



EEP Proposal for:

Common Family Name: Perches
Scientific Family Name: *Percidae*

Prepared by

Name(s): Freshwater teleost TAG
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1. Contact information

Contact details of proposed EEP Coordinator

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2. Taxonomy information

Taxonomy of the species

The family of the *Percidae* (Perches) includes 239 species within 11 genera in the Northern Hemisphere (family information from FishBase, www.fishbase.se).

During the workshop of the EAZA Freshwater teleost TAG in 2019, for the *Percidae*, the species from North America will not fall under the RCP's remit (there is ongoing conservation work by the USA for their native darter species and in range conservationists are considered to be better situated to look after those species than the EAZA region). There are 204 species in North America (USA and Canada) and 6 in Mexico, with 7 CR, 18 EN, 30 VU and 17 NT (source, IUCN Red List).

17 species can be found throughout Europe, out of which three are CR and one NT (see table 1).

Table 1: Status of four European species from the *Percidae*-family (source IUCN Red List and Species360)

Scientific name	Status	Held in zoos
<i>Zingel asper</i>	CR	735 alive
<i>Gymnocephalus ambriaelacus</i>	CR	X
<i>Romanichthys valsanicola</i>	CR	X
<i>Percarina demidoffi</i>	NT	X



Nine European species can be found in the annexes of the Bern convention (Council of Europe, 1979, “Convention on the conservation of European wildlife and natural habitats”, see table 2).

Table 2: Species listed in the Bern convention (source: Freyhof, J. and Brooks, E. 2011. European Red List of Freshwater Fishes. Luxembourg: Publications Office of the European Union)

Protected species	European		Bern Convention Annexes
	RL	EU27 RL	
<i>Gymnocephalus baloni</i>	LC	LC	III-II; IV
<i>Gymnocephalus ambriaelacus</i>	CR	CR	
<i>Gymnocephalus schraetzer</i>	LC	LC	III-IV; V
<i>Romanichthys valsanicola</i>	CR	CR	II; IV
<i>Sander volgense</i> (as <i>Stizostedion volgense</i>)	LC	LC	III
<i>Zingel asper</i>	CR	CR	II-II; IV
<i>Zingel balcanicus</i>	DD	DD	II
<i>Zingel streber</i>	LC	LC	III-II
<i>Zingel zingel</i>	LC	LC	III-II; V

Except the Apron, *Zingel asper*, none of the threatened European species is listed in the ZIMS Species 360 database (as of the 21.11.2021, table 1).

3. Identified roles

Identified role(s) description

Insurance: This direct conservation role contemplates the possibility to maintain long-term *ex situ* populations to preserve options for the future. The *ex situ* populations are a potential future source to build up (long-term) populations for reintroductions.

The *Percidae* are facing different threat types, with “natural system modifications” (for 90 species) and “pollution” (for 83 species) being the most common (IUCN Red List website, www.iucnredlist.org).

Population restoration: This direct conservation would focus on re-establishing the species to part of its former range from which it has been extirpated. This role implies providing disease-free, behaviorally competent and genetically valuable individuals for release into the wild. Of course, this would imply to ensure that any reintroductions are done according to the IUCN Reintroduction guidelines and to avoid any releases that may cause hybridization in the wild.

Programme decision statement

EEP. Proactive management and coordination along a clear strategy among all the holders will be required to deliver the EAZA contributions to the *ex situ* management roles selected



for *Percidae*.

Therefore, the TAG recommends to actively manage it as EEP.

4. Programme participants and governance

EAZA institutional scope

We are planning to involve EAZA members in this EEP.

Non-EAZA holding institutional scope

- EAZA population/community is the dominating driver of the EEP and any non-EAZA Members will occasionally join and are not integral to the structure of the EEP.*
- In addition to EAZA, there are other structural/equal drivers of the EEP (e.g., World Pheasant Association, ...). Please describe.*
- A larger initiative exists and the EAZA population is a small part of this (e.g., GSMP, ...). Please describe.*

Additional information: As some of the *Percidae* are important for the fishing industry, fish farms might also play a role in the *ex situ* conservation.

Essential non-EAZA partners not holding animals

As not many species within the family of *Percidae* are kept in zoos and aquariums, the founders for an *ex situ* program are most likely going to be wild-caught. Therefore, Governmental bodies and NGO's are likely to be involved in this EEP.

Members of the EEP core group (Species Committee + non-voting members)

Currently there is no committee regarding this family but there are plans to make one in the near future.

List the EEP core group members (names and institutions) (if already known): Species Committee members, Advisors, others.

This point will be discussed at the next meeting of the EAZA freshwater teleost TAG.

Collaboration with EAZA Working Groups and Committees

There will be collaboration with other freshwater teleost EEP and the EAZA Conservation Committee, if possible. Additionally, the EAZA Biobank working group could play a crucial role in the future as biobanking plays an important for the conservation of certain species.



Once more concrete projects are in place, the EAZA Reintroduction and translocation group will be included in the discussions and planning.

5. Programme characteristics

The detailed programme characteristics, goals, objectives and management strategies to fulfil the roles and goals of the EEP will be developed at a later stage as part of a Long-Term Management Plan (LTMP). The questions below are intended to help paint a rough view of what is currently intended/expected for the general EEP programme characteristics.

As we are currently only in the preparation phase and no species have been selected for *ex situ* conservation, this section can only be answered partially.

Our goal will be to apply the “One Plan Approach” and include all relevant partners for the planning of an *ex situ* conservation of a member of the Perch-family. We will keep track on the research of *Percidae* and include new findings in future discussion within the EEP and follow the IUN *ex situ* guidelines.

In this family, a project funded by the European Commission (LIFE apron 1998-2001 and LIFE Apron II 2004-2010) has been working with the *Zingel asper*, followed by the “plan national d’action en faveur de l’apron” 202-2016 and the current activities under the “plan d’action” which are going to take place from 2020-2030. Between 2006 and 2017, a total of 26’000 juveniles bred in captivity have been released in France (see also the project webpage <http://www.aprondurhone.fr/>).

- *What is the anticipated duration of the programme?*

As this EEP includes a whole family, the programme will be long-term.

- *What is the anticipated likelihood and time scale of the use of the EEP population for restoration in the wild (reintroduction, reinforcement, etc.)?*

For the time scale, we will be able to estimate this after the selection of species from the family of *Percidae*.

- *Are some or all the individuals within this EEP intended to be held in specialist ex situ centres in the species’ native range? Specify*

This EEP will focus on European species, out of which four species are considered as CR or NT (see table 1). All of these have a defined range and therefore it is most likely that a future centre will not be within the native range of the relevant species.



- *Is it expected to be necessary that the whole population, or a certain proportion thereof, will need to be held off exhibit in order to fulfil the roles of the programme? If yes, please explain. (this question does not refer to the temporary housing of individuals off exhibit for space reasons)*

In order to reinforce existing populations, we expect this to be applicable for some of the species that are endangered.

Natural system modifications are listed as a threat for 7 out of the 14 *Percidae*-species in Europe (source: iucnredlist.org). Some species only have very limited geographic ranges and therefore a population restoration role might apply for several species within this EEP.

- *Does a part or the whole of the EEP population need to be held in bio-secure facilities? And/or are there known diseases that have an above average effect on fulfilling the roles of the EEP?*

This is not expected

- *What is the expected estimated number of individuals and institutions required to fulfil the selected roles? (this question will be answered in detail during the LTMP session for the taxon, but if some indication of scale is clear already, this should be stated here)*

For freshwater fish species, 98.4% of the wild population's genetic diversity could be maintained with 30 founders (source "Background material before planning your management strategy with the EAZA Population Management Centre for the Freshwater Teleost EAZA Ex situ Programmes", Version 2: 7 June 2021). Once a species is selected, the ideal/optimal founder population will be discussed with PMC.

- *Is this EEP intended to include rearing of wild eggs/young (i.e. head-starting)?*

We do not expect to include rearing of wild eggs/young.

- *Is this EEP intended to include ex situ breeding?*

Yes, *ex situ* breeding will be an important pillar.

- *Is there likely sufficient expertise for this, or a model, taxon to achieve the roles of the programme and provide conditions for good welfare? Please indicate if Best Practice Guidelines already exist and if yes, include publication date.*



The current holders have experience with keeping and breeding this family. No BPG has been published yet.

- *Will (non-)breeding and transfer recommendations be issued? If yes, with what frequency? (naturally problems will need to be solved throughout the year, but with what frequency will recommendations be issued for the whole population at once)*

Yes. As the species in this family will be group managed, the frequency will be determined by the new guidelines being created for this type of management by the Group Management study group and the EAZA population biologists, in cooperation with the TAG.

- *Do you anticipate that the EEP population will be (largely) closed or will there be regular planned additions of individuals? In case of the latter, will this be for genetic and/or demographic reasons and what will be the source (other ex situ sources and/or from the wild)?*

We do not expect regular additions of individuals.

- *Do you expect genetic and demographic management in this EEP to be individual and/or group-based?*

The management in this EEP will be group-based.

- *Do you expect genetic management in this EEP to be based on pedigree analysis, group history analysis, and/or molecular genetics?*

Group history analysis and perhaps molecular genetics on a periodic basis to determine the level of inbreeding.

- *Do you anticipate, or proactively plan for, biobanking and/or assisted reproduction to be key components of this programme?*

We are planning on biobanking of specimens.

- *Do you anticipate certain national or international legislation to form a particular hindrance (more than average) to achieving the roles of your EEP (e.g., CITES, BALAI, governmental ownership, etc.). If so, explain how.*

No species in the family of *Percidae* is listed in the CITES appendices. The council Directive 92/65/EEC of 13 July 1992 (BALAI) does not apply to fishery products (including live fish).



- *Are there any other issues/plans related to in situ conservation support that you feel should be mentioned and are not evident from the role description of the EEP?*

No

- *Is there a research component/aspect to the EEP that is expected to have important consequences for the design of the EEP programme (e.g. housing and husbandry of a significant proportion of the population, etc.)? If yes, explain.* No.

No research component/aspect is expected for the *Percidae*.

- *Do you anticipate there to be any sizeable political, social, or public conflicts of interest related to the EEP programme and how do you plan to deal with them?* No.

No, we do not expect any conflicts of interest.

- *Any important additional programme characteristics that you would like to mention?*

This is a family-based EEP.

6. References (if any)

Weissenbacher, A., Zimmerman, B., Aparici Plaza, D., Fienieg, E., Hausen, N. (eds.) 2020. *Regional Collection Plan –EAZA Freshwater Teleost Taxon Advisory Group– Edition One*. EAZA Executive Office: Amsterdam.

Freyhof, J. and Brooks, E. 2011. *European Red List of Freshwater Fishes*. Luxembourg: Publications Office of the European Union.