Abstract

A 'Meuse Salmon 2000' project aiming at restoring an Atlantic salmon run in the Meuse River basin was scientifically initiated in 1983 and practically started in 1987 as a contribution of Wallonia to the European Year of the Environment. In relation to this programme, several dams (3-8 m high) obstructing the canalized Meuse in Belgium and the Netherlands have been fitted with modern fishways in order to defragmentate habitat and restore the free circulation of diadromous (Atlantic salmon, sea trout, eel) and potamodromous migratory fish species. Since 1990, a detailed investigation has been carried on at the Visé-Lixhe navigation dam to register fish population ascending a small fish-pass built in 1980 at the same time as the dam) and a big one constructed in 1998 to allow upstream migration of large salmonids. Over the period 1990-2004, around 500.000 fish (19.000 kg) have been trapped in these fish-passes used as a monitoring system. They belong to 36 species (28 autochthonous and 8 allochthonous). Among these species we found several rare and/or endangered species such as Atlantic salmon (return of 15 adult fish in 2002-2003 from reintroduction stocking in the Ardennes), nase, river bleak, barbel, minnow, bitterling, wild carp, European catfish (Silurus glanis) and asp (Aspius aspius), a new alien species. Furthermore, this study revealed a dramatic 90 % decline of the number of upstream migrating yellow eels.