Project 6.1. Monitoring all SEAFOODplus projects for new variables to the vocabulary.

The traceability vocabulary being developed with in SEAFOODplus project 6.1 Methodology is the key for the practical use of the existing Tracefish standard (**www.tracefish.org**). When implemented the industry has easy access to the documentation of the most important variables in the standard and a translation of the variables into the most important languages. The vocabulary is continuously updated to ensure that the latest results coming from other RTD pillars in SEAFOODplus project will be available for the industry in practice and in addition facilitate transfer of the resulting new information elements to the consumer/end user. An important task in project 6.1 is to monitor all the ongoing projects in whole SEAFOODplus for new variables to be included in the vocabulary.

Based on the annual report 2006 two new variables have been identified:

Morganella psychrotolerans and taurine.

Morganella psychrotolerans is a new bacterium isolated in RTD pillar 3.4 BIOCOM from cold-smoked tuna that can grow and produce toxic concentrations of histamine by decarboxylation of histidine at temperatures as low as 2°C. Histamine is normally present at level less than 0.1 mg per 100 g of fish. In contrast, samples of fish that produce poisoning contain histamine levels of at least 20 – 50 mg per 100 g of fish.

Taurine is a non-essential amino acid primarily found in the skeletal muscles and central nervous system, in the heart muscles and in the white blood cells. Taurine is a by-product of cysteine metabolism, and human adults can produce taurine themselves from the amino acids cysteine and methionine and vitamin B6. Taurine is important for the development of the brain, the retina of the eye, and the liver of the newly born. Taurine is a key ingredient of bile, which in turn is needed for fat digestion, absorption of fat-soluble vitamins as well as the control of cholesterol serum levels in the body. The positive effect of taurine on reduction of serum cholesterol was supported by the study of the research group of Edel O. Elvevoll RTF pillar 4.4 CONSUMERPRODUCTS. However, the household preparation influences the composition and nutritional value of seafood products. Boiling and deep-frying was found by Narcisa M. Bandarra and co-workers RTD pillar project 1.2 YOUNG to lead to a loss of at least half of the taurine content. Ronan Gormley and his

research group RTD pillar project 4.4 CONSUMERPRODUCTS has demonstrated that it is possible to make taurine-enriched fish with out effect on the taste and which is stable during storage and preparation. Hence it is possible to make seafood products capable of suffice different consumer demands.

Several other very promising and interesting results has been reported in the periodic activity report 2006 for the integrated project SEAFOODplus. Issues with relevance for the vocabulary such as the nutritional effects of n-3 fatty acids and protein to promote health and prevent diseases in young European families of (RTD pillar 1 YOUNG) and the protective effect of seafood on heart disease risk (RTD pillar 1 METAHEART), will be followed closely as the projects develop.

Both variables can in the future be interesting information for the rest of the chain. By including them in the vocabulary it is possible to transfer them between links in the chain from vessel/farm to retailer/consumer in uniform format which cannot be misinterpreted by others in the chain and which can be transferred electronically with minor costs. The vocabulary will be updated in 2007 and new information made available on the SEAFOODplus website.

Basic values of the variables for the Vocabulary

Morganella psychrotolerans
Unit: CFU/gram
Min. value: 0
Max. value: 10^8

Taurine
Unit: mg / kg wet weight
Min. value: 0.00
Max. value: 9000.00