Student project (can be BSc or MSc level):

Comparative Life Cycle Assessment study of shrimp products

**Background:** The SEAWIN project (seawin.earth), is a five year Formas-funded research collaboration between the The Beijer Institute of Ecological Economics, Stockholm University, Research Institutes of Sweden (RISE), Uppsala University and a number of other international research and national industry partners. The overall project aim is to map the environmental footprint of Swedish seafood consumption and production and identify pathways towards more sustainable seafood consumption. To reach this objective, case studies analysing environmental performance of a number of seafood products that can be produced in a variety of ways, such as shrimp products, will be performed.

**Task description:** One or several shrimp supply chains (depending on interest and time available) will be studied using LCA methodology. Life Cycle Assessment is a methodology for assessment of environmental impacts of products and their supply chains from raw material extraction over production, distribution, use and until waste treatment.

Possible chains to study are demersally trawled Norwegian and Greenlandic northern shrimp (*Pandalus borealis*). The same species is also caught using traps in Norway on an experimental basis and in the US on a commercial basis. The company Vegafish recently started farming of tropical shrimp in a closed system in Sweden (*Penaeus sp.*) and using pilot data from their start could also be an option, Vegafish is one of the industry partners of the project. Data collected in the project will be modelled to be comparable with existing shrimp LCA studies for warmwater shrimp farmed in Asia.

**Qualifications:** A suitable educational background could be environmental, biological sciences, fisheries biology or engineering. Knowledge or interest in Life Cycle Assessment (LCA) methodology is of course beneficial. An open and curious mind helps!

**Time plan:** Flexible, but preferably during 2017-2018, can be scaled up or down from a three-month to a half- or even a one-year research project.

**Location of work:** Preferably in Gothenburg (RISE office at Delsjömotet), but project partners are located in Lund (RISE) and Stockholm (KVA) and can also host the student(s).

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