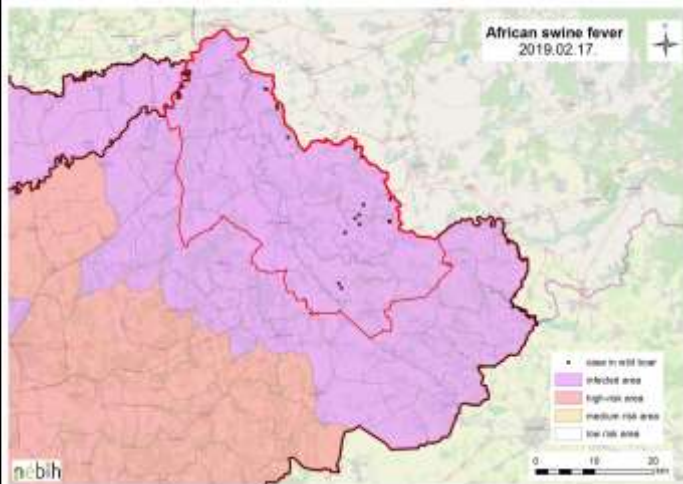


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ASF cases in Szabolcs-Szatmár-Bereg



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Measures in Highly Restricted Area (HRA)

1. **All hunting is banned, but** since 2018 November

Individual hunting of species other than wild boar maybe permitted by County Chief Veterinarian Officer (CCVO), if:

- a) sufficient number of dead wild boar has been submitted
- b) hunter has certificate of ASF training for hunters

Group hunting of species other than wild boar maybe permitted by CCVO if:

- a) sufficient number of dead wild boar has been submitted
- b) no wild boar are present in the are where hunting will take place



Measures in Highly Restricted Area (HRA)

1. All hunting is banned, but permissions are made...
2. Diagnostic shooting of WB showing clinical signs
3. Mandatory notification of wild boar found dead;
4. Active search for wild boar carcasses (\$);
5. Finding dead wild boar carcasses (\$\$\$\$);
6. Sampling dead wild boar carcass and documentation (\$\$)
6. Delivery of dead wild boar carcass to collection point for rendering or burial by pit or on the spot (\$\$\$\$);
7. Control of live wild boar transport;
8. Increased biosecurity for Wild game gardens / parks;
9. Ban of supplementary feeding (only baiting);
10. Population reduction (see next slide)



Measures in Highly Restricted Area (HRA)

10. Population reduction

Because hunting is banned, individual diagnostic shooting is ordered. **Diagnostic shooting = healthy animals are shot (\$), are sampled (\$) and are disposed (\$). (Can be revoked!)**

Based on the yearly wild boar shooting plan

130 % of the sows

125% of animals under 1 year

100% of animals above 1 year

100% of boars

- Hunters are compensated for the value of the animals (\$\$\$\$)
- Hunters may ask to have the meat for own consumption, but only IF they can store the meat until release of PCR results AND results are negative.

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Measures in Infected area outside HRA

1. Individual and group hunting of wild boar is banned;
2. Hunting of species other than wild boar is allowed under certain conditions, but can be banned if not enough dead WB
3. Mandatory notification of wild boar found dead;
4. Diagnostic shooting of WB showing clinical signs;
5. Active search (\$) and finding dead wild boar (\$\$\$\$);
6. Sampling dead wild boar carcass and documentation (\$)
6. Delivery of dead wild boar carcass to collection point for rendering or burial by pit or on the spot (\$\$\$\$);
7. Control of live wild boar transport;
8. Increased biosecurity for Wild game gardens / parks;
9. Ban of supplementary feeding (only baiting);
10. Population reduction = in HRA, but, Group diag. shooting!

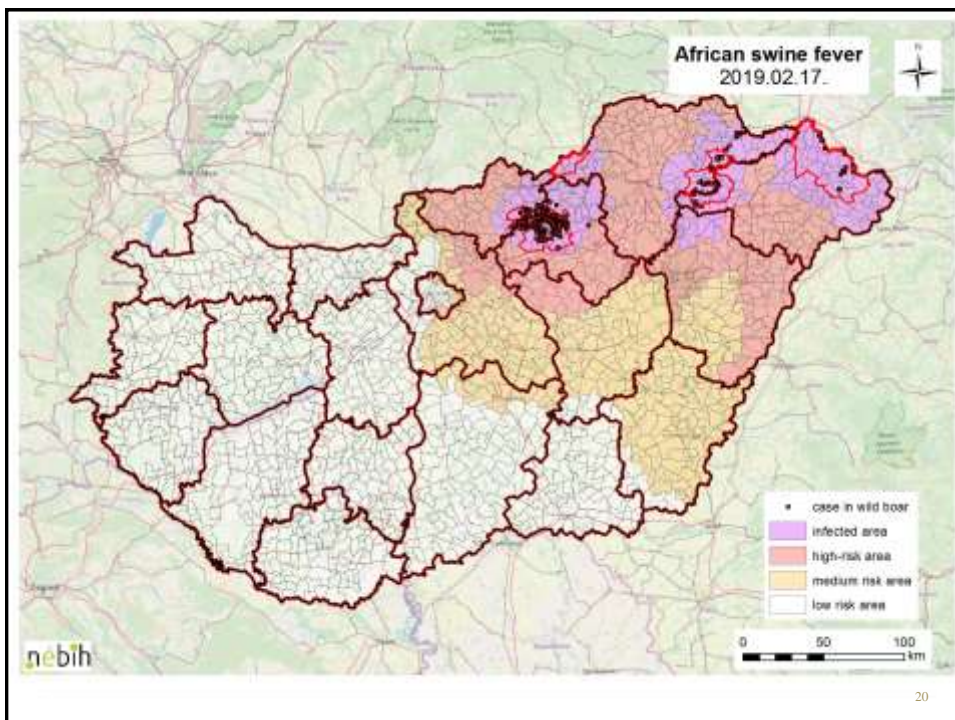
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Measures in High risk area

1. Group hunting of wild boar is allowed under certain conditions, but can be banned if not enough dead wild boar are submitted;
2. Diagnostic shooting of WB showing clinical signs;
3. Active search (\$) and finding dead wild boar (\$\$\$\$);
4. Sampling dead wild boar carcass and documentation (\$\$)
6. Delivery of dead wild boar carcass to collection point for rendering or burial by pit or on the spot (\$\$\$\$);
7. Control of live wild boar transport;
8. Increased biosecurity for Wild game gardens / parks;
9. Ban of supplementary feeding (only baiting);
10. Population reduction (Diagnostic shooting)
11. Regulation of hunted wild boar carcass (freezer, PCR neg.)

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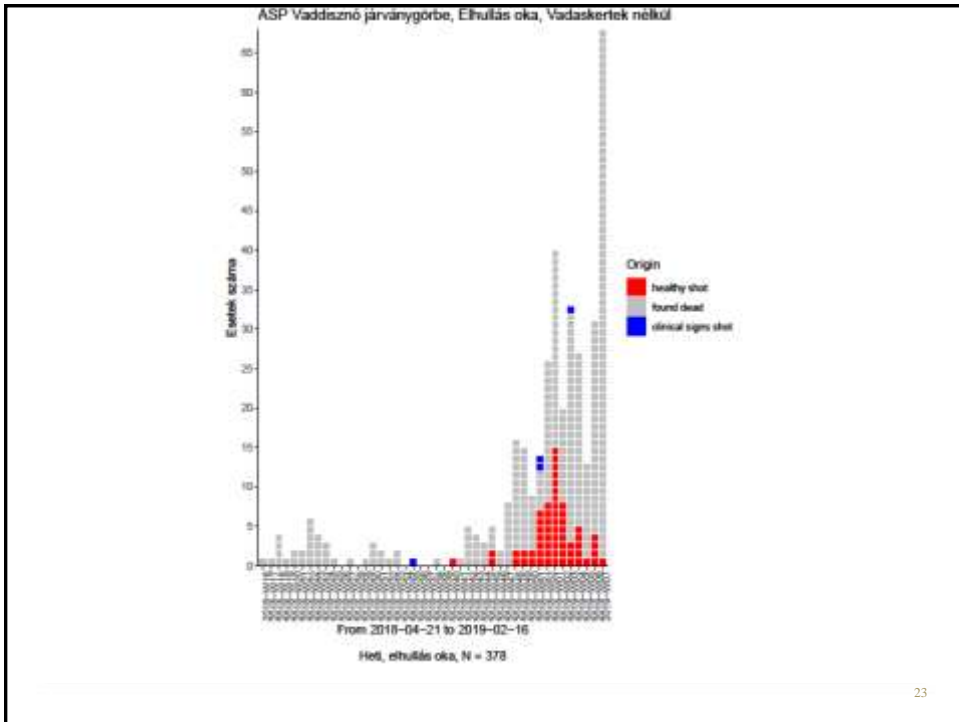
Measures in Medium risk area


1. Diagnostic shooting of WB showing clinical signs;
2. Mandatory notification of wild boar found dead;
3. Finding dead wild boar (\$\$\$\$);
4. Sampling dead wild boar carcass and documentation (\$\$)
6. Delivery of dead wild boar carcass to collection point for rendering or burial by pit or on the spot (\$\$\$\$);
7. Control of live wild boar transport;
8. Increased biosecurity for Wild game gardens / parks;
9. Population reduction (Diagnostic shooting)



Measures in Low risk area

1. Diagnostic shooting of WB showing clinical signs;
2. Mandatory notification of wild boar found dead;
3. Finding dead wild boar (\$\$);
4. Sampling dead wild boar carcass (\$) and documentation (\$)
5. Control of live wild boar transport;




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Some numbers on surveillance

2018	Samples (infected county)	Positive	Percentage	75 times more likely to be found in dead WB
Found dead	739	150	20,3%	
Healthy shot	21,739	60	0,27%	

2019.01.01 – 2019.02.10.	Samples (infected county)	Positive	Percentage	57 times more likely to be found in dead WB
Found dead	328	206	62,8 %	
Healthy shot	3224	35	1.1%	

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Have good record keeping of (dead) wild boar

AIM FOR NON-AGGREGATED DATA!

1. Unique identification of each case
2. Dead – Healthy shot – Clinical signs shot
3. Date of confirmation (PCR)
4. Test result (Positive vs Negative)
5. GPS position (most useful!)
6. Date of finding of carcass/sampling
7. Sex of the animal
8. Age of animal (or age group)
9. State of the carcass (fresh, decomposed, bones)
10. Method of disposal (rendering, bury pit or on the spot)
11. Administrative location
12. Hunting ground of origin (code)

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Advice for the road ahead

- Talk with the hunters, understand them and their way of thinking, train them on biosecurity;
- Understand your hunting system and hunting biosecurity (what happens in the forest during a hunt?);
- Know how many wildboar there are in your country and be skeptical about the number (usually there are more);
- Start working on the dead wild boar searching and recording, best time for this would be now;
- Consider practices that lower the wild boar population before the disease arrives as that will help on the long run.

There is so much to learn about wild boar...

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Thank you for your attention!

