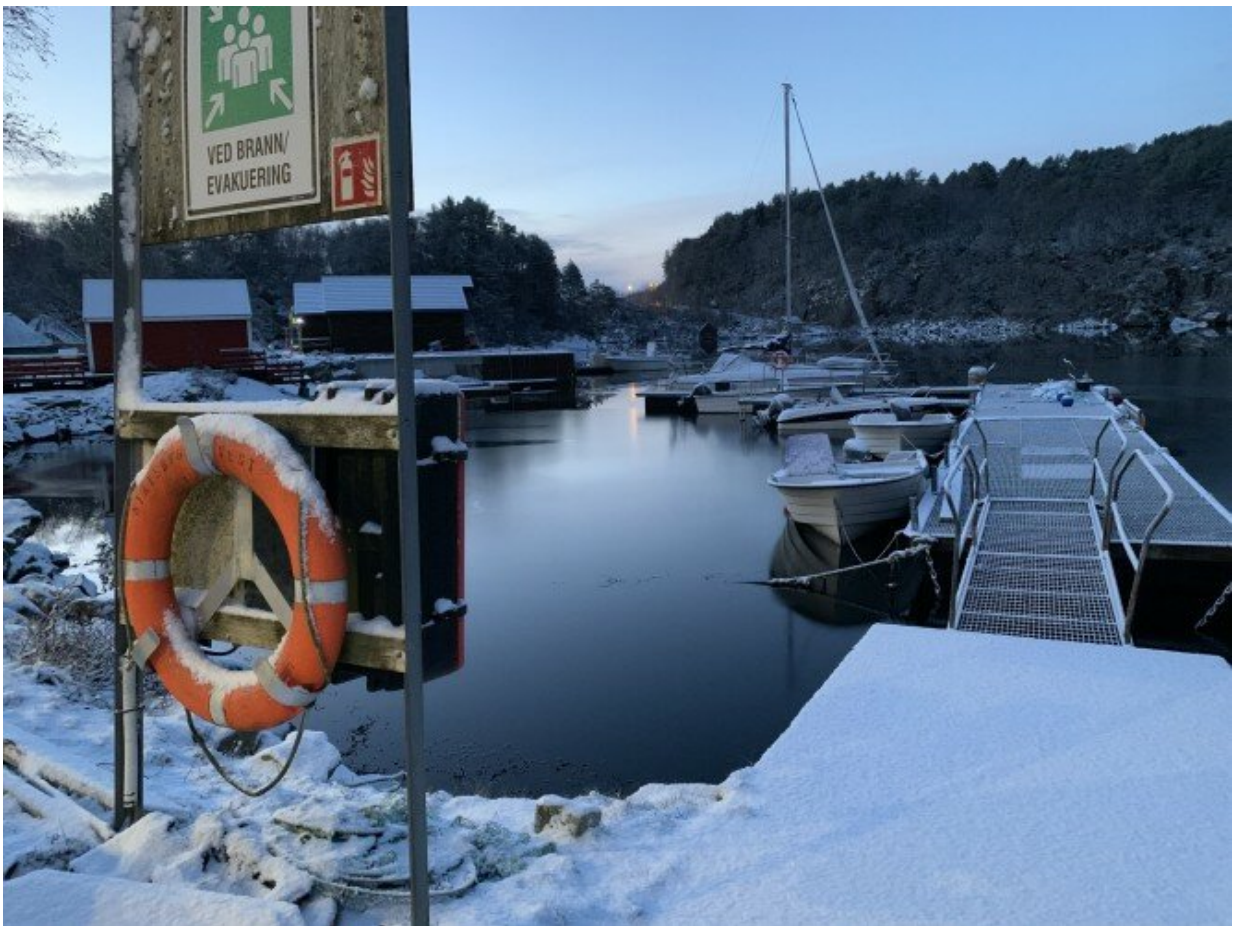


Scientists research impact of oil rig spills on fish

February 12 2019, by Michael Addelman



Credit: University of Manchester

University of Manchester scientists are at the forefront of the fight to

protect cold water fish from the effects of crude oil spills from offshore oil rigs.

Dr. Holly Shiels and Ph.D. student Martins Ainerua are working off the coast of Norway with Dr. Elin Sørhus of the Norwegian Institute of Marine Research to understand how the oil impacts on hearts of cod and halibut.

As the [heart](#) is the first organ to develop in fish larvae its good health is crucial for survival of the animals into adulthood, say the team.

Two projects – known as 'Eggtox' - and 'PW(produced water)exposed', could provide vital information for oil companies who want to construct rigs in parts of the North Sea which are known to be key spawning grounds for these important fisheries.

The team also hope to understand the mechanisms of crude oil toxicity on the electrical and contractile properties of the fish heart.

They have been working in the electrophysiology lab at Austevoll station on the South West coast of Norway, investigating how various oil components affect the electrical activity of the juvenile cod and halibut hearts.

"We know from disastrous crude oil spills like DeepWater Horizon, that components of oil negatively affects hearts of larval and juvenile fish. But it is possible the Produced Water used in [oil drilling](#) – which is released even in the absence of a [spill](#)—may impact fish stocks. And this is especially a worry in areas where drilling occurs in spawning grounds as the eggs and tiny larvae are unprotected," says Dr. Holly Shiels.



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"And this is especially a worry in areas where drilling occurs in spawning grounds as the eggs and tiny larvae are unprotected.

"That is why are studying the impact of a single component of crude oil on the heart, and two of its metabolic derivatives.

"This is important work. A thorough understanding of cardiotoxicity will improve ecological risk assessments and environmental health monitoring."

Provided by University of Manchester

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