

## Rhabdovirus disease outbreak in the wild in eelpout in Sweden

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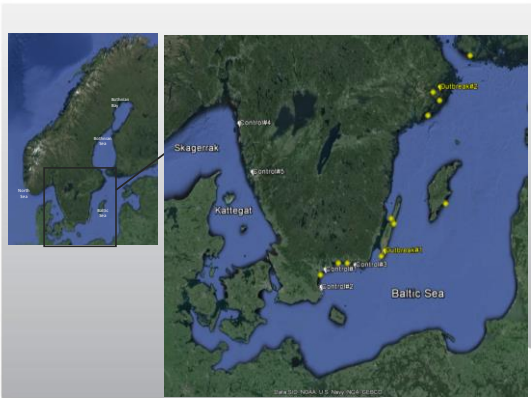
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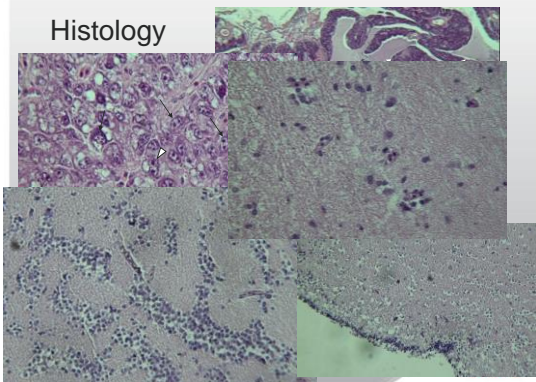
## Eelpout – *Zoarces viviparous*



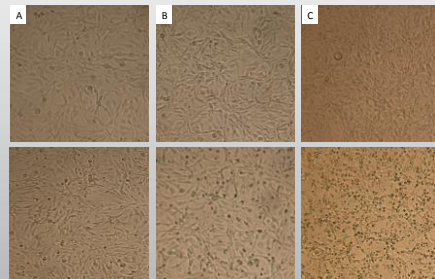
## Necropsy



## Histology



## Cell culture



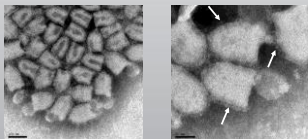
A=24 h, B=48 h, C=7 days



### IFAT/Chloroform inactivation/EM

- Chloroform inactivation – enveloped virus
- IFAT – no hit, no clearcut definition as to which group it should be placed

• EM:



### Deep Sequencing I



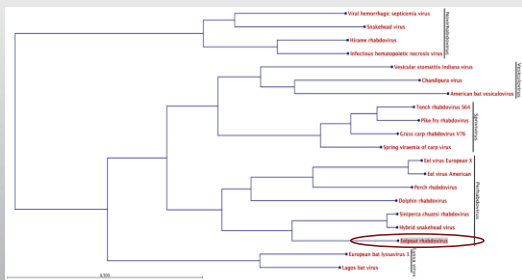
- 11,139 nucleotide consensus sequence
- 59,5% similarity to *Siniperca chuatsi rhabdovirus*



- 99.76-99.77% similarity between Outbreak#1 and #2 sequences



### Deep Sequencing II



Outbreak# / Control#	Fish (individual or)	Organs	Deep sequencing	RT-PCR*
			DNA <sup>+</sup> no significant hits	Positive <sup>1</sup>
			RNA <sup>+</sup> positive*	All positive
			ND	
			RNA <sup>+</sup> positive*	Positive
			ND	K, S, H, B
Control# 2, European eel rhabdovirus (EPRV) from fish #1				
Fish 14-24 (out)			K, S, H (pooled per fish)*	
Control# 1, wild gizzard (Pholis gizzard) from Baltic				
Fish 15-17 (in)			ND	
Fish 28-31 (out)			NS <sup>†</sup>	
Control# 1, round goby (Neogobius melanostomus) from Białka				
Fish 33-33 (out)			K, S, H, B (pooled per fish)*	
Control# 1, walpole (Zostera villosa) from the west coast, Göteborg				
Fish 34-37 (out)			K, S, H (pooled per fish)*	
Control# 1, walpole (Zostera villosa) from the west coast, Göteborg				
Fish 38-41 (out)			K, S, H (pooled per fish)*	All negative



### Sum up

- New Perhabdovirus – Eelpout rhabdovirus (EPRV)
- Associated with lethal disease
- Seems to be specific for eelpout
- Emerging in the Baltic Sea
- Origin?
- Suspicion – cell culture on BF-2 and FHM



### Other notifiable diseases in Sweden in 2014

- BKD – 2 farms with 2 and 4 infected farming sites respectively
- Yersiniosis (*Y. ruckeri* serotype 2) – 3 cases: One farm, one case in wild salmon (river) one case in cod from Hanönbukten
- IPNab - 1 farm
- Martellosis – 4 cases, one farm 3 wild
- Crayfish plague – 6 cases



**THE  
END**



SVA