Migration patterns of various fish species in the Rhine delta based on telemetric studies

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Hae

Contents









Methods

• Capture of fish by professional fishermen

• Tagging with a radio tag (transponder type)

• Release of tagged fish

Detection of fish at fixed stations.

In all studies the Nedap Trail System was used

mise.

Nedap Trail System



Detection stations



Results: sea trout



Results: sea trout

Results: ide

Large individual variation in spatial use patterns. How representative are "samples" for entire population Rigid long-term individual patterns of adults Does learning/experience play a role in shaping these Strong fidelity to spawning sites 120.

Results: eel

 Combined mortality caused by 2 hydro-electric power stations: direct 6 %, delayed 9 %.

 Combined fisheries mortality 22% at minimum (fyke nets + anchored stow nets)

 Unexplained mortality 25 % (unreported captures + natural + experiment induced)

 Fraction of silver eels successfully reaching the North Sea: at least 30 %, presumably 40 50 %

Vac.

Conclusions

Knowledge of migration patterns is important for the management of fish populations and reintroductions
to identify their habitats
to detect obstacles in migration routes
to improve passage of these obstacles (e.g. sluices in the Haringvliet dam)

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Conclusions

Knowledge of migration patterns is important for the management of fish populations and reintroductions

 International co-operation is a necessity for studies on fish migration in river basins situated in several countries

 To recognize the importance of local initiatives for improvement of fish stocks

---- • For tuning of budgets, methods & manpower

To increase the research efficiency

Conclusions

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International co-operation is a necessity for on fish migration in river basins situated in second secon

The Nedap Trail System has proven to be a helpful tool for studies on long distance migrating fish in rivers functioning as shipping routes

• studies of unlimited numbers of fish

o network

O low labour costs

