



## **STSM Scientific Report**

### **1. Purpose of the STSM**

The objective of the STSM was to carry out experiments on the cryopreservation of European eel (*Anguilla anguilla*) sperm, including the evaluation of fresh sperm quality, cryopreservation of sperm using various methods and evaluation of the quality of cryopreserved sperm.

### **2. Description of the work carried out during the STSM**

Sperm was collected every day from 12 different males. Motility of fresh sperm was evaluated following activation with artificial sea water using computer-assisted sperm analysis (CASA). Cryopreservation of sperm was carried out using the methodologies developed previously by the two laboratories in 0.25 and 0.5-ml straws. An additional experiment was carried out on the ideal thawing temperatures and durations. Fresh and cryopreserved sperm was stored for DNA extraction to be carried out later by colleagues at INRA in Rennes, France.

### **3. Description of the main results obtained**

About 3-4 ml of sperm was collected from each fish every day. The motility of fresh eel sperm was in the range of 50-80%. There was a noted difference in the post-thaw motility of eel sperm cryopreserved using the methods of the Spanish and Hungarian laboratories. The experiment on the ideal thawing conditions revealed that best post-thaw motility was observed when samples were thawed in a 25 °C water bath for 3-5 seconds.

### **4. Future collaboration with the host institution**

The possibility of the host institution using the cryopreservation method developed by the Hungarian partner was discussed as were possibilities of hosting the Spanish partner in the next STSM call in Hungary and Slovenia.

### **5. Foreseen publications/articles resulting or to result from the STSM**

Publication on the blog of the host: <http://www.acuiculturaenvalencia.blogspot.hu>, possible later publications to be discussed by the partners.

### **6. Confirmation by the host institution of the successful completion of the STSM**

Dr. Juan F. Asturiano (Instituto de Ciencia y Tecnología Anima., Universitat Politècnica de València, Valencia, Spain) certifies that Dr. Ákos Horváth (Department of Aquaculture, Szent István University, Hungary) has completed a Short-Term Scientific Mission awarded by the COST Action FA1205 between November 18-23, 2013.

Signed: Juan F. Asturiano

Signed: Ákos Horváth