## IP(10)11

Aquaculture, Introductions and Transfers and Transgenics Focus Area Report

## EU-Denmark

## Focus Area Reports (FARs) on Aquaculture, Introductions and Transfers, and Transgenics; Denmark

In Denmark there is and has never been a commercial aquaculture production of Atlantic salmon and no production in saltwater, so no lice problem.

Introduction of foreign salmon strains is not allowed in Denmark; only local wild strains are used in production for liberation of fish in rivers, and it is not allowed to make crosses between the local wild strains.

The present production of salmon takes place at two professional hatcheries in Jutland run by anglers. One hatchery recirculate all the water (tap water) and the other takes water from a little brook and recirculate the water. Both hatcheries have a minimal use of water, and both hatcheries have high veterinary status and controlled annual by the veterinary authorities for VHS and BKD. No salmon are able to escape from the hatcheries.

The brood stocks are taken (annual electro fishing in autumn) from four rivers (Stor $\AA$ Akjern $\AA$, Varde $\AA$ and Ribe $\AA$ ) with wild salmon and from one river (Guden $\AA$ ) with only liberated smolt from Stor Å strain and Ætran strain (West Sweden) but introduced about 15 years ago and no reintroduction takes place to day. Based on genetic advice an optimal numbers of spawners are taken from each river to be sure that no genetics are lost; and during stripping of the spawners guidelines secures optimal genetic off springs. The strains are kept separated in the hatcheries and off springs and stripped spawners are only released in the same original rivers. Four other original salmon rivers where salmon is now extinct receive a minor part of salmon from the Skjern Å strain.

The total production in 2009 was: $1 / 2$ yearling 50,000 , 1 year old $245,000,1$ year old smolts 97,000 and 2 year old smolts 11,000.

A certain number of fish are marked (group marked) before liberation in order to calculate return rate, mortality and size of the spawning run of wild and liberated salmon.

