Prevalence of salmonid alphavirus in common dab Limanda limanda

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Co-workers

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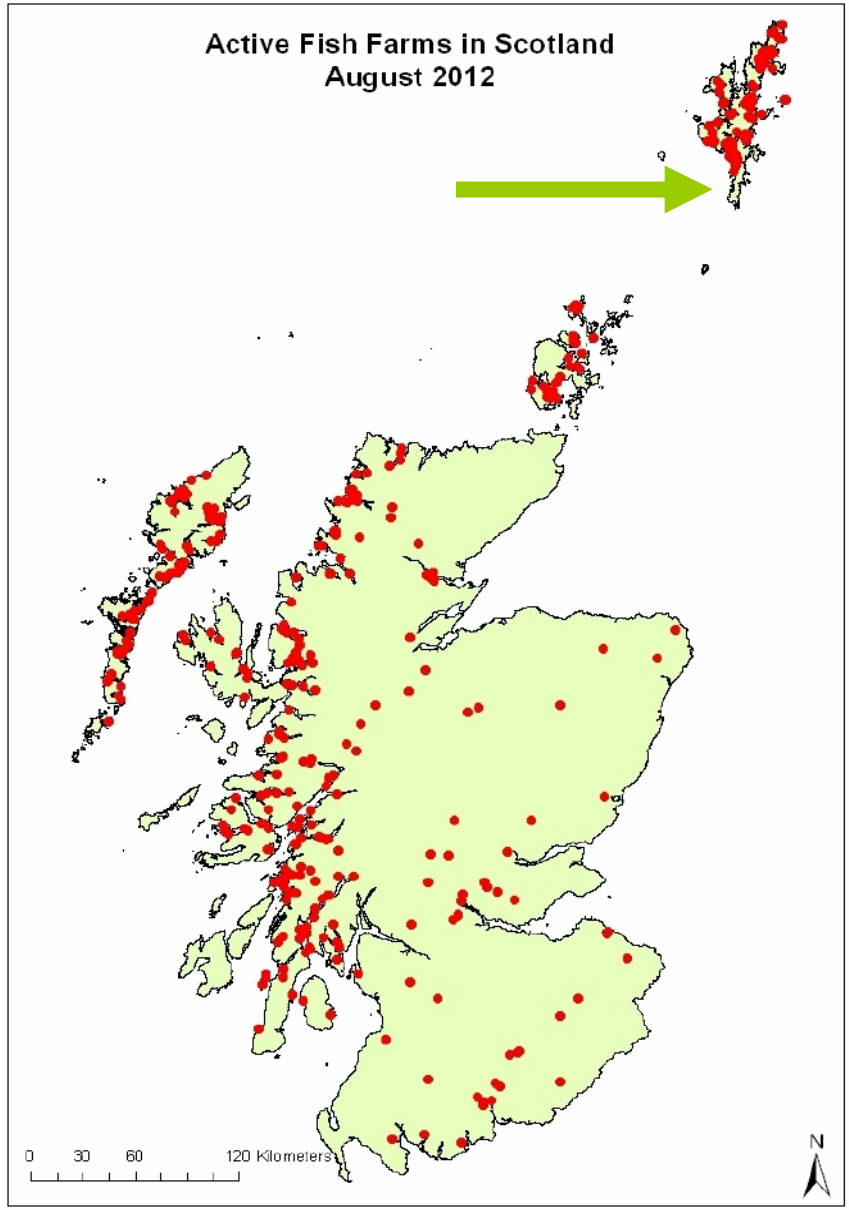
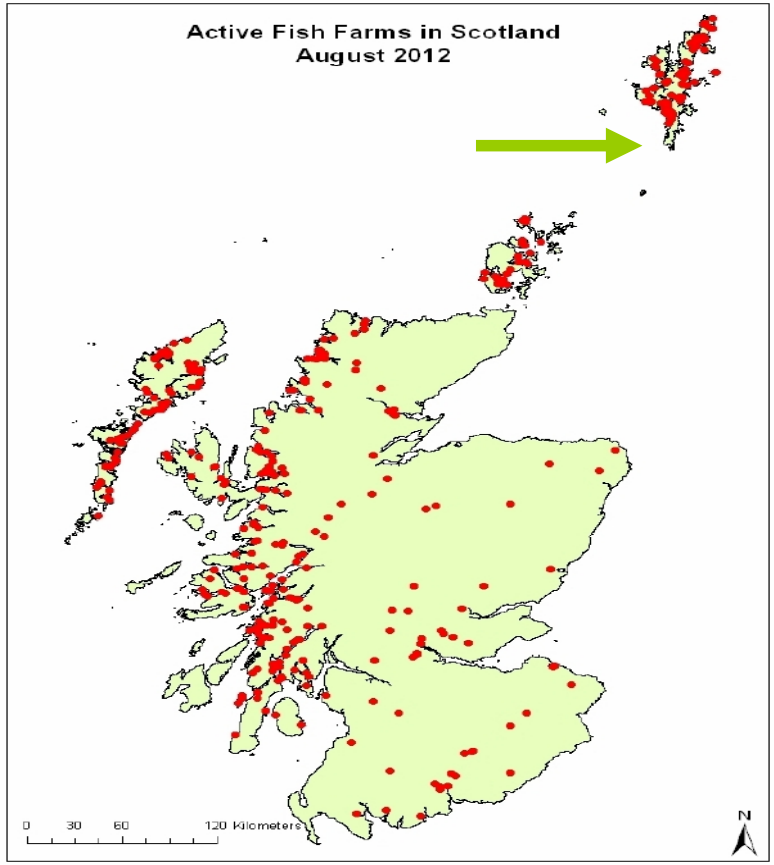
Initial work

- Wild fish survey started in 2009 (SW Shetland)

- Screen wild marine fish for the presence of SAV RNA in an area associated with Atlantic salmon aquaculture (namely with a previous history of SAV infection)



- Provided first evidence of SAV in wild common dab by PCR



- However from these samples it was not possible to culture PD virus

Stonehaven

- New survey at Stonehaven Bay
- Fish caught and moved to Aberdeen
- Water was mechanically filtered and UV irradiated and held in a bio secure area where no infection studies are carried out. Fish were anaesthetised and examined within 4 days of arrival
- Further evidence of SAV in wild fish by PCR; i.e. not associated with fish farming area
- Histological changes not consistent with PD

Wider survey

- Survey extended to 9 additional sites covering the west, north and east side of Scotland from 6 degrees west to 4 degrees east

- Carried out during demersal and the North Sea International Bottom Trawl Survey (IBTS).

Frozen fish

- Sex
- Length

- Checked visually according to ICES standard quality assurance procedures

- Heart, kidney, brain and skeletal muscle placed into individual labelled cryotubes

- Parallel samples also obtained for tissue culture isolation of virus and consisted of heart and kidney from each fish into viral transport medium

Results

- Highest ct values in north-west regions from mainland to Shetland Isles
- No correlation with water depth, sex, length or health status of fish (using ICES guidelines)
- No apparent seasonal variation in number of fish with SAV RNA (only examined in one area)
- We report the first cultured SAV subtype V from a non-salmonid fish, namely the common dab