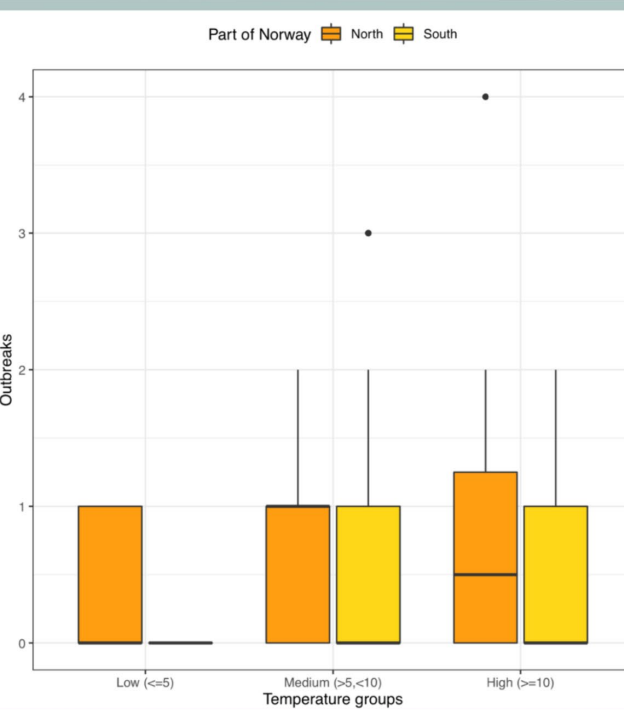


# No correlation between temperature and ISA outbreaks in *Salmo salar* in Norway

## HYPOTHESIS

# Higher sea temperature increase the amount of ISA outbreaks



ISA is a significant, contagious viral disease of fish. It can cause severe losses to infected farms and is, therefore, an economically important pathogen. It has been considered such a threat that it is a notifiable disease on the European Union list of the most dangerous fish diseases. The presence or suspicion of ISA must be reported immediately to the Norwegian food safety authority. In Norway, an average of 10 fish farms have outbreaks of this disease each year. Mortality can vary from insignificant to massive at both cage level and locality level. Based on annual outbreaks and the number of sites in operation, the risks of getting ISA in Norway is about 2%.

In this study, we look at the importance of temperature as a potential risk factor associated with outbreaks of ISA in the seawater stage. We will focus on two different temperature stations in the north and south and the number of outbreaks between the north and the south part of Norway, to find a correlation.

Fig.1 show the outbreaks of ISAV at different temperatures distributed along the coast of Norway in both the north and south regions. Temperatures at outbreaks are divided into intervals: low ( $< 5$  °C), medium ( $> 5, < 10$  °C) and high ( $> 10$  °C).



**CONCLUSION** No clear correlation between temperature and number of ISA outbreaks was found. There is a need for further studies on temperature as an inducing factor for these kind of ISA outbreaks.