Title
Photobacterium phosphoreum – prediction of growth and spoilage activity in lightly preserved aquatic food

Type of project and ECTS
30 ECTS M.Sc.-thesis-project within the AQFood programme

Short description
The aim of this project is to develop a predictive model to facilitate the development and realistic shelf-life determination for new lightly preserved aquatic food products.

Project description
Photobacterium phosphoreum is an important spoilage micro-organism and its growth to high concentrations results in sensory spoilage of various fresh marine fish, particularly products that are packed in vacuum or modified atmospheres. Fortunately, realistic shelf-life of these products can be established by using available predictive models and software to determine growth of *P. phosphoreum* (http://sssp.dtuaqua.dk). Development of various variants of marinated aquatic food with slightly reduced pH and added organic acids is interesting but it remains laborious and costly to determine a realistic and safe shelf-life of these new products. This project will expand available predictive models for *P. phosphoreum* to predict its growth and the sensory shelf-life of lightly marinated aquatic food. Available predictive models will be used to evaluate the safe shelf-life of the new products. The project includes experimental studies with microbiological and chemical analysis of the new products, sensory evaluation and predictive microbiology modelling.

University and Supervisor
Technical University of Denmark
Paw Dalgaard, Professor
Division of Industrial Food Research
National Food Institute (DTU Food)
Søltofts Plads, Building 221
2800 Kgs. Lyngby
Direct +45 45252566
pada@food.dtu.dk

Industry collaboration
This project is carried out in collaboration with Royal Greenland Seafood Ltd.