

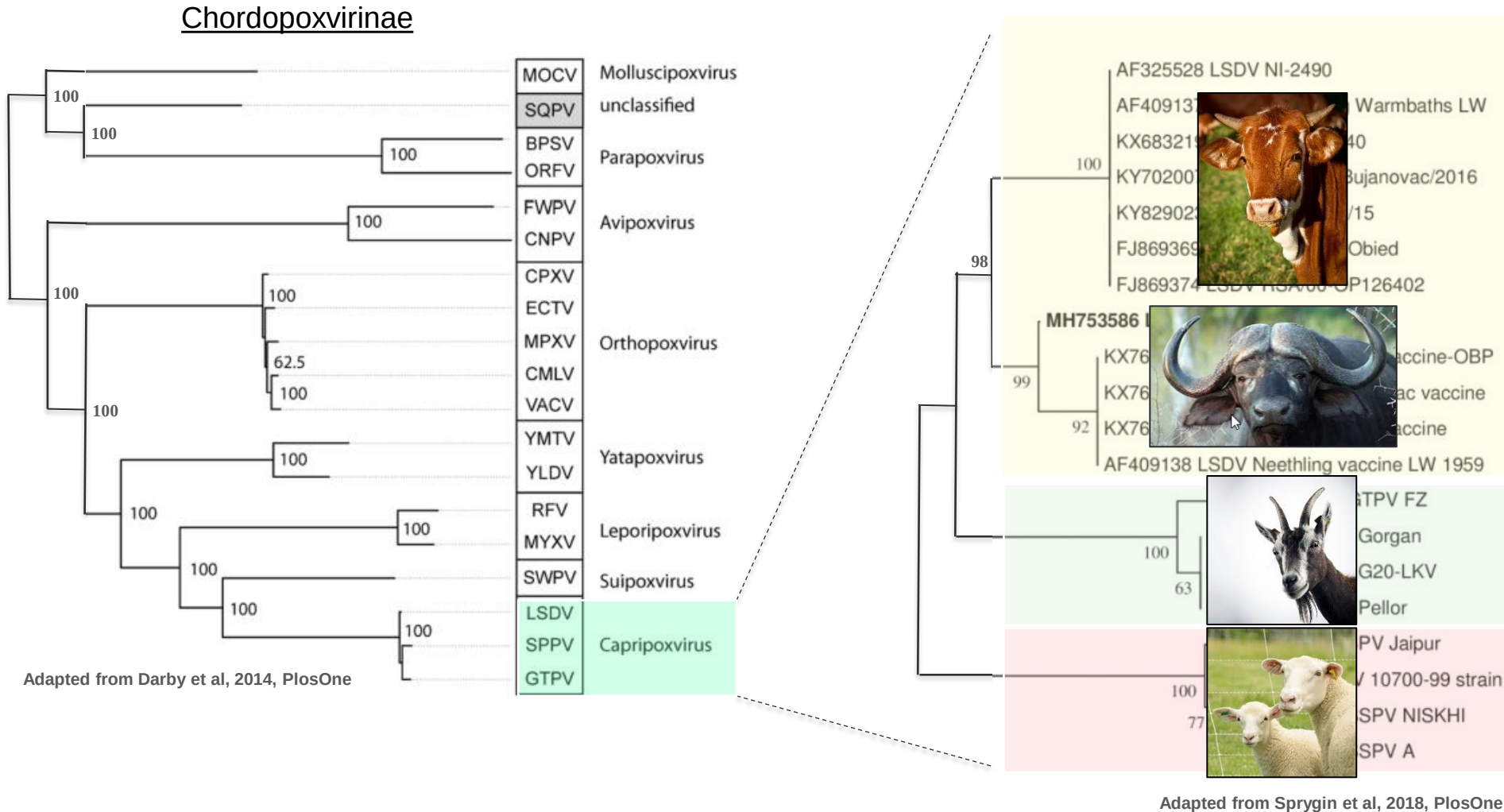


UPDATE ON THE PHYLOGENETIC ANALYSIS OF THE SHEEPPPOX VIRUSES CURRENTLY PRESENT IN THE EU

Andy Haegeman

29/06/2026

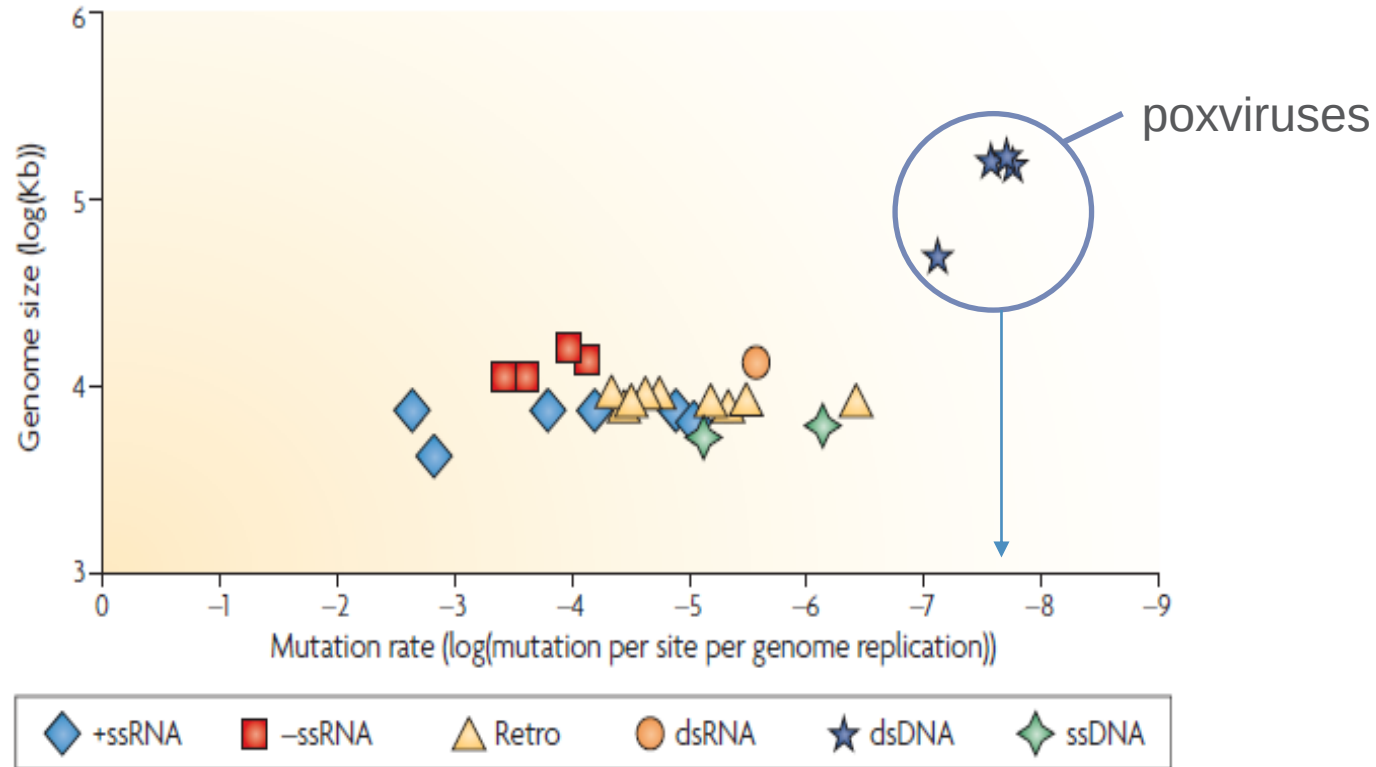
Capripox viruses



- High nucleotide identity between SPPV, GTPV, LSDV: +/- 96%

Genetic evolution

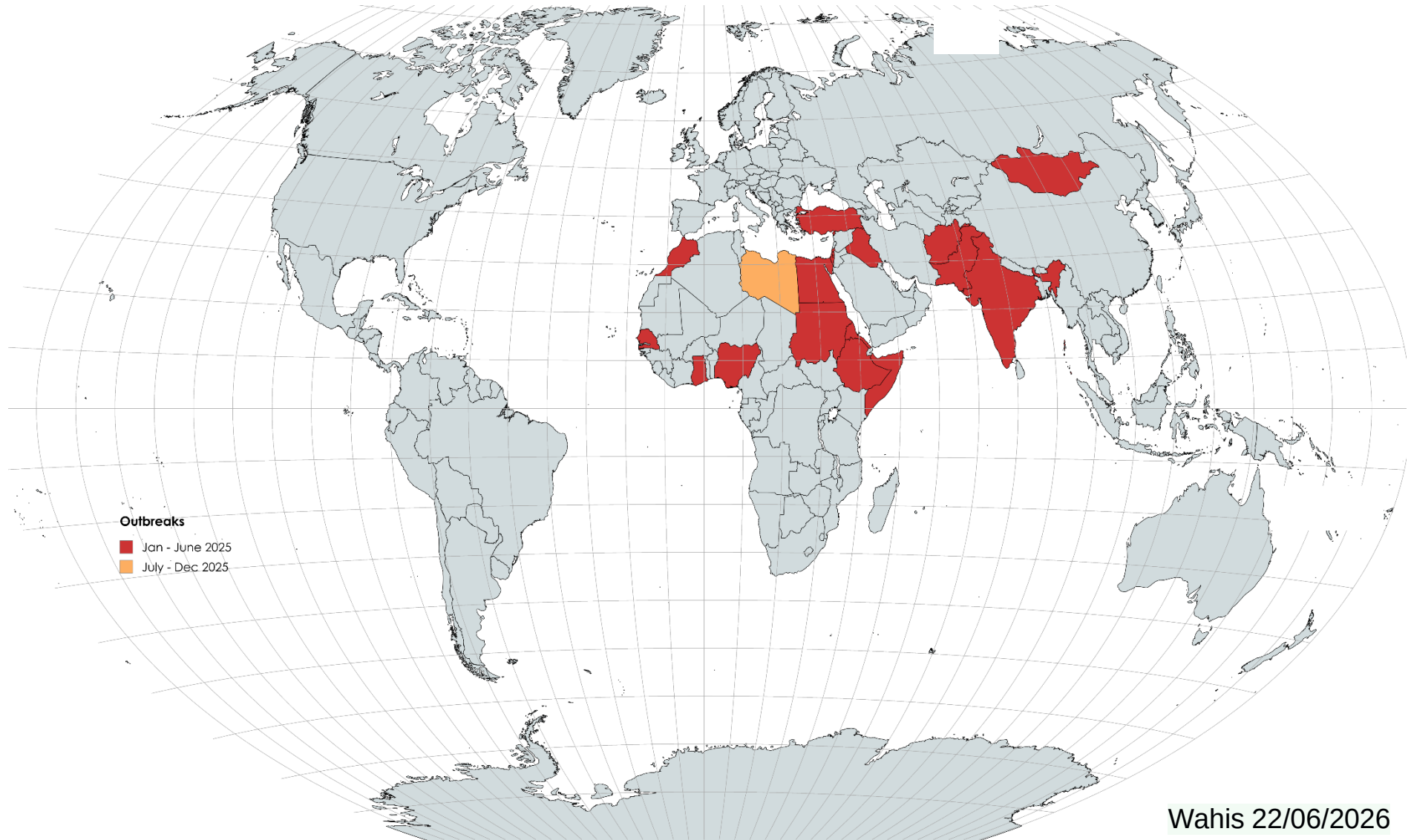
- *Poxviridae*, genus *capripoxvirus*, non-segmented dsDNA, ~150-151kb in size.



Duffy et al, 2008, Nature reviews genetics

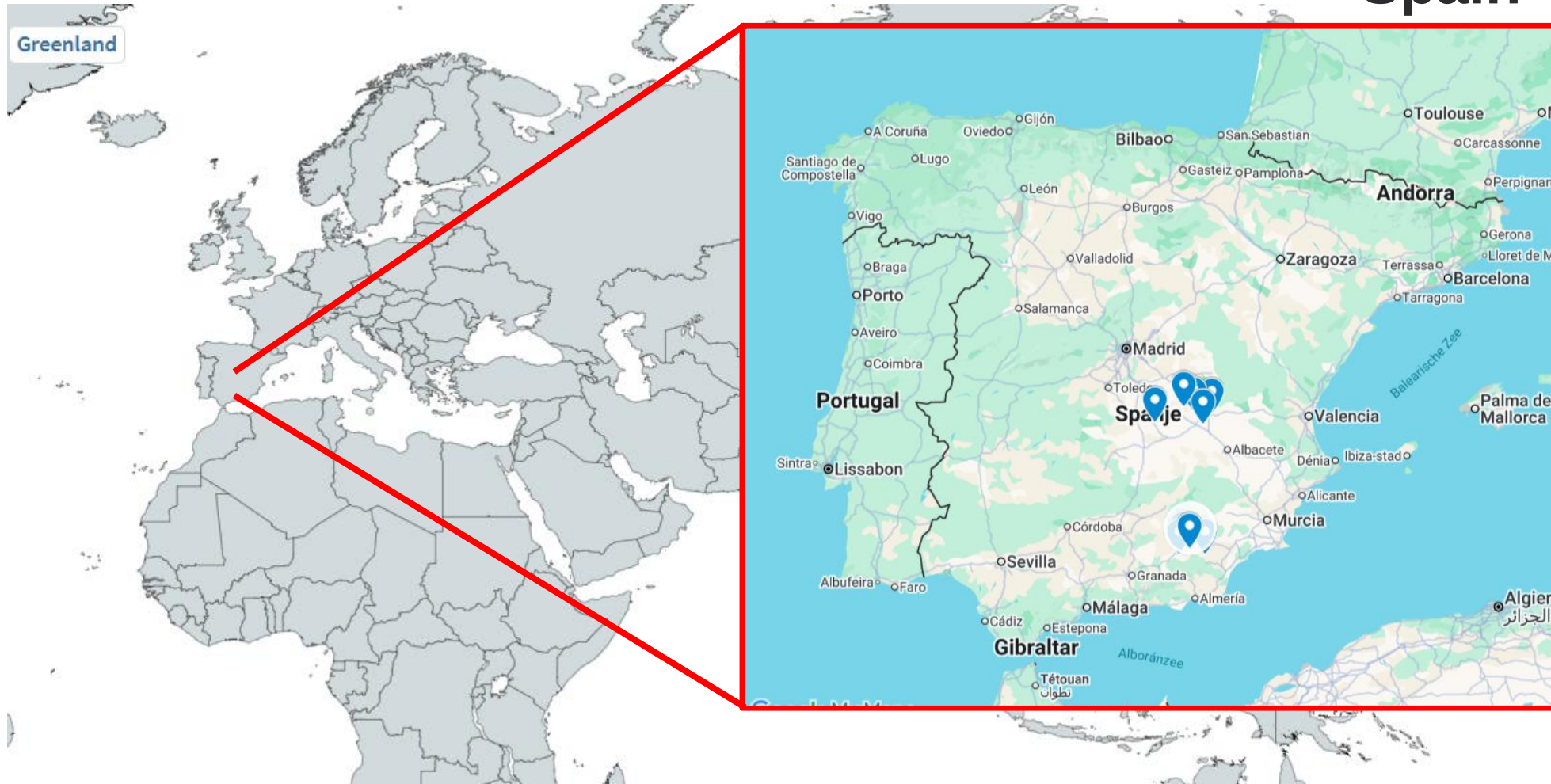
- Genetically stable, evolve slowly → no molecular outbreak tracing
- Important to determine sequence of outbreak strain: diagnostics, virulence, transmission, vaccine efficacy, origin

SPPV in the world 2025-26



SPPV in the Europe 2022 - 2026

Spain



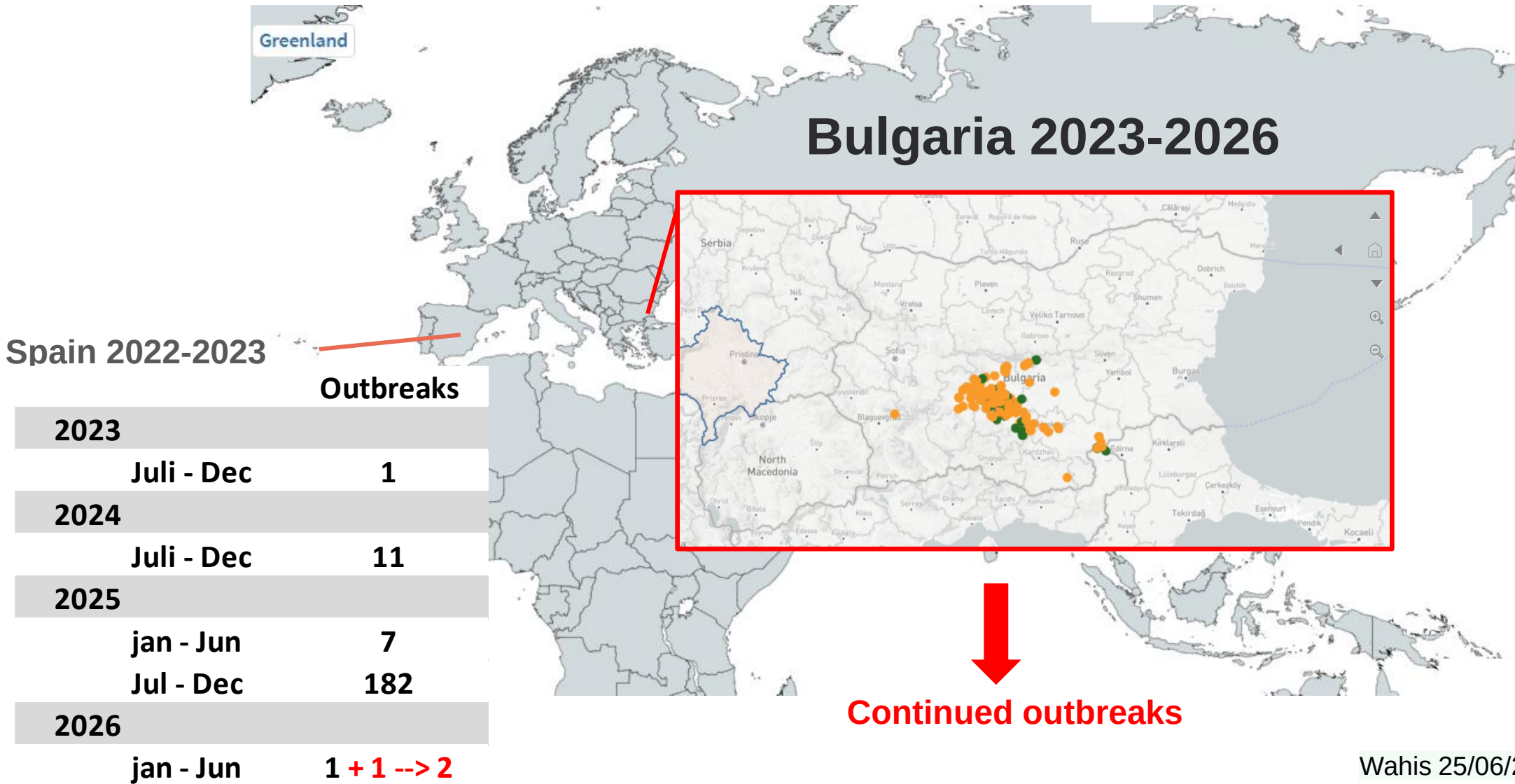
Sept 2022 - May 2023
32 outbreaks



No further developments

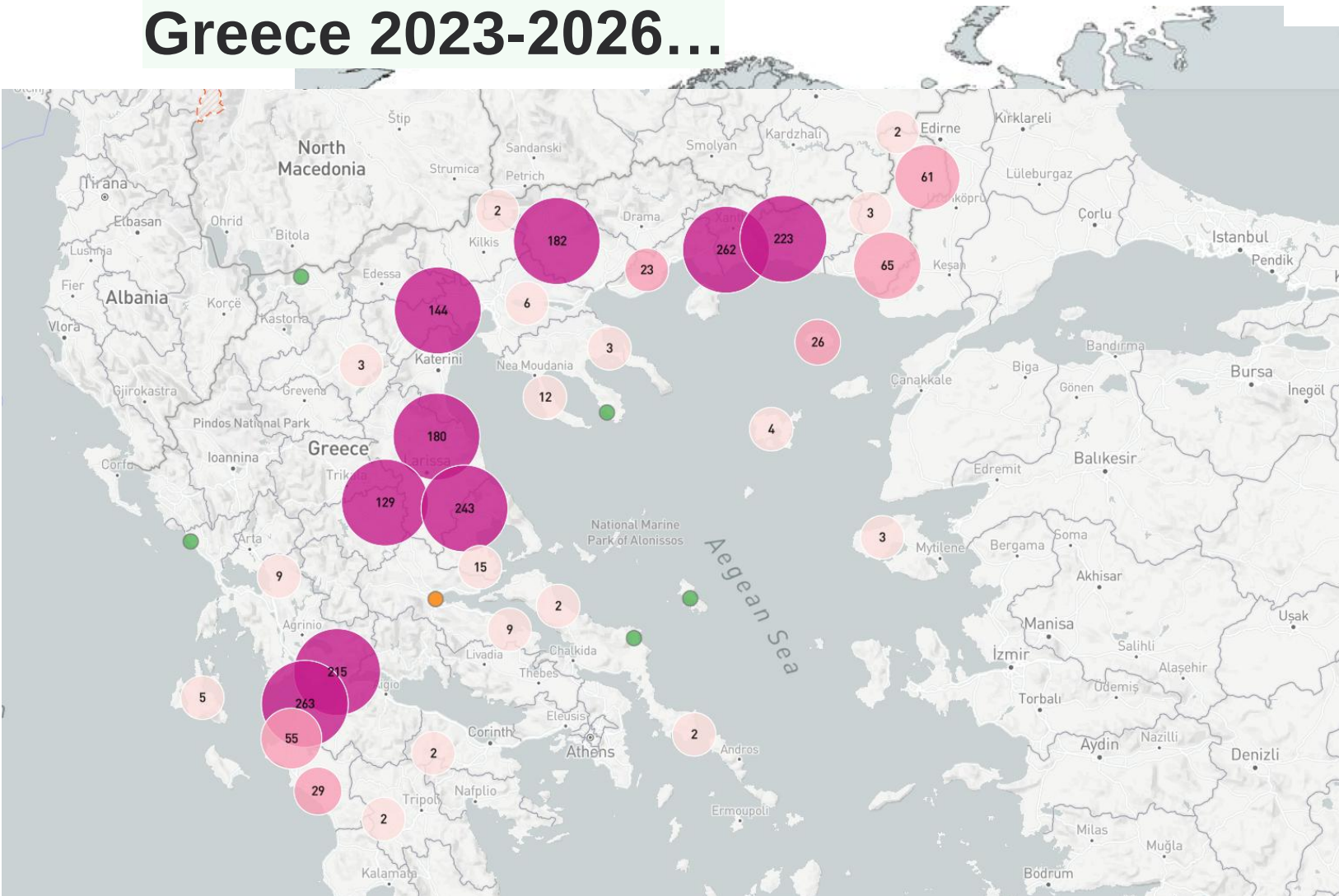
Wahis 22/06/2026

SPPV in Europe, 2023-2026



SPPV in Europe, 2023-2026

Greece 2023-2026...

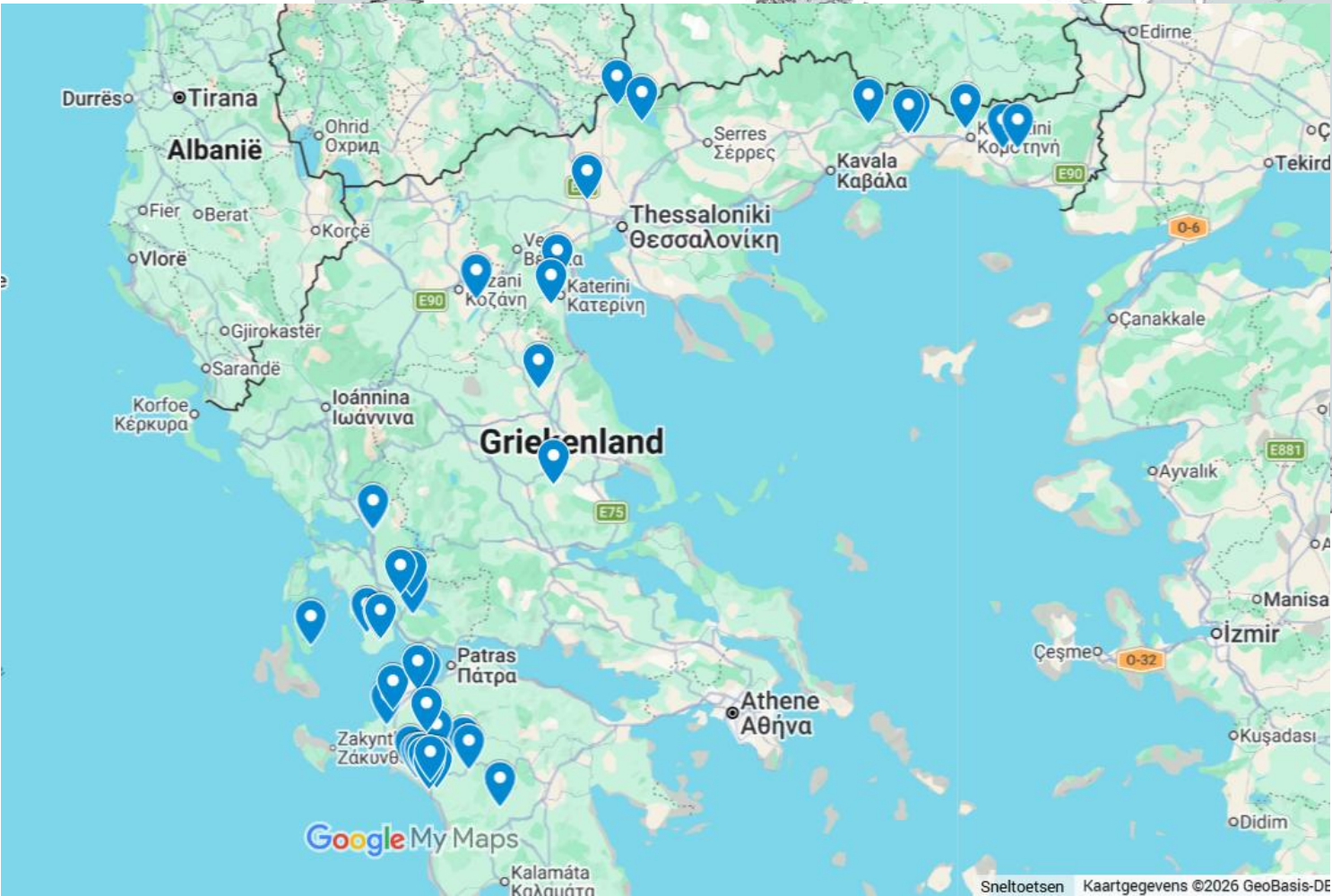


Outbreaks	
2023	
Juli - Dec	5
2024	
jan - Jun	4
Jul - Dec	324
2025	
jan - Jun	223
Jul - Dec	1483
2026	
jan - Jun	66 + 87 --> 153

Continued outbreaks

SPPV in Europe, 2023-2026

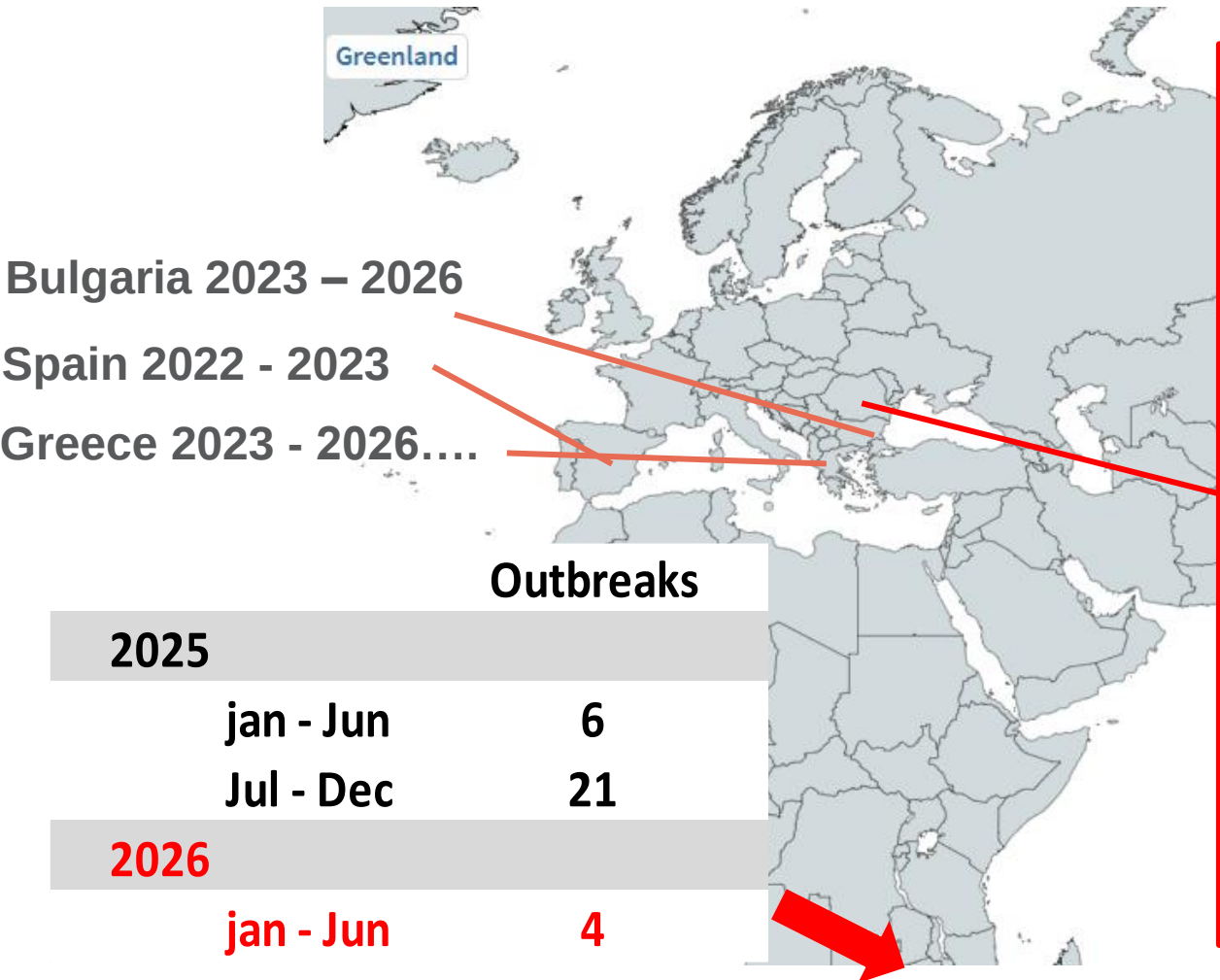
Greece 2023-2026...



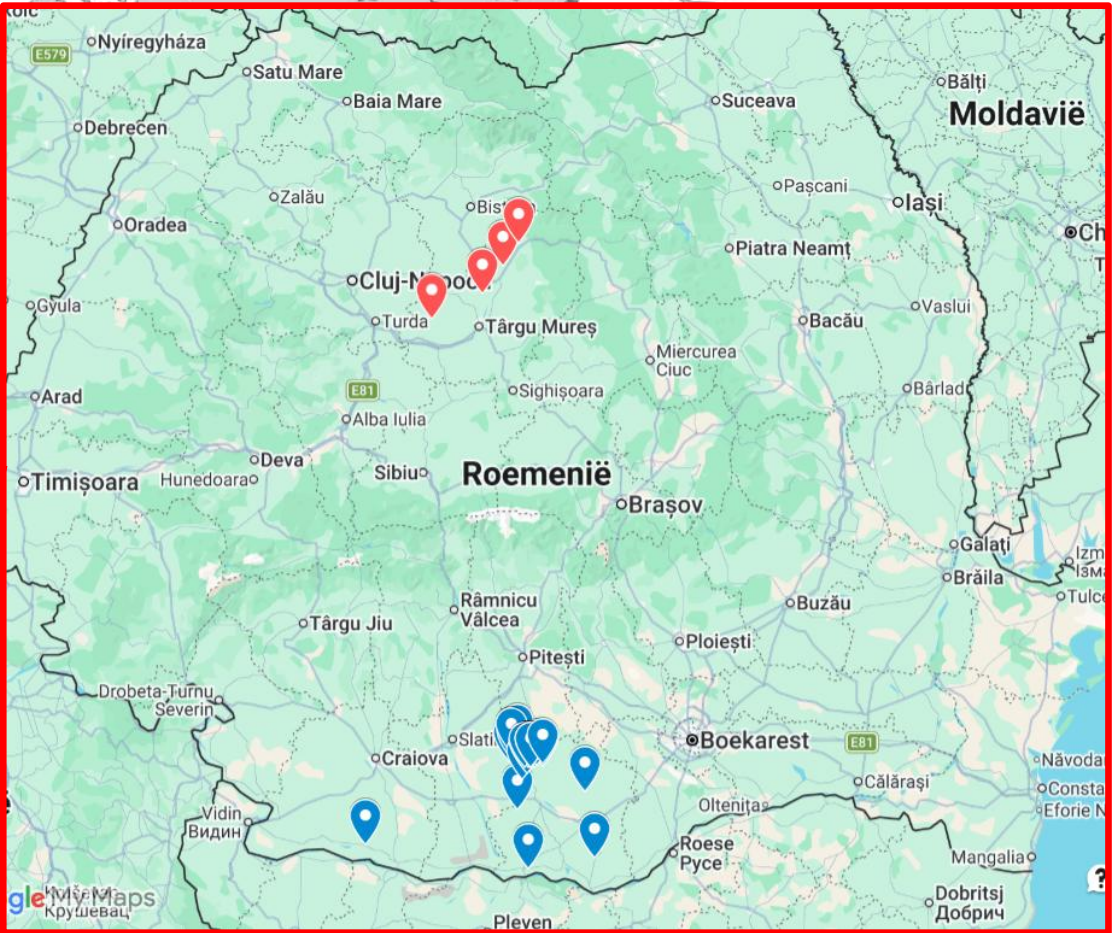
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Continued outbreaks

SPPV in Europe, 2023-2026

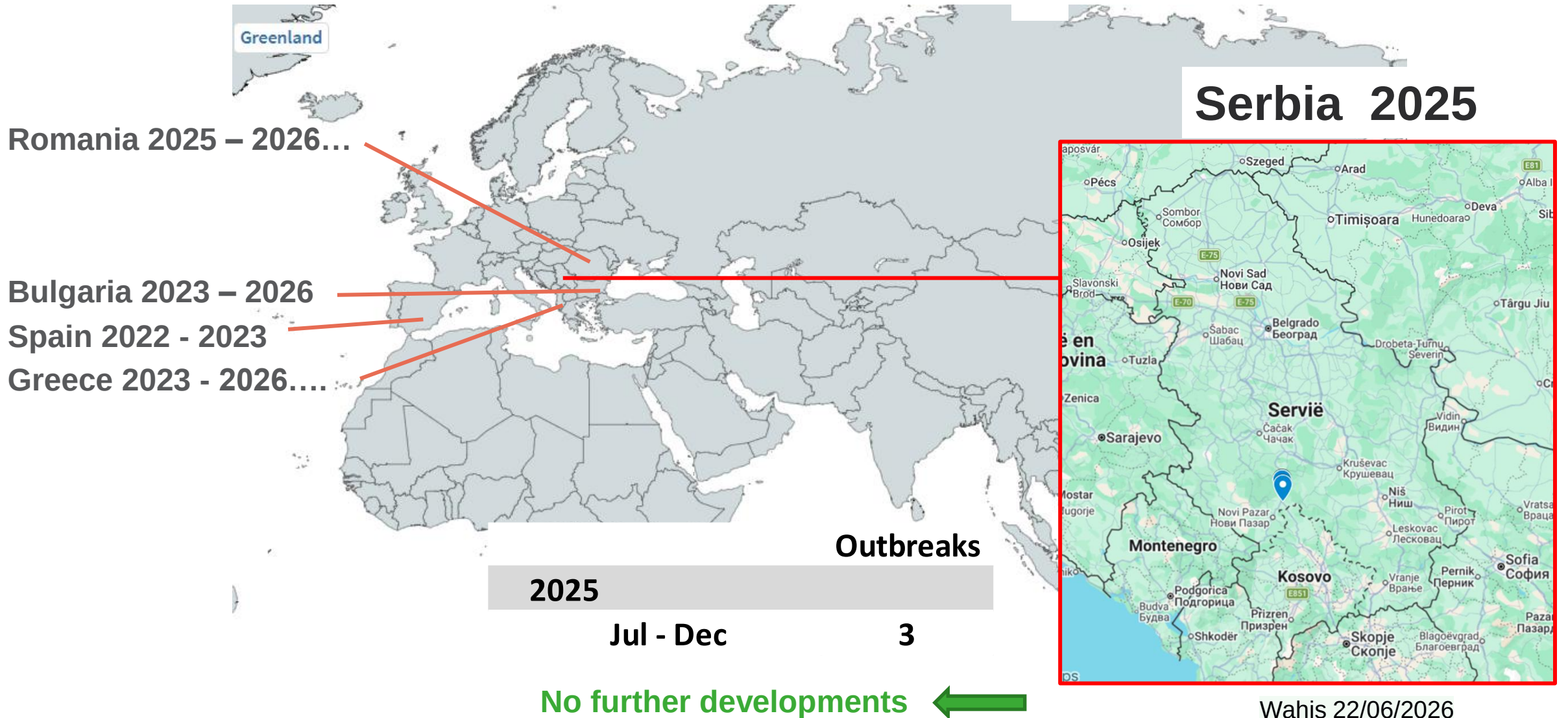


Romania 2025-2026...

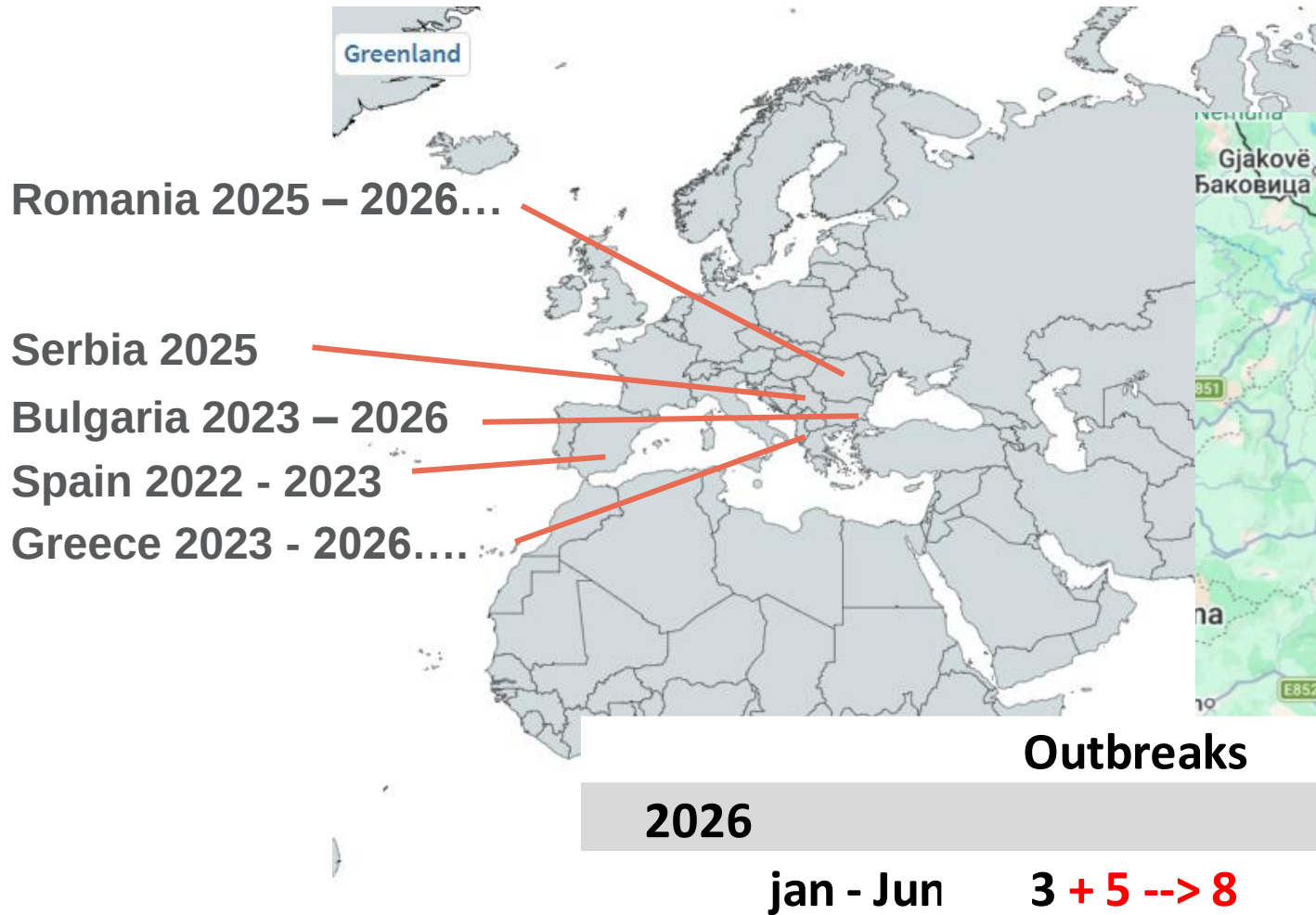


Continued outbreaks

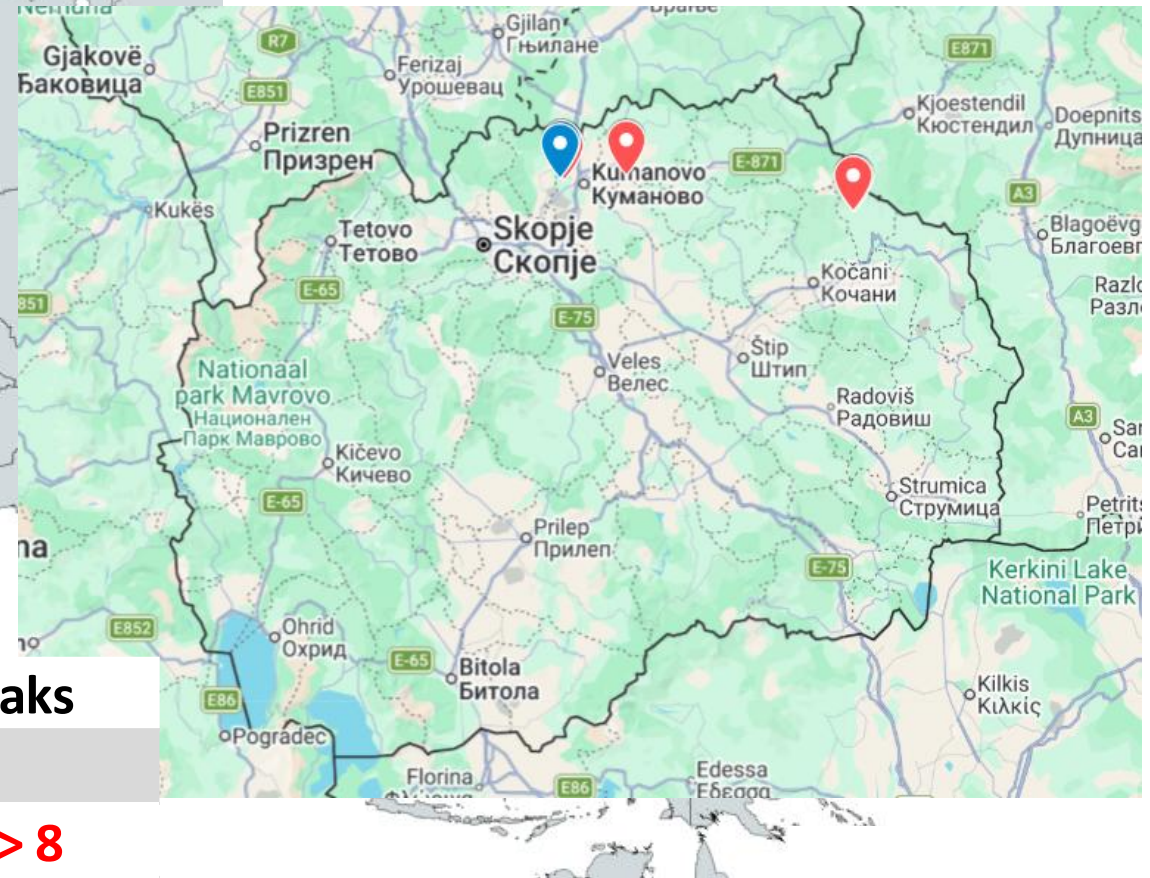
SPPV in Europe, 2023-2026



SPPV in Europe, 2023-2026



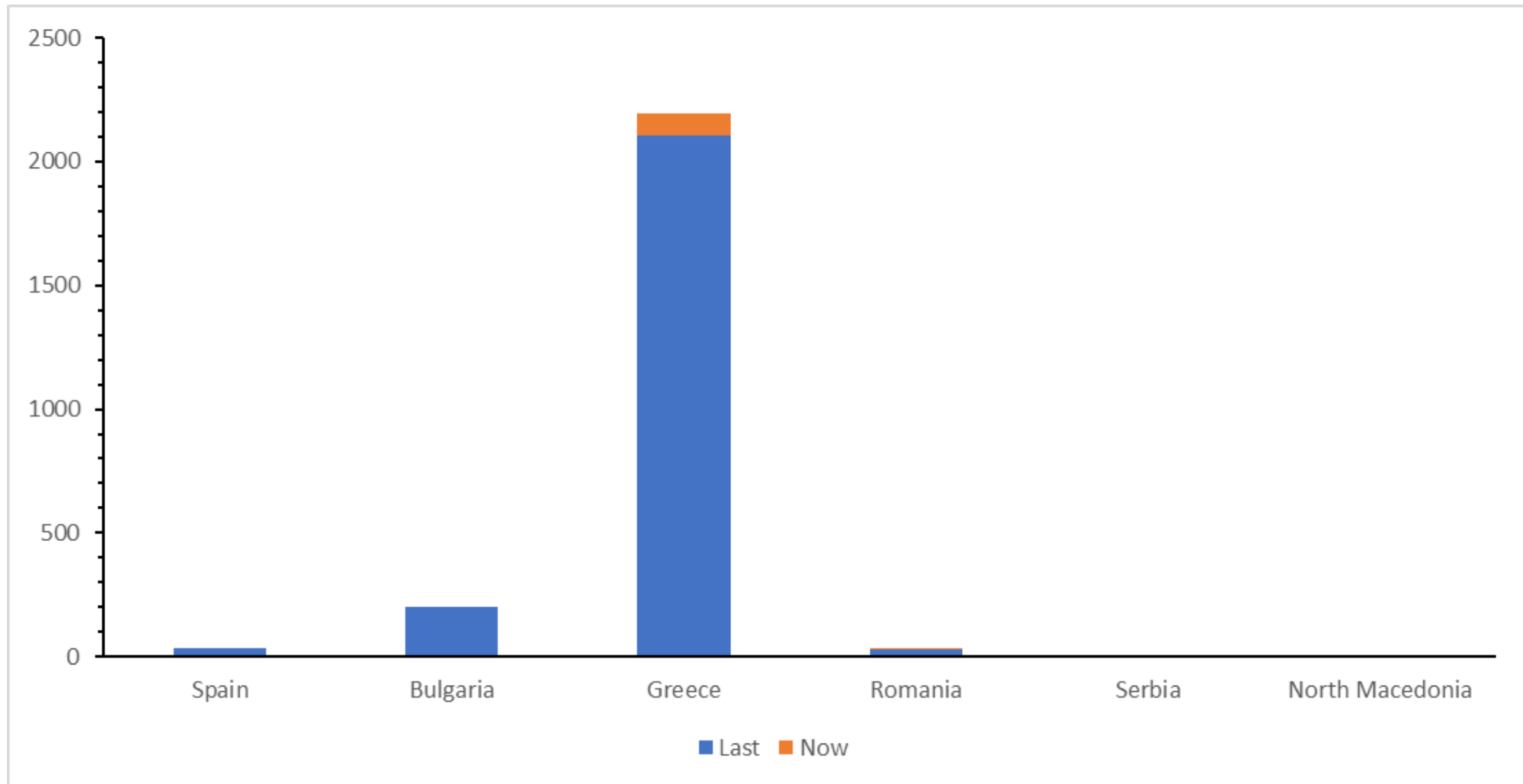
North Macedonia 2026



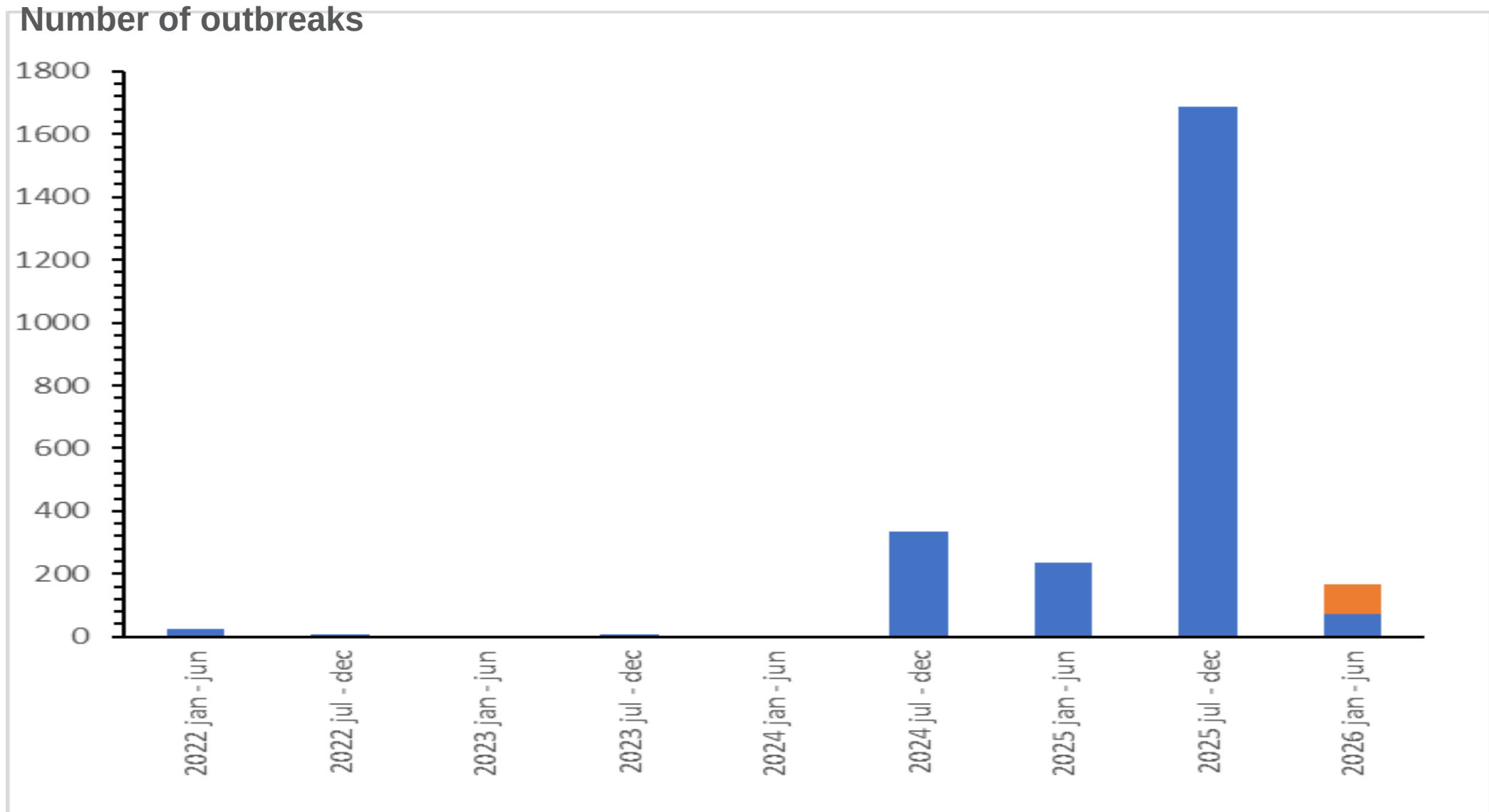
Continued outbreaks

SPPV in Europe, 2023-2026

Number of outbreaks



SPPV in Europe, 2023-2026



Phylogeny SPPV outbreaks 2022 - 2026

- Samples received for WGS



NRL Spain: Agüero M, Villalba R

NRL Greece: Tasioudi K, Chaintoutis S,
Kirtzalidou A

→ Additional samples added (2025)

NRL Bulgaria: Ivanova E

NRL Romania: Ancuceanu BC

→ Additional sample underway

NRL Serbia: Vidanović D

NRL Republic of North Macedonia: finished

Phylogeny Conclusions:

2022 - 2023

- Spain: only 2 indel differences between strains from the first and last outbreaks
- Greece: no genetic differences between outbreak strains from Lesbos and mainland Greece in 2023
- Low sequence differences recent European outbreak strains (29 variable positions in total)

2026 - 2026

- Outbreak 2024-2026 caused by another strain (Clade A1 strain) than outbreak 2022-2023 (Clade A2 strain)
- Very high sequence similarity between all sequenced strains → same strain spread 2024-2026

Contact

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