

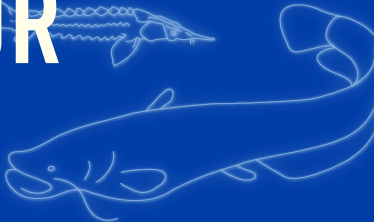
Spot &  
Identify

60 Danube  
Fish Species

**JOINT  
DANUBE  
SURVEY 4**



# DISCOVER OUR DANUBE FISH





# FISH OF THE DANUBE

## IT IS IMPORTANT TO KNOW OUR DANUBE FISH SPECIES

The more than 70 species of fish in the Danube are well adapted to the specific environment of aquatic ecosystems. Some species in the Danube live near the bottom of the river, while others prefer to be in the shelter of water plants near the banks, swim in fast-flowing waters, or prefer slow-flowing zones. Different species have different sizes and diets, and different migration abilities and spawning needs.

These cards provide information about the characteristics of selected species. Due to a variety of pressures on aquatic habitats, many of our Danube fish are endangered. On each card, the status of the fish species on the Red List of the International Union for Conservation of Nature (IUCN.org) is given. Fish are therefore ideal indicators of the

ecological quality of the ecosystem – the diversity and biomass of the total fish community show the ecological quality of the waterbody. For this reason fish are one of the biological quality elements defined in the Water Framework Directive of the European Union (WFD), together with invertebrates, water plants, algae and plankton.

**JOINT  
DANUBE  
SURVEY 4**



[danubesurvey.org/jds4](http://danubesurvey.org/jds4)

**IN 2019, JDS4 WAS THE MOST COMPREHENSIVE INVESTIGATIVE  
SURFACE-WATER MONITORING EFFORT IN THE WORLD.**

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The fourth of its kind, the purpose of this Joint Danube Survey (JDS) is to gather vital data on elements of water status across the entire 2,857km of the Danube River and its major tributaries, covering 10% of continental Europe, and territory in 19 countries – that makes it the most international river basin in the world!

The results of this survey will help us assess the future of all Danube species, including the many fish that call our river basin their home.

# DESCRIPTION OF THE FAMILIES

[WWW.DANUBESURVEY.ORG](http://WWW.DANUBESURVEY.ORG)

The following cards introduce the fish families of the Danube. Explanation of technical terms and more detailed information can be found on the JDS4 website.









## CARP FISH (CYPRINIDAE)

are the most diverse native fish family with many species from very small to very large. Furthermore, carp is one of the most popular edible fish in the region.

**CHARACTERISTICS** *no teeth in mouth, fifth gill arch shaped as pharyngeal teeth, round scales, no or one to two pairs of barbels*

**Asp** *Aspius aspius*  
**Barbel** *Barbus barbus*  
**Bleak** *Alburnus alburnus*  
**Blageon** *Telestes souffia*  
**Blue bream** *Ballerus ballerus*  
**Bream** *Abramis brama*  
**Bitterling** *Rhodeus amarus*  
**Carp** *Cyprinus carpio*  
**Chub** *Squalius cephalus*  
**Crucian carp** *Carassius carassius*  
**Dace** *Leuciscus leuciscus*  
**Danube bream** *Ballerus sapa*  
**Danube roach** *Rutilus pigus*  
**Danubian gudgeon** *Romanogobio uranoscopus*  
**Eurasian minnow** *Phoxinus phoxinus*  
**Gudgeon** *Gobio gobio*  
**Ide** *Leuciscus idus*  
**Kessler's gudgeon** *Romanogobio kesslerii*  
**Nase** *Chondrostoma nasus*  
**Prussian carp** *Carassius gibelio*  
**Roach** *Rutilus rutilus*  
**Rudd** *Scardinius erythrophthalmus*  
**Sabre carp** *Pelecus cultratus*  
**Spirlin** *Alburnoides bipunctatus*  
**Sunbleak** *Leucaspis delineatus*  
**Tench** *Tinca tinca*  
**Vimba bream** *Vimba vimba*  
**White bream** *Blicca bjoerkna*  
**White-finned gudgeon** *Romanogobio vladykovi*

Species **ASP**  
**Aspius aspius**



max. length  
**100 cm**



Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**fish**

spawning season  
**Mar-May**

migration distance  
**medium**

cross section  
**oval**

spawning substrate  
**gravel fine / coarse**

preferred water velocity  
**medium - strong**

Species  
**Barbus barbus** **BARBEL**



max. length  
**100 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

cross section  
**round**

spawning season  
**Apr-May**

spawning substrate  
**gravel fine / coarse**

migration distance  
**medium**

preferred water velocity  
**medium - strong**



Species  
**Alburnus alburnus** **BLEAK**



max. length  
**20 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates**

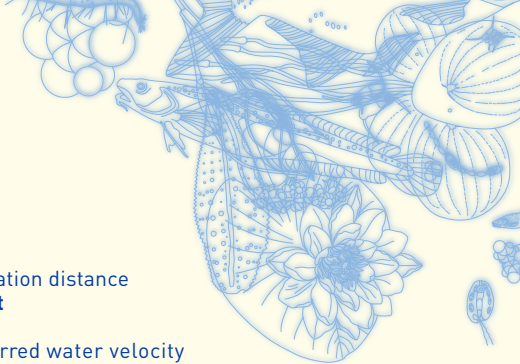
cross section  
**oval**

spawning season  
**May-June**

spawning substrate  
**plants / gravel**

migration distance  
**short**

preferred water velocity  
**slow - medium**





Species  
**Telestes souffia** **BLAGEON**



max. length  
**20 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

cross section  
**round**

spawning season  
**Mar–May**

spawning substrate  
**gravel fine / coarse**

migration distance  
**short**

preferred water velocity  
**medium - strong**



Species  
**Ballerus ballerus**

# BLUE BREAM

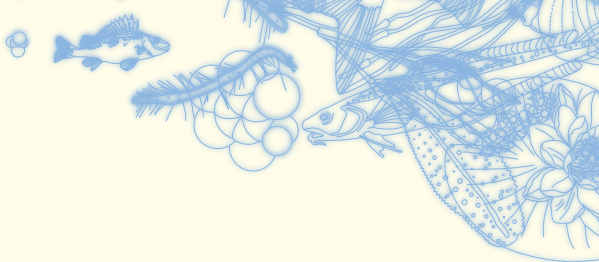


max. length  
**40 cm**

Fish family  
**Carp fish (Cyprinidae)**



IUCN status 1/2019  
**least concern**



preferred food  
**plankton**

spawning season  
**May-June**

migration distance  
**short**

cross section  
**oval high**

spawning substrate  
**gravel fine / coarse**

preferred water velocity  
**slow - medium**

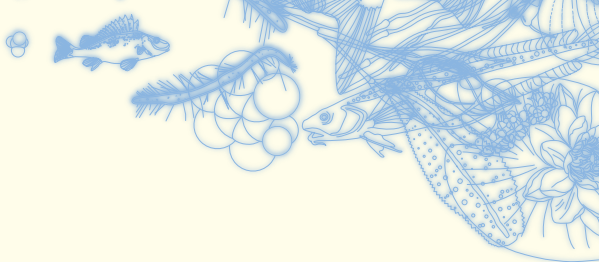
Species  
**Abramis brama** **BREAM**



max. length  
**70 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**May-June**

migration distance  
**short**

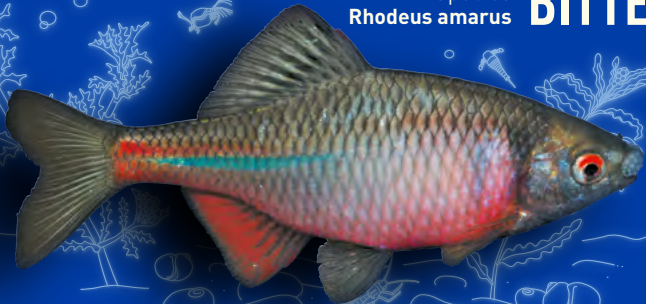
cross section  
**oval high**

spawning substrate  
**plants / gravel**

preferred water velocity  
**slow - medium**

Species  
**Rhodeus amarus**

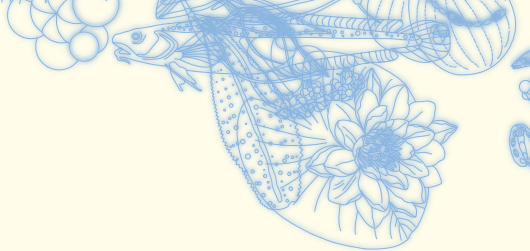
# BITTERLING



max. length  
**10 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**Apr-May**

migration distance  
**short**

cross section  
**oval high**

spawning substrate  
**in mussels**

preferred water velocity  
**slow**



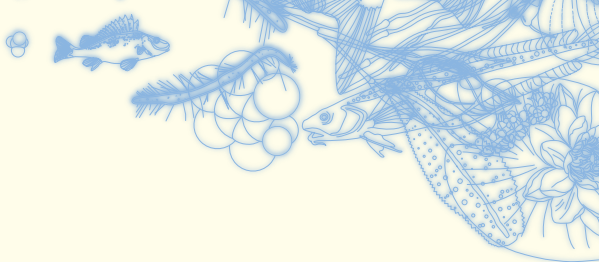
Species  
**Carp**  
*Cyprinus carpio*



max. length  
**100 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**vulnerable**



preferred food  
**invertebrates at river bottom**

spawning season  
**May-June**

migration distance  
**short**

cross section  
**oval high**

spawning substrate  
**plants**

preferred water velocity  
**slow**

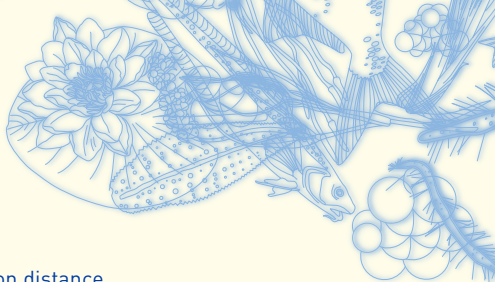
Species  
**Squalius cephalus** **CHUB**



max. length  
**60 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**no preference**

spawning season  
**Apr-June**

migration distance  
**short**

cross section  
**round**

spawning substrate  
**gravel fine / coarse**

preferred water velocity  
**slow - medium**

Species  
**Carassius carassius**

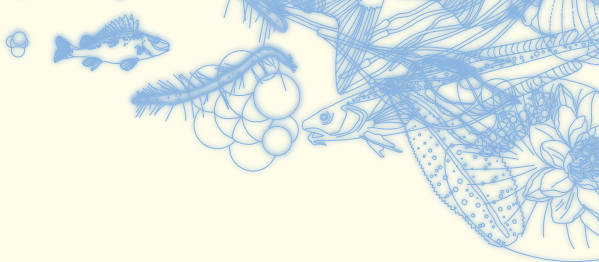
# CRUCIAN CARP



max. length  
**40 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**Mar-June**

migration distance  
**short**

cross section  
**oval high**

spawning substrate  
**plants**

preferred water velocity  
**slow**

Species  
**Leuciscus leuciscus** **DACE**



max. length  
**30 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates**

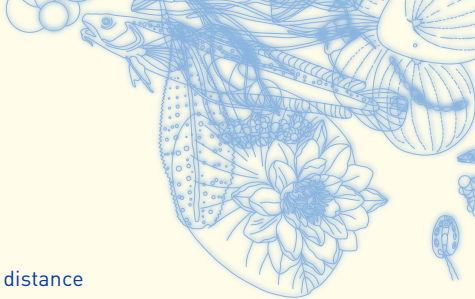
spawning season  
**Mar-Apr**

migration distance  
**short**

cross section  
**oval**

spawning substrate  
**plants / gravel**

preferred water velocity  
**slow - medium**





Species  
**Ballerus sapa**

# DANUBE BREAM



max. length  
**40 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

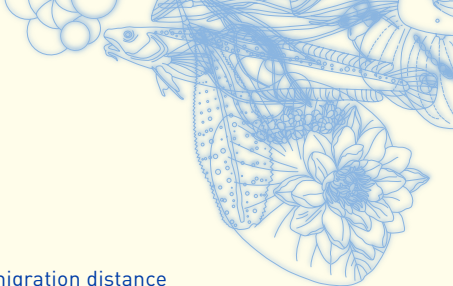
cross section  
**oval high**

spawning season  
**May-June**

spawning substrate  
**gravel fine / coarse**

migration distance  
**short**

preferred water velocity  
**slow - medium**



Species  
**Rutilus pigus**

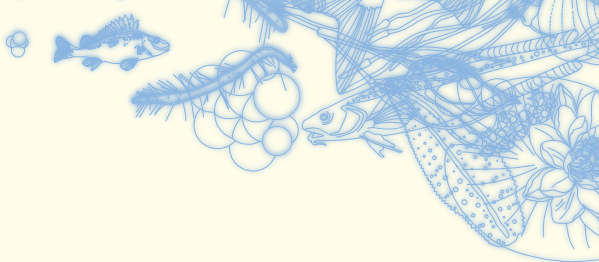
# DANUBE ROACH



max. length  
**60 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**Mar-May**

migration distance  
**short**

cross section  
**oval high**

spawning substrate  
**gravel fine / coarse**

preferred water velocity  
**medium - strong**

Species  
**Romanogobio uranoscopus**

# DANUBIAN GUDGEON



max. length  
**15 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

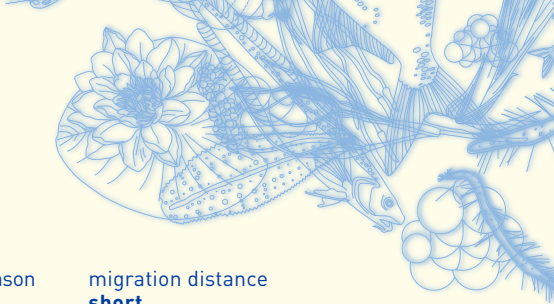
cross section  
**round**

spawning season  
**May-June**

spawning substrate  
**gravel fine / coarse**

migration distance  
**short**

preferred water velocity  
**medium - strong**



Species  
***Phoxinus phoxinus***

# EURASIAN MINNOW



max. length  
**10 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**May–July**

migration distance  
**short**

cross section  
**oval**

spawning substrate  
**gravel fine / coarse**

preferred water velocity  
**slow - medium**



Species  
**Gobio gobio** **GUDGEON**



max. length  
**20 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**Apr-May**

migration distance  
**short**

cross section  
**round**

spawning substrate  
**gravel fine / coarse**

preferred water velocity  
**slow - medium**

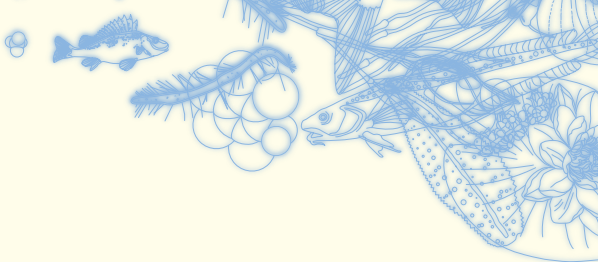
Species  
**Leuciscus idus** **IDE**



max. length  
**50 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates**

spawning season  
**Mar-May**

migration distance  
**medium**

cross section  
**oval**

spawning substrate  
**plants / gravel**

preferred water velocity  
**slow - medium**

Species  
**Romanogobio kesslerii**

# KESSLER'S GUDGEON



max. length  
**15 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

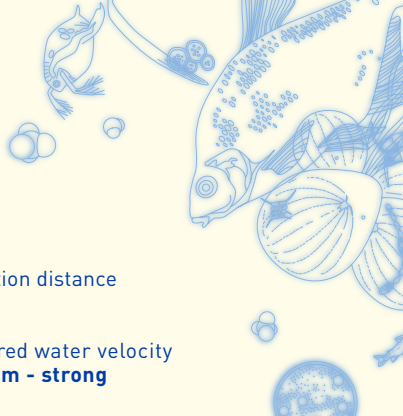
cross section  
**round**

spawning season  
**May-June**

spawning substrate  
**gravel fine / coarse**

migration distance  
**short**

preferred water velocity  
**medium - strong**



Species  
**Chondrostoma nasus** **NASE**



max. length  
**60 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**plants**

cross section  
**oval**

spawning season  
**Mar-May**

spawning substrate  
**gravel fine / coarse**

migration distance  
**medium**

preferred water velocity  
**medium - strong**





Species  
**Carassius gibelio**

# PRUSSIAN CARP



max. length  
**40 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

cross section  
**oval high**

spawning season  
**May–July**

spawning substrate  
**plants**

migration distance  
**short**

preferred water velocity  
**slow**



Species  
**Rutilus rutilus**

# ROACH



max. length  
**40 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

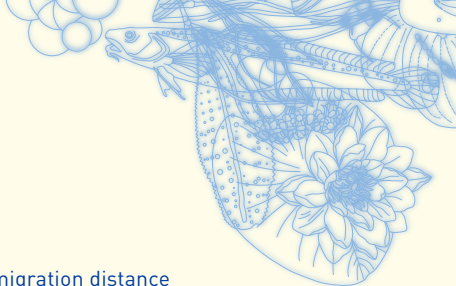
cross section  
**oval high**

spawning season  
**Apr–May**

spawning substrate  
**plants / gravel**

migration distance  
**short**

preferred water velocity  
**slow**



Species **RUDD**  
*Scardinius erythrophthalmus*



max. length  
**40 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**plants / insects**

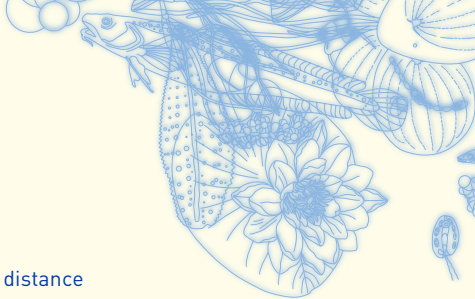
spawning season  
**Apr–May**

migration distance  
**short**

cross section  
**oval high**

spawning substrate  
**plants**

preferred water velocity  
**slow**



Species  
**Pelecus cultratus**

# SABRE CARP



max. length  
**50 cm**



Fish family  
**Carp fish (Cyprinidae)**



IUCN status 1/2019  
**least concern**



preferred food  
**plankton**

spawning season  
**Apr-June**

migration distance  
**medium**

cross section  
**oval high**

spawning substrate  
**pelagial**

preferred water velocity  
**slow - medium**



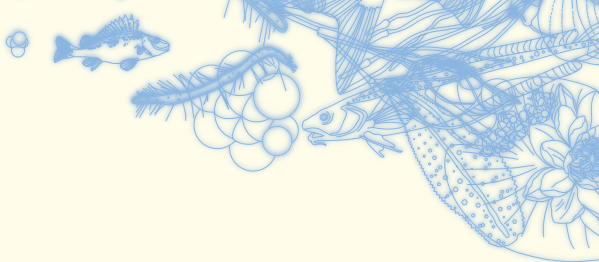
Species  
**Alburnoides bipunctatus** **SPIRLIN**



max. length  
**20 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**insects**

spawning season  
**May-June**

migration distance  
**short**

cross section  
**oval**

spawning substrate  
**gravel fine / coarse**

preferred water velocity  
**slow - medium**

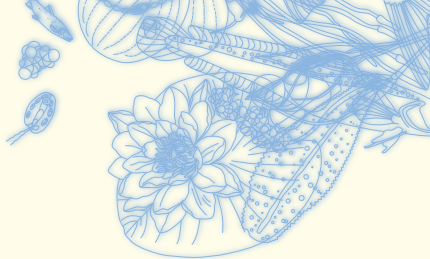
Species  
**Leucaspis delineatus** **SUNBLEAK**



max. length  
**10 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**plankton**

spawning season  
**Apr–July**

migration distance  
**short**

cross section  
**oval**

spawning substrate  
**plants**

preferred water velocity  
**slow**

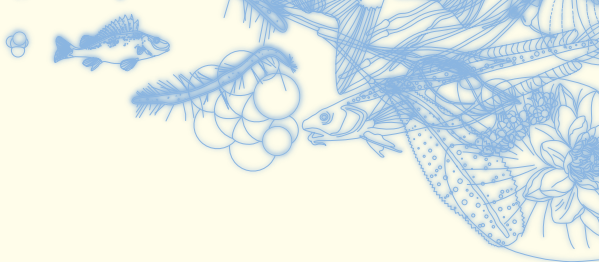
Species  
*Tinca tinca* **TENCH**



max. length  
**60 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**June–Aug**

migration distance  
**short**

cross section  
**oval**

spawning substrate  
**plants**

preferred water velocity  
**slow**

Species  
**Vimba vimba**

# VIMBA BREAM



max. length  
**50 cm**

Fish family  
**Carp fish (Cyprinidae)**





IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

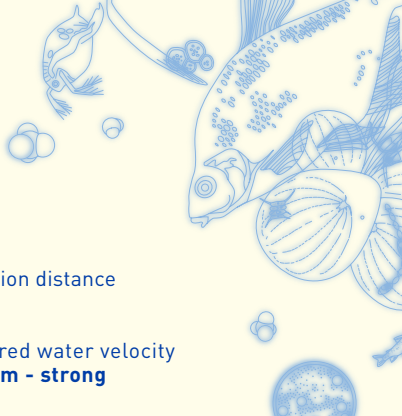
cross section  
**oval high**

spawning season  
**May-June**

spawning substrate  
**gravel fine / coarse**

migration distance  
**short**

preferred water velocity  
**medium - strong**





Species  
***Blicca bjoerkna***

# WHITE BREAM



max. length  
**30 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

cross section  
**oval high**

spawning season  
**May-June**

spawning substrate  
**plants / gravel**

migration distance  
**short**

preferred water velocity  
**slow - medium**



Species  
**Romanogobio vladykovi**

# WHITE-FINNED GUDGEON



max. length  
**15 cm**

Fish family  
**Carp fish (Cyprinidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

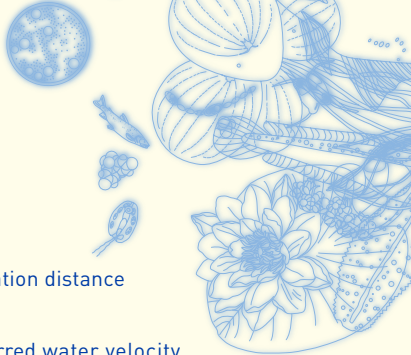
cross section  
**round**

spawning season  
**May-June**

spawning substrate  
**gravel fine / coarse**

migration distance  
**short**

preferred water velocity  
**slow - medium**





## CATFISH (SILURIDAE)

are the largest exclusively freshwater dwelling fish in Europe, with one species in the Danube. They are predators active at night and twilight.

**CHARACTERISTICS** *large and broad head, scaleless skin, long anal fin, 6 barbels, two of them very long*

**Wels catfish** *Silurus glanis*

Species  
**Silurus glanis**

# WELS CATFISH



max. length  
**300 cm**

Fish family  
**Catfish (Siluridae)**

IUCN status 1/2019  
**least concern**

preferred food  
**fish**

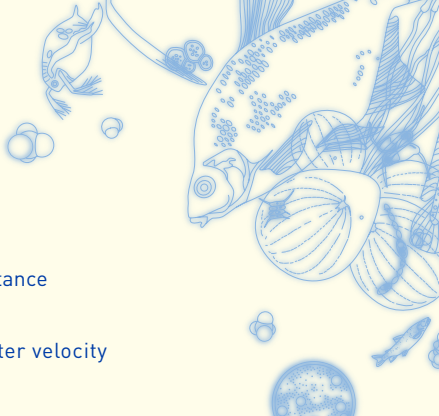
cross section  
**round**

spawning season  
**June–Aug**

spawning substrate  
**nest in plants**

migration distance  
**short**

preferred water velocity  
**slow**







# EELS (ANGUILLIDAE)

are not originally native to the Danube and have been introduced. Eels are long distance migrators travelling from fresh water to the sea for spawning.

**CHARACTERISTICS** *snake-like shape; dorsal fin, tail fin and anal fin fused to a single ribbon; no pelvic fins, the pectoral fins are well developed, one gill opening per side, two nostrils*


**Eel** *Anguilla anguilla*

Species  
**Anguilla anguilla** **EEL**



max. length  
**150 cm**

Fish family  
**Eels (Anguillidae)**



IUCN status 1/2019  
**critically endangered**

preferred food  
**no preference**

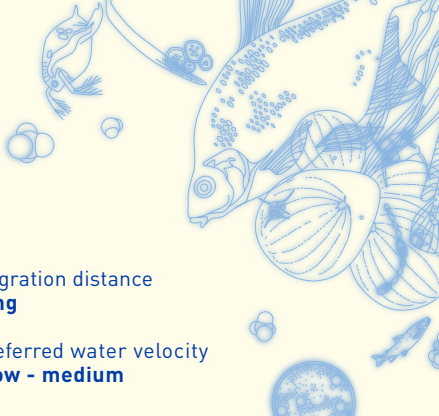
cross section  
**round**

spawning season  
**spawns only in the sea**

spawning substrate  
**pelagial**

migration distance  
**long**

preferred water velocity  
**slow - medium**



A white silhouette of a goby fish is centered on a teal background. The fish is facing right and has a large, rounded head, a small eye, and a slightly open mouth. It has two dorsal fins, a large pectoral fin, and a pelvic fin. The text "GOBIES (GOBIIDAE)" is written in bold, dark blue, uppercase letters across the middle of the fish's body.

## GOBIES (GOBIIDAE)

live on the river bottom, some species are native to the lower Danube, but are considered invasive species in the upper Danube.

**CHARACTERISTICS** *two dorsal fins, first dorsal fin made of hard spines, pelvic fins fused to a suction disc, large mouth, scales present*

**Bighead goby** *Ponticola kessleri*

**Monkey goby** *Neogobius fluviatilis*

**Racer goby** *Babka gymnotrachelus*

**Round goby** *Neogobius melanostomus*

**Tubenose goby** *Proterorhinus semilunaris*

Species  
**Ponticola kessleri**

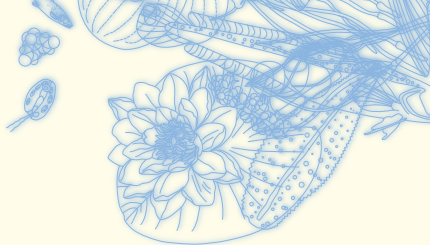
# BIGHEAD GOBY



max. length  
**20 cm**

Fish family  
**Gobies (Gobiidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**multiple spawner**

migration distance  
**short**

cross section  
**round**

spawning substrate  
**guarded in caves**

preferred water velocity  
**slow - medium**

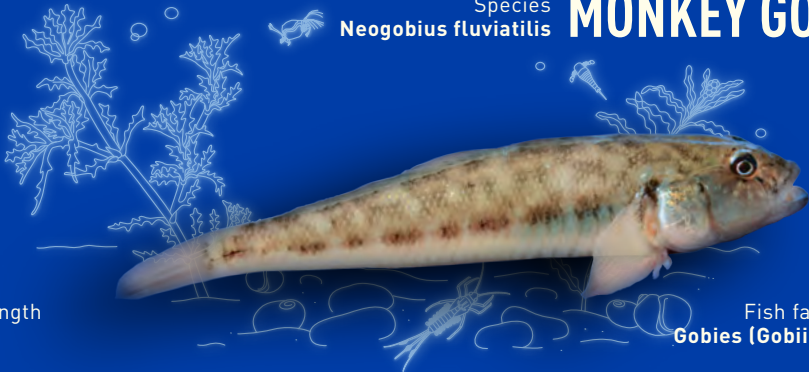


Species  
**Neogobius fluviatilis**

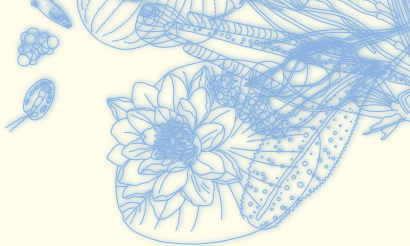
# MONKEY GOBY

max. length  
**16 cm**

Fish family  
**Gobies (Gobiidae)**



IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**multiple spawner**

migration distance  
**short**

cross section  
**round**

spawning substrate  
**guarded in caves**

preferred water velocity  
**slow**

Species  
**Babka gymnotrachelus**

# RACER GOBY



max. length  
**10 cm**

Fish family  
**Gobies (Gobiidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

cross section  
**round**

spawning season  
**multiple spawner**

spawning substrate  
**guarded in caves**

migration distance  
**short**

preferred water velocity  
**slow - medium**



Species

**Neogobius melanostomus**

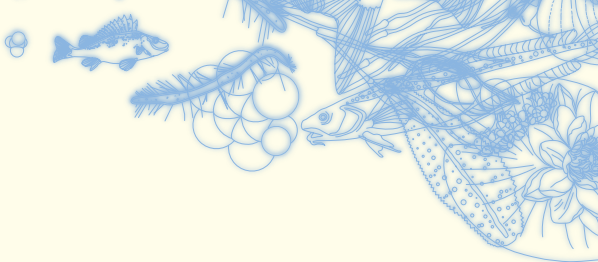
# ROUND GOBY

max. length  
**20 cm**

Fish family  
**Gobies (Gobiidae)**



IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**multiple spawner**

migration distance  
**short**

cross section  
**round**

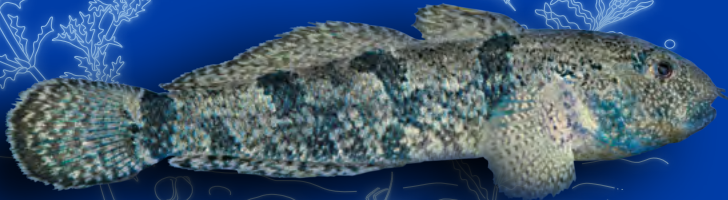
spawning substrate  
**guarded in caves**

preferred water velocity  
**slow**

Species

*Proterorhinus semilunaris*

# TUBENOSE GOBY



max. length  
**8 cm**

Fish family  
**Gobies (Gobiidae)**



IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

cross section  
**round**

spawning season  
**Mar-Apr**

spawning substrate  
**guarded in caves**

migration distance  
**short**

preferred water velocity  
**slow**







# LAMPREYS (PETROMYZONTIDAE)

are not actually fish at all, but close relatives. They spawn in the upper reaches of streams and rivers. Their larvae (ammocoetes) live up to 7 years buried in the mud before reaching maturity.

**CHARACTERISTICS** *snake-like shape, no bilateral fins, seven gill openings, only one nostril*

**Danube lamprey** *Eudontomyzon mariae*

Species  
***Eudontomyzon mariae***

# DANUBE LAMPREY



max. length  
**15 cm**

Fish family  
**Lampreys (Petromyzontidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**detritus**

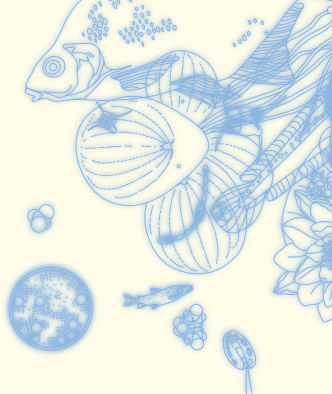
cross section  
**round**

spawning season  
**Mar-Apr**

spawning substrate  
**gravel fine / coarse**

migration distance  
**medium**

preferred water velocity  
**slow - medium**





## MUDMINNOWS (UMBRIDAE)

live in plant-rich and shallow waters with muddy floors and are threatened with extinction.

**CHARACTERISTICS** *no barbels, long dorsal fin, scaly gill cover and cheeks, jaws with teeth, elongated body*

**European mudminnow** *Umbra krameri*

Species  
**Umbra krameri**

# EUROPEAN MUDMINNOW

max. length  
**10 cm**

Fish family  
**Mudminnows (Umbridae)**



IUCN status 1/2019  
**vulnerable**

preferred food  
**invertebrates**

cross section  
**oval**

spawning season  
**Mar-Apr**

spawning substrate  
**plants**

migration distance  
**short**

preferred water velocity  
**slow**







## PERCHES (PERCIDAE)

are mainly predators, large species feed on other fish.

**CHARACTERISTICS** *two dorsal fins, first dorsal fin made of spines, anal fin with 1-2 spines, ctenoid scales*

**Danube ruffe** *Gymnocephalus baloni*  
**Perch** *Perca fluviatilis*  
**Pikeperch** *Sander lucioperca*  
**Schraetser** *Gymnocephalus schraetser*  
**Ruffe** *Gymnocephalus cernua*  
**Streber** *Zingel streber*  
**Volga pikeperch** *Sander volgensis*  
**Zingel** *Zingel zingel*

Species

**Gymnocephalus baloni**

# DANUBE RUFFE



max. length  
**18 cm**

Fish family  
**Perches (Percidae)**



IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

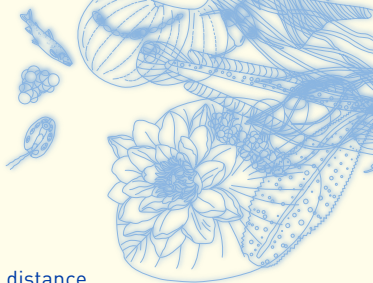
cross section  
**oval**

spawning season  
**Apr-June**

spawning substrate  
**plants / gravel**

migration distance  
**short**

preferred water velocity  
**slow**



Species  
*Perca fluviatilis* **PERCH**



max. length  
**50 cm**

Fish family  
**Perches (Percidae)**



IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates, fish**

cross section  
**oval**

spawning season  
**Apr-June**

spawning substrate  
**plants / gravel**

migration distance  
**short**

preferred water velocity  
**slow**



Species  
**Sander lucioperca**

# PIKEPERCH



max. length  
**120 cm**

Fish family  
**Perches (Percidae)**



IUCN status 1/2019  
**least concern**

preferred food  
**fish**

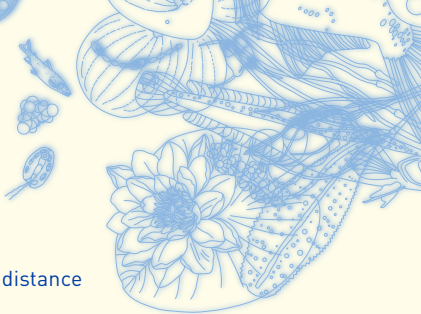
cross section  
**oval**

spawning season  
**Mar-May**

spawning substrate  
**nest made of plants**

migration distance  
**short**

preferred water velocity  
**slow - medium**





Species **RUFFE**  
*Gymnocephalus cernua*



max. length  
**18 cm**

Fish family  
**Perches (Percidae)**





IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

cross section  
**oval**

spawning season  
**Mar–May**

spawning substrate  
**plants / gravel**

migration distance  
**short**

preferred water velocity  
**slow**



Species

*Gymnocephalus schraetser*

# SCHRAETSER



max. length  
**20 cm**

Fish family  
**Perches (Percidae)**



IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

cross section  
**oval**

spawning season  
**Apr-May**

spawning substrate  
**gravel fine / coarse**

migration distance  
**short**

preferred water velocity  
**slow - medium**



Species  
**Zingel streber** **STREBER**



max. length  
**20 cm**

Fish family  
**Perches (Percidae)**



IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**Apr–May**

migration distance  
**short**

cross section  
**round**

spawning substrate  
**gravel fine / coarse**

preferred water velocity  
**strong**



Species

**Sander volgensis**

# **VOLGA PIKEPERCH**

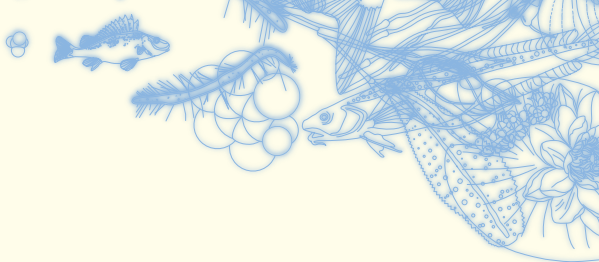


max. length  
**60 cm**

Fish family  
**Perches (Percidae)**



IUCN status 1/2019  
**least concern**



preferred food  
**fish**

spawning season  
**Apr-May**

migration distance  
**short**

cross section  
**oval**

spawning substrate  
**plants / gravel**

preferred water velocity  
**slow - medium**



Species  
**Zingel zingel** **ZINGEL**

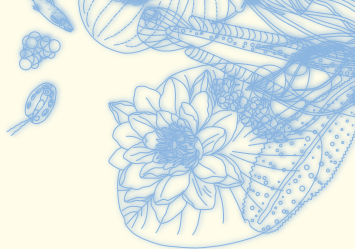


max. length  
**50 cm**

Fish family  
**Perches (Percidae)**



IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**Apr-May**

migration distance  
**short**

cross section  
**round**

spawning substrate  
**gravel fine / coarse**

preferred water velocity  
**medium - strong**



## PIKES (ESOCIDAE)

are efficient predators, lurking for smaller prey fish.

**CHARACTERISTICS** anal and dorsal fin far back on the body, duckbill-shaped mouth

**Pike** *Esox lucius*

Species  
**Esox lucius** **PIKE**



max. length  
**140 cm**

Fish family  
**Pikes (Esocidae)**



IUCN status 1/2019  
**least concern**

preferred food  
**fish**

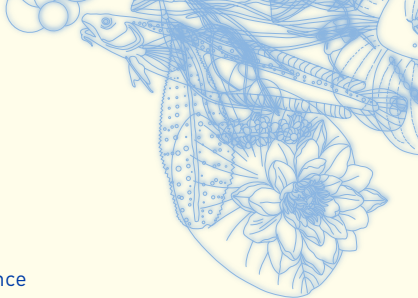
spawning season  
**Feb-June**

migration distance  
**short**

cross section  
**round**

spawning substrate  
**plants**

preferred water velocity  
**slow**





# ROCKLINGS (LOTIDAE)

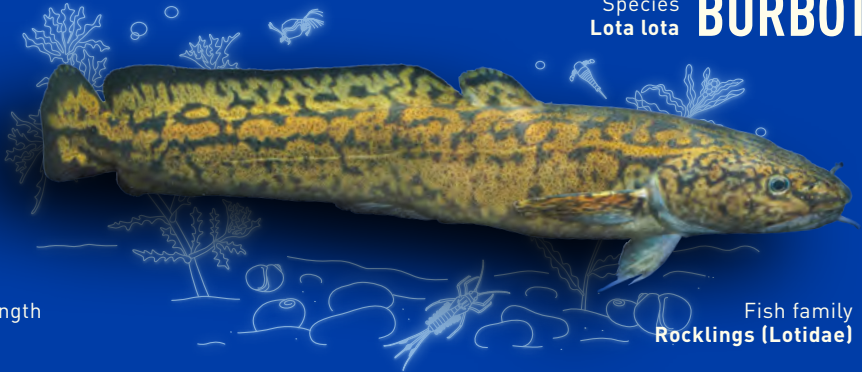
belong to the marine group of cod with one species found in fresh water.

**CHARACTERISTICS** *ventral fins located in pharyngeal area, one single barbel on the lower jaw*

**Burbot** Lota lota



Species  
*Lota lota* **BURBOT**



max. length  
**80 cm**

Fish family  
**Rocklings (Lotidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates, fish**

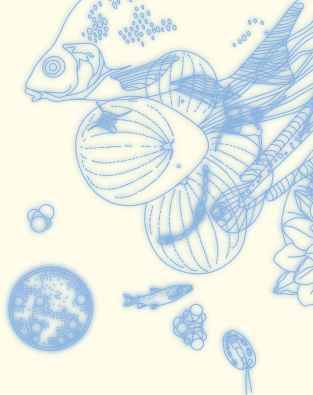
spawning season  
**Dec-Mar**

migration distance  
**medium**

cross section  
**round**

spawning substrate  
**gravel fine / coarse**

preferred water velocity  
**slow - medium**





## SALMON (SALMONIDAE)

prefer cold oxygen-rich water, feed on insects and other fish, they spawn in fresh water over gravel or pebble.

**CHARACTERISTICS** *adipose fin is present, no barbels, at spawning season milters develop a kype ("spawning hook")*

**Brown trout** *Salmo trutta fario*  
**Danube salmon** *Hucho hucho*

Species  
*Salmo trutta fario*

# BROWN TROUT



max. length  
**70 cm**

Fish family  
**Salmon (Salmonidae)**



IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

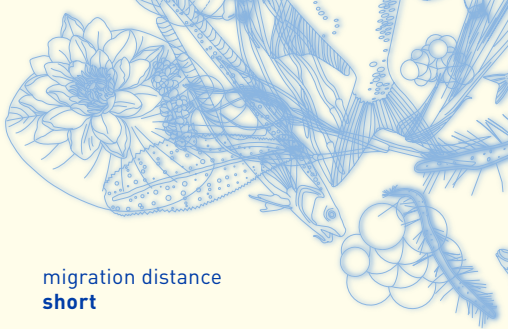
cross section  
**round**

spawning season  
**Oct-Dec**

spawning substrate  
**buried in gravel**

migration distance  
**short**

preferred water velocity  
**strong**



Species  
**Hucho hucho**

# DANUBE SALMON



max. length  
**150 cm**

Fish family  
**Salmon (Salmonidae)**

IUCN status 1/2019  
**endangered**

preferred food  
**fish**

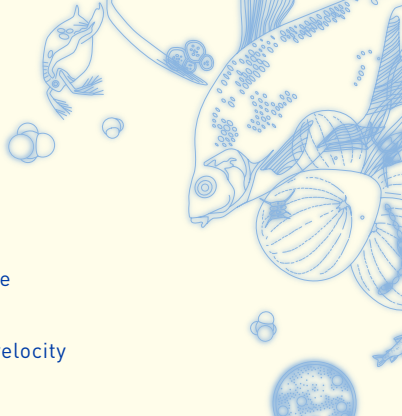
cross section  
**round**

spawning season  
**Mar-May**

spawning substrate  
**buried in gravel**

migration distance  
**medium**

preferred water velocity  
**medium - strong**







are poor swimmers and bottom feeders whose diet largely comprises river bottom invertebrates.

**CHARACTERISTICS** *two dorsal fins, first dorsal fin made of hard spines, pelvic fins separated, large mouth, no scales, swim bladder missing*

**Bullhead** *Cottus gobio*

Species  
**Cottus gobio** **BULLHEAD**



max. length  
**15 cm**

Fish family  
**Sculpin (Cottidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

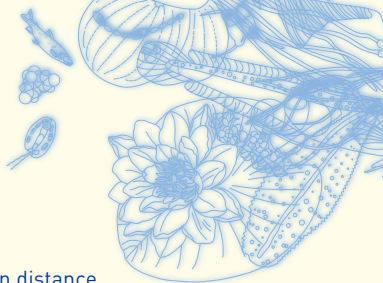
cross section  
**round**

spawning season  
**Mar-May**

spawning substrate  
**guarded in caves**

migration distance  
**short**

preferred water velocity  
**medium - strong**





## STONE LOACHES (NEMACHEILIDAE)

live hidden in slow-to-moderately fast flowing river zones.

**CHARACTERISTICS** *two pairs of barbels on the upper jaw, one pair of barbels on the lower jaw, degenerated air bladder*

**Stone loach** *Barbatula barbatula*

Species  
***Barbatula barbatula***

# STONE LOACH



max. length  
**15 cm**

Fish family  
**Stone loaches (Nemacheilidae)**



IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

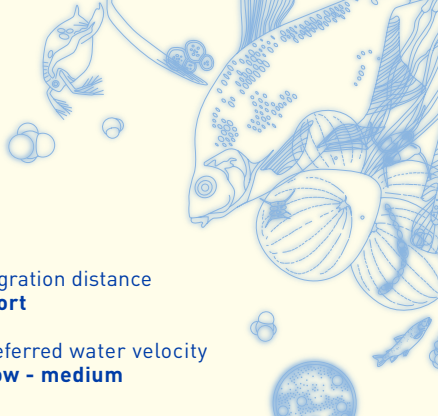
cross section  
**round**

spawning season  
**Apr-June**

spawning substrate  
**plants / gravel**

migration distance  
**short**

preferred water velocity  
**slow - medium**







# STURGEONS (ACIPENSERIDAE)

feed on invertebrates along the river bottom, and are long-distance migrators, living in the sea but swimming up rivers to spawn (exception: Sterlets live only in rivers). Maturity is reached only after many years, and these species can become very old.

**CHARACTERISTICS** *shark-like shape, large bone scales, pentagonal cross-section, unsymmetrical caudal fin*

**Danube sturgeon** *Acipenser gueldenstaedtii*

**Giant sturgeon** *Huso huso*

**Ship sturgeon** *Acipenser nudiiventris*

**Starry sturgeon** *Acipenser stellatus*

**Sterlet** *Acipenser ruthenus*

Species


*Acipenser gueldenstaedtii*

# DANUBE STURGEON



max. length  
**240 cm**

Fish family  
**Sturgeons (Acipenseridae)**



IUCN status 1/2019  
**critically endangered**

preferred food  
**invertebrates at river bottom**

spawning season  
**Apr-June**

migration distance  
**long**

cross section  
**pentagonal**

spawning substrate  
**rock / gravel**

preferred water velocity  
**slow - medium**

Species  
**Huso huso**

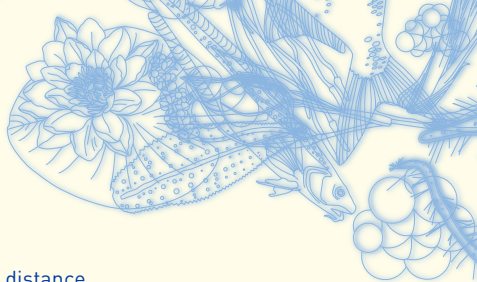
# GIANT STURGEON



max. length  
**800 cm**

Fish family  
**Sturgeons (Acipenseridae)**

IUCN status 1/2019  
**critically endangered**



preferred food  
**fish**

spawning season  
**Jan-Apr / Aug-Nov**

migration distance  
**long**

cross section  
**pentagonal**

spawning substrate  
**rock / gravel**

preferred water velocity  
**slow - medium**



Species  
**Acipenser nudiventris**

# SHIP STURGEON



max. length  
**220 cm**

Fish family  
**Sturgeons (Acipenseridae)**



IUCN status 1/2019  
**critically endangered**

preferred food  
**invertebrates at river bottom**

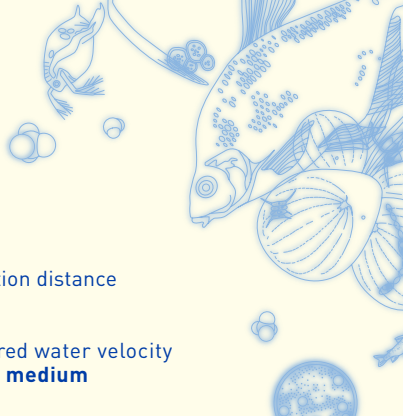
cross section  
**pentagonal**

spawning season  
**Apr-June**

spawning substrate  
**rock / gravel**

migration distance  
**long**

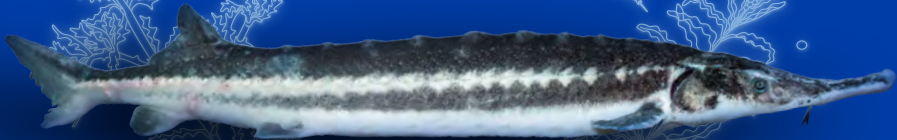
preferred water velocity  
**slow - medium**





Species  
**Acipenser stellatus**

# STARRY STURGEON



max. length  
**250 cm**

Fish family  
**Sturgeons (Acipenseridae)**

IUCN status 1/2019  
**critically endangered**

preferred food  
**invertebrates at river bottom**

cross section  
**pentagonal**

spawning season  
**May-June**

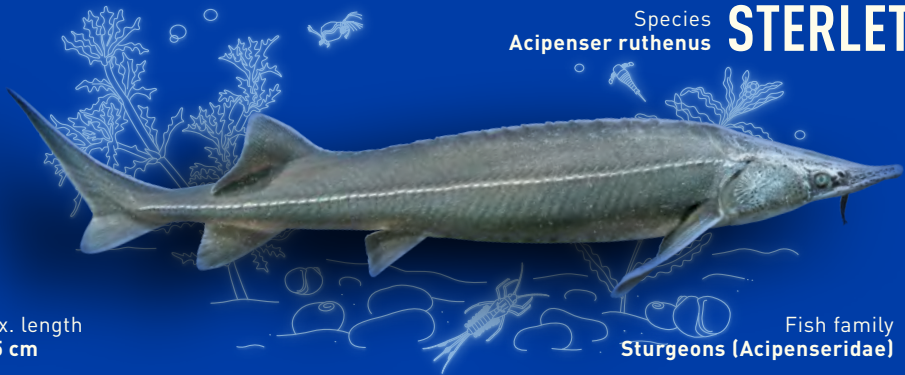
spawning substrate  
**rock / gravel**

migration distance  
**long**

preferred water velocity  
**slow - medium**



Species  
**Acipenser ruthenus** **STERLET**



max. length  
**125 cm**

Fish family  
**Sturgeons (Acipenseridae)**

IUCN status 1/2019  
**vulnerable**

preferred food  
**invertebrates at river bottom**

cross section  
**pentagonal**

spawning season  
**Apr-May**

spawning substrate  
**rock / gravel**

migration distance  
**medium**

preferred water velocity  
**slow - medium**





## TRUE LOACHES (COBITIDAE)

are small bottom feeder fish that feed on invertebrates.

**CHARACTERISTICS** some species have a fold-out spine in a skin fold below the eyes, 6-10 barbels, long and laterally compressed body, tiny scales

**Balkan loach** *Sabanejewia balcanica*  
**Spined loach** *Cobitis elongatoides*  
**Weatherfish** *Misgurnus fossilis*

Species

*Sabanejewia balcanica*

# BALCAN LOACH



max. length  
**15 cm**

Fish family  
**True loaches (Cobitidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

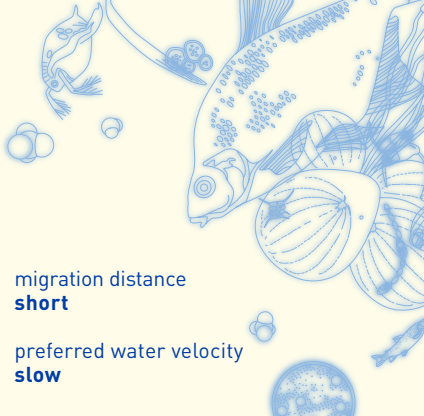
cross section  
**oval high**

spawning season  
**May–June**

spawning substrate  
**plants, sand, fine gravel**

migration distance  
**short**

preferred water velocity  
**slow**





Species  
***Cobitis elongatoides***

# SPINED LOACH



max. length  
**15 cm**

Fish family  
**True loaches (Cobitidae)**

IUCN status 1/2019  
**least concern**



preferred food  
**invertebrates at river bottom**

spawning season  
**May-June**

migration distance  
**short**

cross section  
**oval high**

spawning substrate  
**plants**

preferred water velocity  
**slow - medium**

Species  
**Misgurnus fossilis**

# WEATHERFISH



max. length  
**30 cm**

Fish family  
**True loaches (Cobitidae)**

IUCN status 1/2019  
**least concern**

preferred food  
**invertebrates at river bottom**

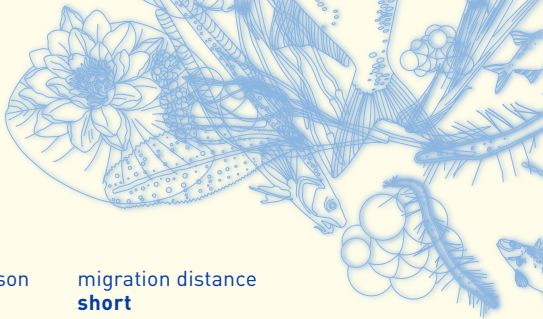
cross section  
**round**

spawning season  
**May–June**

spawning substrate  
**plants**

migration distance  
**short**

preferred water velocity  
**slow**



# FISH FAMILIES - COLOR CODES

**CARP FISH** (Cyprinidae)

**CATFISH** (Siluridae)

**EELS** (Anguillidae)

**GOBIES** (Gobiidae)

**LAMPREYS** (Petromyzontidae)

**MUDMINNOWS** (Umbridae)

**PERCHES** (Percidae)

**PIKES** (Esocidae)

**ROCKLINGS** (Lotidae)

**SALMON** (Salmonidae)

**SCULPIN** (Cottidae)

**STONE LOACHES** (Nemacheilidae)

**STURGEONS** (Acipenseridae)


**TRUE LOACHES** (Cobitidae)



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