

Absence of pan-European cormorant management puts fishery and environmental policy goals at risk

- > EU policy goals
- > Cormorants impacting policy goals
- > What is going wrong?
- > Call for Action!



EU policy goals

>CFP: Sustainable food production in aquaculture

≻WFD: Healthy waters across Europe

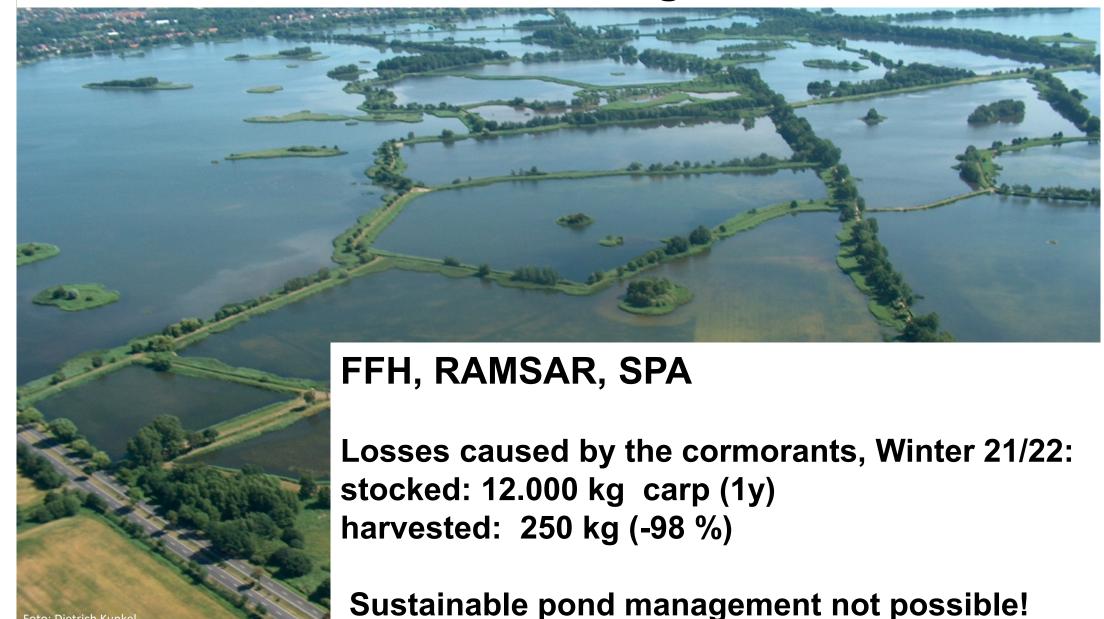
FFH: Favourable conservation status for habitat types and species

Cormorants impacting EU policy goals

- **▶CFP**: Sustainable food production in aquaculture
 - ➤ Loss of valuable aquatic food production



"Peitzer Teiche", Brandenburg, DE, 1060 ha area





Cormorants impacting EU policy goals

- ➤ CFP: Sustainable food production in aquaculture
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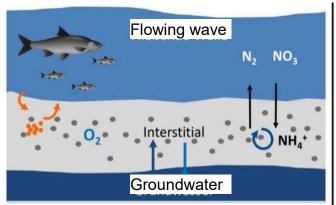
- **≻WFD**: Healthy waters across Europe
 - >Loss of ecosystem services due to unmanaged predation



Loss of ecosystem services due to unmanaged predation

Impacts in the water body

Habitat function Turnover function Clear water and clean bottom





Flowing wave

+N, +P

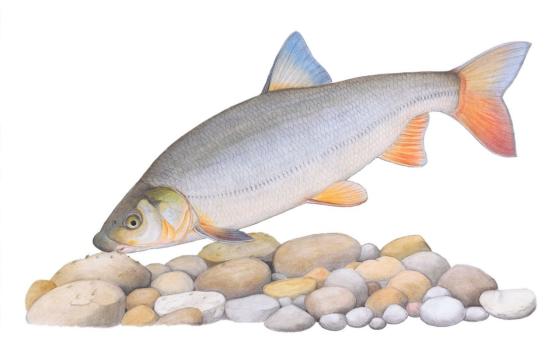
NH₃

NO₃

Interstitial

Groundwater





https://www.argenister.de/fische-als-oekosystemdienstleister/

Turbid water and algae bottom



Publications

Wetjen, M., Hübner, D., Seehausen, O., & Schulz, R. (2020). Genetic diversity of endangered Chondrostoma nasus in the River Rhine system: Conservation genetics considerations on stocking and reintroduction. *Knowledge & Management of Aquatic Ecosystems*, (421), 25.

Hübner, D., Gerke, M., Fricke, R., Schneider, J., & Winkelmann, C. (2020). Cypriniform fish in running waters reduce hyporheic oxygen depletion in a eutrophic river. *Freshwater Biology*, 65(9), 1518-1528.

Gerke, M., Hübner, D., Schneider, J., & Winkelmann, C. (2021). Can top-down effects of cypriniform fish be used to mitigate eutrophication effects in medium-sized European rivers?. *Science of The Total Environment*, 755, 142547.

Cormorants impacting EU policy goals

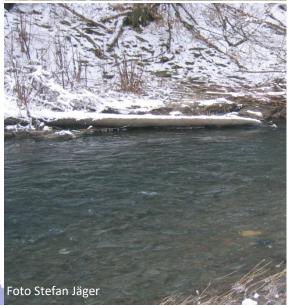
- ➤ CFP: Sustainable food production in aquaculture
 - ➤ Loss of valuable aquatic food production

- >WFD: Healthy waters across Europe
 - >Loss of ecosystem services due to unmanaged predation

- ➤FFH: Favourable conservation status for habitat types and species
 - ➤ Loss of biodiversity







Freshly caught grayling by a cormorant, Winter 2010

When the photographer appeared, the cormorant had spat out the fish.

location: German low mountain range water for which there is no historical evidence of the cormorant.

Breeding colony, Reservoir Schwerte-Geisecke, DE







1997 2003 2005



What is going wrong?

TRANSITION OF THE PROPERTY OF

Cormorants are protected by EU Birds directive



European Wild Birds
Directive 2009/147/EC



Directive allows Member States to make exceptions



- Only outside of natura 2000 sites. Time and geographically limited.
- Subject to change after elections
- Constant legal fight with bird protection organizations

16 Federal states



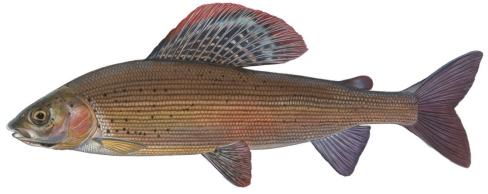
Responsibility belongs to federal states

Member State

Breeding areas are detached from damaged areas



- Cormorant breeding areas without major impact on local fish population
- Birds migrate to warmer areas during winter
- Massive impact (up to total loss) in other areas due to feeding cormorants





Call for Action!

➤ Establishment of an European Cormorant Managementplan based on:

- ➤ Pan-European **population model** to ensure
 - >stable cormorant population
 - >stable fish populations

