

EELBASE: A 4-years research proposal submitted to the Belgian Research programme "Science for a Sustainable Development"

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EELBASE, Progressive extinction of the eel: biological basis for a national recovery plan



Electrofishing for eel densities

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Abstract

The European eel (*Anguilla anguilla* (L.)) is a widespread species in decline and current fisheries are considered outside sustainable limits. The European Commission has proposed that the primary instrument for management of European eel should be the development by Member States of "Eel Management Plans" including putting in place monitoring actions for the EU Data Collection Regulation. A research project proposal has been submitted to the Belgian Research programme "Science for a Sustainable Development". The project is entitled "Progressive extinction of the eel: biological basis for a national recovery plan" and has the acronym "EELBASE". The objective is setting the scientific base for the development of the national Eel Management Plans by developing an eel database (EELBASE), designing a Belgian eel restocking programme and collecting new data about the key factors affecting the eel stocks throughout Belgium. Field studies in selected basins will focus on ecological aspects including habitat evaluation of yellow eel, silver eel escapement and impact of turbines and pumps. Another objective is to evaluate interactions between the different environmental and physiological parameters by means of an extensive assessment of physiological traits of eels of polluted and unpolluted sites. For this, several aspects of health and condition of local pre-silver and silver eel populations will be studied (a series of physiological parameters, quality of gametes, parasitological and viral agents, ...).



Glass eel

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Research actions

In these project a number of research actions have been outlined, to contribute to the development of a national eel management plan.

1. EELBASE database

The status of eel in Belgium will be assessed based on existing distribution data and analysis of causal relationships between the distribution data and environmental factors.

2. Trend analysis

Existing long time monitoring series for eels from the different life stages could fit into the management plan but will be reviewed with respect to DCR requirements. A methodology for the quantification of the silver eel population leaving river catchments will be defined.

3. Physiological condition of pre-silver and silver eel

The impact of bioaccumulation of contaminants on the quality (condition) of silver eels leaving the system will be studied with special emphasis on reproductive processes (gonadal development, hormonal status).

4. Review of eel restocking practices

Restocking practices as a tool in species restoration will be critically assessed.

5. Field studies

The capacity of glass eel for passing migration barriers will be studied.

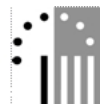


Anguilla anguilla (L.)

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More information: <http://www.inbo.be/eelbase>

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