

IP(10)6

***Aquaculture, Introductions and Transfers and Transgenics
Focus Area Report***

EU-Germany

Focus Area Report on Aquaculture, Introductions and Transfers, Transgenics

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1. Introduction

As an introductory remark and in terms of clarification it should be noted that the questionnaire provided to structure the *FAR on Aquaculture, Introductions and Transfers, Transgenics* is only partly applicable to Germany. There are no salmon farms operating in Germany which is why the use of transgenic salmon is not an issue either. However, hatcheries do exist for the purpose of re-introducing Atlantic salmon into selected rivers.

As depicted in the Implementation Plan IP (07)21 all wild salmon stocks were extinct in German rivers by the middle of the last century. Thus, in the course of ongoing restoration programmes salmon of foreign origin have been and continue to be transferred to German rivers. Hatcheries either breed eggs imported from other European countries (e.g. Denmark, France, Ireland, Scotland, Sweden) or eggs gained from returning salmon. Some hatcheries succeeded in maintaining a brood stock of returnees. The solitary aim of all these activities is to produce stocking material.

The reintroduction programmes have to be regarded as a special case of restoration or transfer. The habitats chosen for stocking with salmon are part of historically documented salmon rivers. They are either known as having been inhabited by salmon in former times or they are regarded as a habitat suitable for spawning or for juveniles. Although in the latter case salmon were not documented historically, it is very likely that salmon once was abundant since salmon are historically proven in the main stream and main tributaries. All water courses used for stocking are of at least satisfactory and in most cases good water quality.

All material used for stocking is of foreign origin, since there are not even relicts of the original stocks left. This means, that technically speaking all these activities are an intended transfer of foreign salmon stock material into former habitats. On the other hand we like to use the term restoration for the reintroduction programmes. The stocking material belongs exclusively to the same species, namely *Salmo salar* and has its origin in the NASCO convention area. It is, when possible, chosen from populations from neighbouring habitats. The aim is to get an adaptation of the introduced strain to the habitat. The amount of stocking material that is gained from returnees is steadily increasing. The aim is to become independent from foreign material and to establish a new stock that recruits itself from returnees that are adopted to the new habitat. Therefore spawning material is taken from returnees and some of the returnees are reconditioned. In addition some progeny of returnees are held in captivity and their progeny is released in the wild. The first results in that direction are promising, so that in the case of the Rhine people are already talking about a new Rhine strain.

From the administrative point of view the exclusive legislative power to regulate aquaculture is assumed by the federal states (*Bundesländer*). Actions related to reintroduction programmes are taken by federal states' authorities, river specific organisations and NGOs as

stated in the Implementation Plan. However, legislation on animal health and welfare is under the competence of the Federal Government. The EU Council Directive 2006/88/EC on animal health requirements for aquaculture animals and the Federal Law on fish epidemics (“Fischseuchenverordnung”) represent the legal framework for the fish health services (Fischgesundheitsdienst, FGD) of the federal states. According to this law each aquaculture facility that breeds salmon is subject to authorisation which entails obligatory inspection.

2. Implementation of the Williamsburg Resolution

There are only some aspects of the questionnaire for this focus area report that apply on salmon aquaculture exclusively for stocking in reintroduction programmes. Since there are no local stocks left, there are no risks for local salmon populations. Regarding the implementation of the Williamsburg Resolution only some points apply to Germany.

2.1. – 2.4.3. Not applicable to Germany.

2.4.4. Each Party shall take measures ...to minimize the risk of disease and parasite transmission between all aquaculture activities, introductions and transfers and wild salmon stocks.

The legal basis for dealing with hygiene measures is being described above. In the case of salmon, three infectious diseases (ISA, VAS, IHN) are currently known to occur in Germany. Spread of disease and parasites might also harm other salmonids. Therefore veterinary measures are taken before the stocking material is released. First of all, material from abroad has to have a health certificate that states that the material is free of diseases or parasites. For example fish from the DCV- Denmark’s Centre for *Vildlaks* that is transferred into the tributary Nuthe is certified. In Saxony fish eggs are held 5 months separately before the brood is released.

The aquaculture facilities in Germany are regularly, at least two times a year, examined by the fish health services (FGD) of the federal states. In the case of salmon these facilities take purchased material into aquaculture before release or take material from the wild or their offspring. Measures to fight disease and parasites as stated by the federal states are:

- annual disinfection of the entire aquaculture facilities,
- regular check of the facility via FGD,
- regular health checks of material via FGD before leaving the aquaculture facilities,
- disinfection of transport vehicles before transport,
- keeping species from the wild separately,
- treatment of water in the facility with UV light,
- prophylactic treatment of fish with peracetic acid or,
- prophylactic treatment of eggs with Actomar K30.

2.5. Transfers and reintroductions in Germany are done with genetic material from the Commission area which is assumed to be as similar as possible to the extinct populations and has therefore to be regarded as transfer of indigenous anadromous salmonids.

2.6 - 2.12. Not applicable to Germany.