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Current scientific interests/activities/techniques:

- Ocean acidification & temperature (multi-stressor) impacts on marine ecosystems
- Carbonate system interactions & feedbacks with biological systems (natural variability & drivers)
- Experimental system design/set-up; carbonate system monitoring; ‘dabble’ in modelling
- Research in temperate (European Seas) and Arctic regions since 2006
- Ny-Ålesund research activities
- High Arctic ice camp experience (logistics & science)

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Science ambitions, future areas for working:

- Winter-time dynamics; full seasonal examination of what physicochemical environment specific organisms actually experience
- Characterize the natural range/variability of physicochemical environment at a regional-local scale
- Response of Arctic vs poleward-migrating organisms to changing environment
- Leads and ice formation/melt associated processes with respect to carbon cycling
- Long-term monitoring; autonomous platforms; linking up biological-chemical-physical monitoring platforms

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Information on current networks, research partnerships, etc:

Current Projects:

• **IUCN Mission Blue 'Ocean Acidification in Arctic Fjords'**. 2013 – 2015 (lead PI)

OA biological responses & fine-scale natural variability of carbon biogeochemistry. Limited carbonate chemistry data for three fjords (fine-scale), & OA experiments on Krill.

• **ESA OA-pathfinders**. 2014 – 2016 (co-PI)

Using satellites as a tool for ocean acidification monitoring: validation and testing algorithms using 4 case studies; Arctic is one case study.

• **TRANSIZZ data collection**. 2015 (co-PI)

Carbonate chemistry, occurrence of biological organisms & their exposure to 'natural' variability

Current Networks & Partnerships:

• **Arctic in Rapid Transition (ART**): early- & mid-career Network

• **Global Ocean Acidification – Observing Network** (**GOA-ON)**: monitoring and observation

• Links to **Canada** (Marine Environmental Observation Prediction and Response (MEOPAR) Network; Universities of Laval, Quebec & Romouski; Department of Fisheries & Oceans)

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Data sets to share/collaborate with:

• Carbonate chemistry for Kongsfjord (already have some collaboration with Agneta Fransson and Melissa Chierici in Tromso)

• Carbonate chemistry from ice-edge north of Svalbard (already have interest in joint work with Adam Ulfsbo, Sweden & Libby Jones NIOZ)

Potential collaborative opportunities (mobility of PhD students/post docs, cruises, funding) :

• EuroMarine funds?

• DTP PhD projects (PML [& BAS] is partner of: GW4+, SPITFIRE, EnvEast)

• Note: PML is a SME for European projects