

# Beyond the Pigs: Socio-Economic Impacts of African Swine Fever (ASF) on Indigenous Breeds in Bulgaria and Eastern EU

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ATF One Day Symposium at EAAP Conference - September 1°, 2024 - Florence



# ● Small Scale farms and Indigenous Breeds

- Multiple roles of farms
- Small scale farms and backyards still represents a significant part of agricultural practices in the majority of the Eastern European countries (Iacolina et al., 2021)
- Vibrant rural communities
- Biodiversity values



Bazna Pig (RO)



Mangalitsa Pig (HU)



East Balkan Swine (BG)



Backyards pig farms (RS)

# ● East Balkan Swine

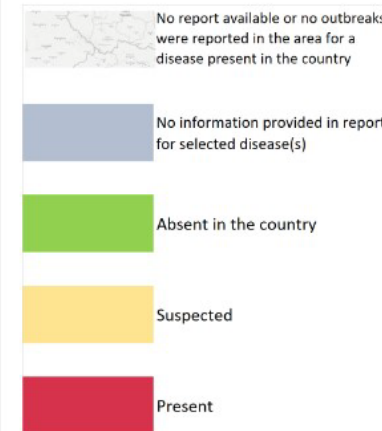
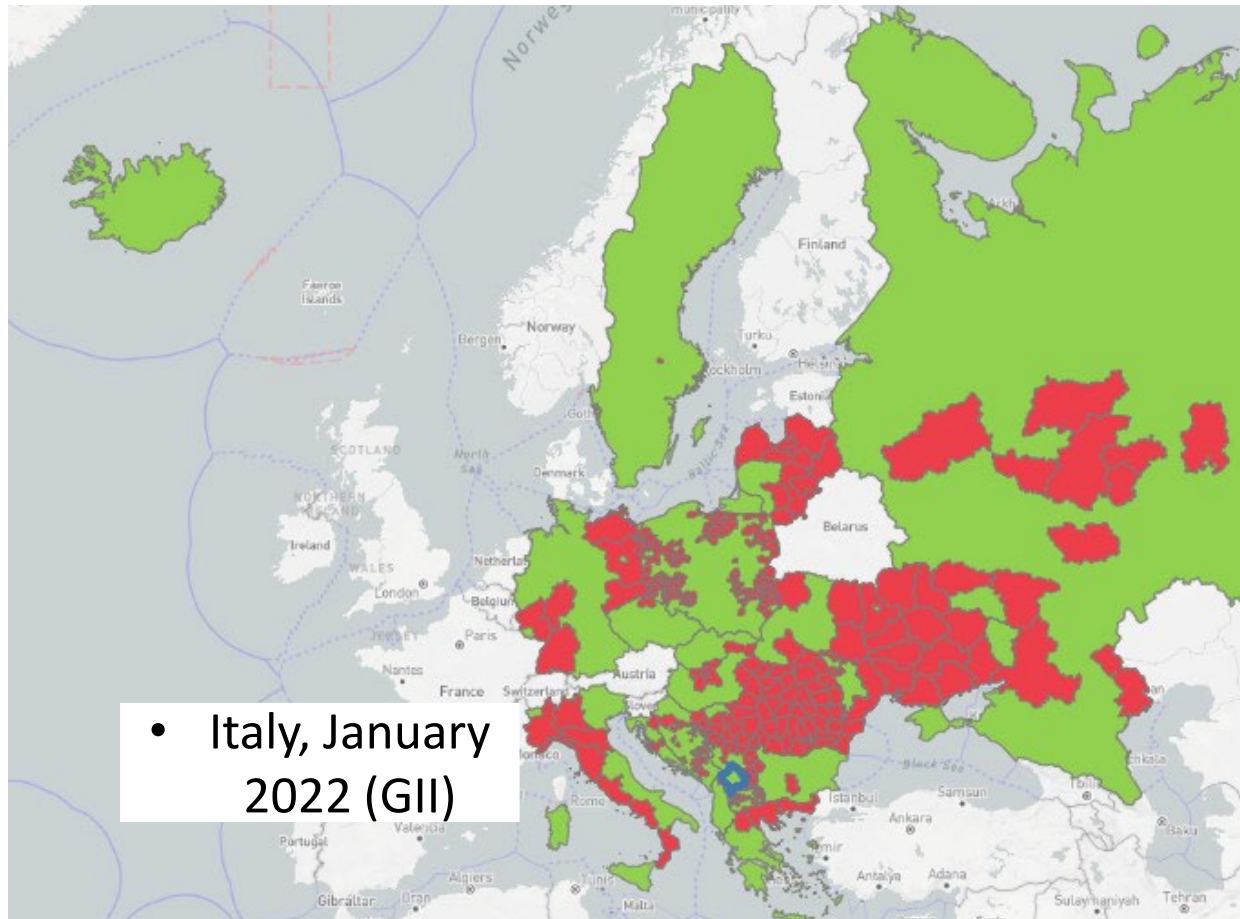
- Lardtype swine similar by phenotype to the wild boar
- Allowed to be kept free-range - inhabits forest parts on the East slopes of Stara Planina Mt. (the Balkan) and Strandzha Mt.
- Excellent adaptability to extensive conditions
- High-quality marble meat with high levels of Omega 3
- Qualifies for PDO product



# African Swine Fever

- First detection in EU was in 2014 in wild boar from the Baltic states and Poland

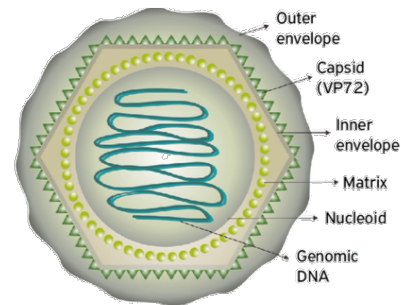
- Romania, July 2017
- Bulgaria, August 2018
- Serbia, August 2019



WAHIS/WOAH, 08.2024

# ● African Swine Fever

- **ASF is a viral haemorrhagic disease** which affects species belonging to the *Suidae* family: in Europe, **domestic pigs and wild boars** are the sole susceptible species
- Lethality rate from 60% to 100%, very resistant virus
- There is currently **no effective vaccine** against ASF available/authorised in Europe



DNA virus (fam. Asfarviridae)

Highly resistant in the environment

## ● Not a zoonose but..

- it has devastating effects on pig populations, trade and country economies
- Lose of biodiversity
- To **control of the disease**: preventive biosecurity measures, movement restrictions, culling of domestic pigs at affected establishments, wild boar populations management

*Resource  
and good  
model*

*Risk factor*



# ASF and East Balkan Swine

- Bulgaria's last indigenous pig breed is high risk of extinction and inbreeding
- Impact of African Swine Fever (ASF) on backyards and smallholder farms



# ● Preliminary and qualitative impact study in EU



Quantitative  
swine fever


Erika Chenais<sup>a</sup>  
Emily Ouma<sup>c</sup>,  
Susanna Stern



The impact  
pig product

Nina Matsumoto  
James R. Young<sup>1</sup>  
Wattana Theppa  
Russell D. Bush<sup>1</sup>

An analysis of the social, cultural, and ecological factors that affect the implementation of biosecurity measures on smallholder commercial swine farms in Italy in the context of an emerging African Swine Fever outbreak

and African

ovski<sup>3</sup> |  
avino<sup>1</sup>  |

Sarah H. Whitaker<sup>a b c 1</sup>  , Alessandro Mannelli<sup>a</sup>, Uriel Kitron<sup>b</sup>, Silvia Bellini<sup>d</sup>





# Methodology

## НАРЕДБА № 6 ОТ 20 МАРТ 2007 Г. ЗА УСЛОВИЯТА И РЕДА ЗА ПАСИЩНО ОТГЛЕЖДАНЕ НА СВИНЕ ОТ ИЗТОЧНОБАЛКАНСКАТА ПОРОДА И НЕЙНИТЕ КРЪСТОСКИ

Издадена от министъра на земеделието и горите

Обн. ДВ. бр.29 от 6 Април 2007г., изм. ДВ. бр.3 от 11 Януари 2011г., изм. и доп. ДВ. бр.65 от 11 Август 2017г., изм. и доп. ДВ. бр.5 от 17 Януари 2020г.

### Раздел I. Общи положения

Чл. 1. (Доп. - ДВ, бр. 65 от 2017 г., в сила от 11.08.2017 г.) С тази наредба се уреждат условията и редът за пасищно отглеждане на стада свине от източнoбалканската порода и нейните кръстоски.

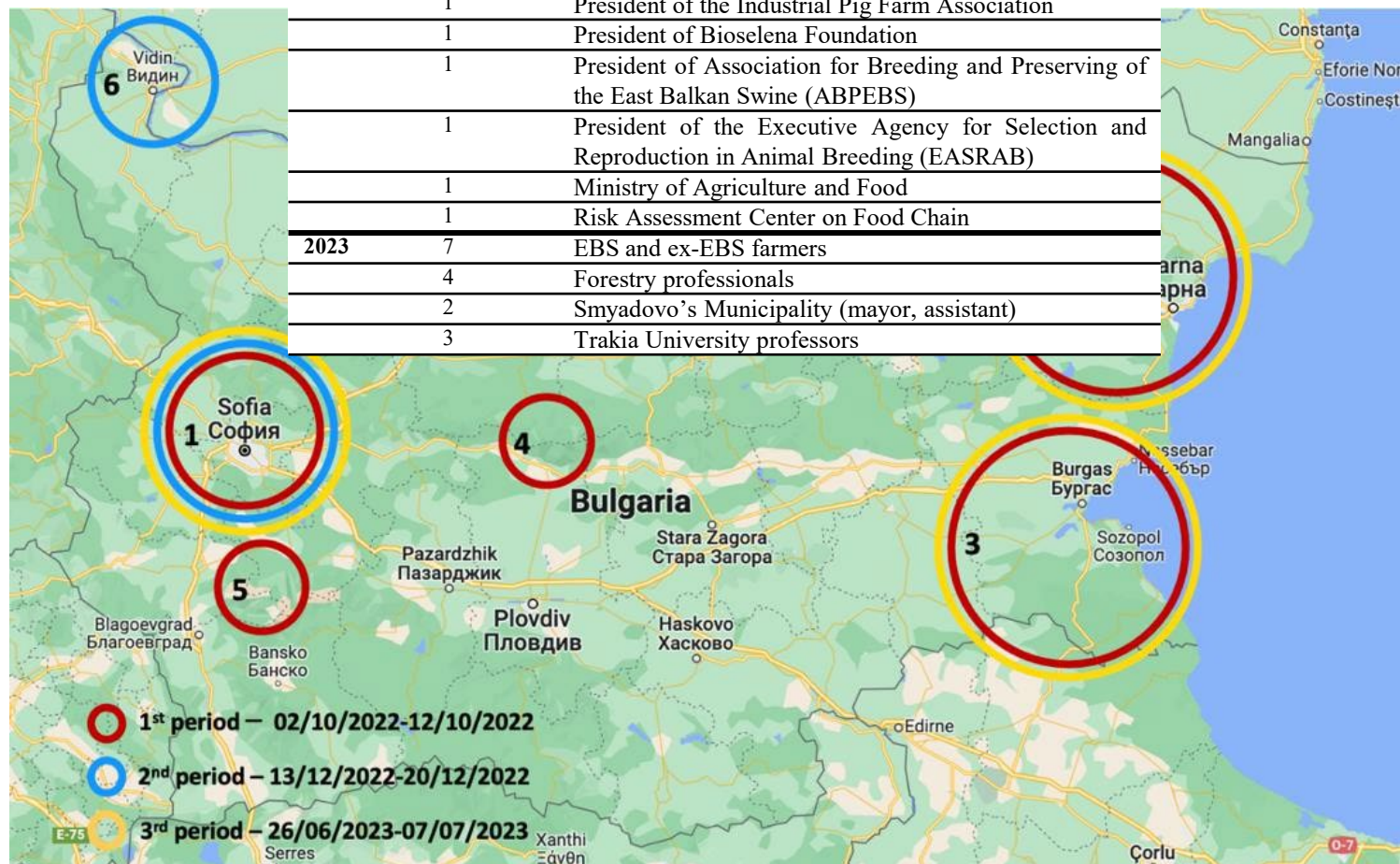


Semi-structured interviews  
and written/online questionnaires (N.32)



Meetings with  
competent authorities

Meetings	Number of meetings	Stakeholders	
2022	6	EBS and ex-EBS farmers	
	4	Backyard and ex-backyard farmers	
	1	President of the Industrial Pig Farm Association	
	1	President of Bioselena Foundation	
	1	President of Association for Breeding and Preserving of the East Balkan Swine (ABPEBS)	
	1	President of the Executive Agency for Selection and Reproduction in Animal Breeding (EASRAB)	
	1	Ministry of Agriculture and Food	
	1	Risk Assessment Center on Food Chain	
	2023	7	EBS and ex-EBS farmers
		4	Forestry professionals
2		Smyadovo's Municipality (mayor, assistant)	
3		Trakia University professors	



# Methodology




**Veterinari Senza Frontiere**


**IMPACT OF AFRICAN SWINE FEVER ON INDIGENOUS BREEDS AND BACKYARDS FARMS IN EASTERN EU COUNTRIES**



SCAN THE QR CODE TO DOWNLOAD THE FULL PROGRAM



**29 - 30 JUNE 2023**  
 HALL OF THE ENVIRONMENT EXECUTIVE AGENCY  
 2nd floor - Sofia, 136A Tzar Boris II blvd





Speakers	Country
Ministry of Agriculture and Food	Bulgaria
Risk Assessment Center on Food Chain	Bulgaria
Association for Breeding and Preserving of the East Balkan Swine (ABPEBS)	Bulgaria
Executive Agency for Selection and Reproduction in Animal Breeding (EASRAB)	Bulgaria
Slow Food Bulgaria	Bulgaria
Friedrich-Loeffler-Institut	Germany
Mangaliza pig breeders' association	Hungary
Slow Food Italia	Italy
Veterinari Senza Frontiere Italia	Italy
Bazna pig breeders' association	Romania
Scientific Veterinary Institute "Novi Sad"	Serbia
University of Castilla	Spain



## ● Results – Bulgaria → ASF consequences

- Drastic reduction in backyards due to culling campaigns in 2019

2016: 29930 backyards



2021: 6859 backyards

- All of the interviewed EBS farmers (except one) have lost their entire herds, causing an **emotional and economic impact** on them

2018: 4968 EBS pigs in 59 herds



2024: 388 EBS pigs in 12 herds

(2 of which belong to the Executive Agency)



# Results – Bulgaria Factors which limited the possibility of restarting the activity of EBS farms



Areas for farming EBS in the allowed regions



To date, **no legal options** exist for selling EBS meat and no slaughterhouses accept EBS



Changing farm type from outdoor to indoor would affect **EBS meat quality** and **animal welfare**



# Results – Bulgaria Factors which limited the possibility of restarting the activity of EBS farms



**Insufficient subsidies**, considering the additional biosecurity measures required and losses

- direct impact (66.7% of EBS farmers)
- indirect (e.g. - trade restrictions 77.8% )



60% of their income came from meat selling

Significant disparities in financial support and implementation of preventive measures emerged when comparing different EU realities (other local breeds like Bazna Pig (RO) and Mangalitsa (HU))

## ● Results: proposals

- **Planning land use** in the natural habitat of the breed, ensuring adequate biosecurity measures and animal welfare
- **Financial support** for proper fencing implementation and other biosecurity measures
- Update national regulation to allow EBS breeders to use **slaughterhouses** (consider also common mobile slaughterhouses) and to regulate the **direct trade of primary products**
- Implementation of a **conservation plan** for genetic heritage both in situ and ex situ

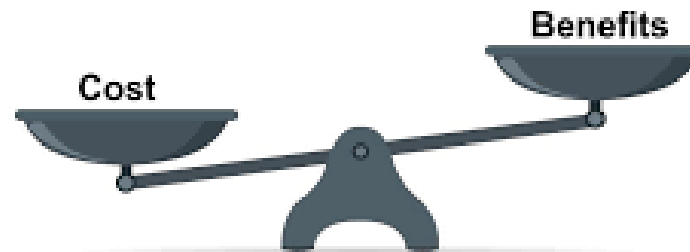
**LESSON LEARNED FOR OTHER COUNTRIES**

# Conclusions

In the long term, ASF strategy applied will **pose at risk**:

- **Chains of local production and own consumption**
- **Cultural heritage**
- **Biodiversity**
- Rural areas use, contributing to the **land abandonment phenomenon**

ASF control should also consider the socio-economic country reality and the possibility of focused derogation or *ad hoc* specific measures developments



# ● Follow-up → From qualitative to quantitative

Proper indicators for a quantitative evaluation of the impact of ASF in these farms IN EU must be developed

**INVEST BIO - Indicators to evaluate the economic and social impact of African swine fever (ASF) and the limits to biosafety in small-scale farms (Italian MoH- January 2024)**







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Senza  
Frontiere

## African Swine Fever and East Balkan Swine: what remains of a unique Indigenous Pig Breed of Bulgaria?



BIMONTHLY  
CALENDAR 20  
24

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