



## Quartet

Species diversity on the Danube

### Game rules

The game can be played by two or more people. All the cards are dealt out evenly to the players. The aim is to collect a quartet, four cards with the same letter, that is, from the same category.

If a player has collected a quartet they can lay this down in front of them.

In order to collect a quartet, each player requests a particular card that they do not have from another player of their choice, for example B4. If the other player has the card they must hand it over. If they do not have it, the requesting player comes away empty handed. Each player in turn requests particular cards.

Whoever collects the most quartets is the winner.

### Fish

A 1



#### Pike

The pike is a hunter in standing and flowing waters that are rich in plant life.

Well-camouflaged between the water plants, the up to 1.5-metre long fish lies in wait for its prey, which it stabs with a rapid thrust. To spawn, the pike needs flood plains, or shallow waters rich in plant life.

### Fish

A 2



#### Catfish

The catfish is a widespread fish species. It is one of the biggest freshwater fish in Europe with a size up to 3 m long. Young specimens are much-appreciated for eating. The catfish lives in lakes and large rivers living on fish, crustaceans and even ducks.

### Fish

A 3



#### Beluga Sturgeon

The beluga sturgeon is the biggest of the six species of sturgeon in the Danube. It grows up to 8 m long. Like most sturgeons in the Danube, the beluga originally migrated long distances to spawn, from the Black Sea up to Germany.

Its eggs are a much sought-after delicacy as beluga caviar. Today the beluga is highly endangered.

### Fish

A 4



#### Schraetzer

The schraetzer is a gregarious fish. It loves fast-flowing rivers where it likes to spend its time in the deepest places. The fish eggs are attached to gravel and sand beds. At a length of 15-20 cm the fish is relatively small. The schraetzer cannot find a habitat in dammed reservoirs and regulated rivers.

### Insects

B 1



#### Yellow-legged dragonfly

In their first year of life, the larvae of the dragonfly develop in water. The larvae lie in wait for their prey half buried in the sandy beds of waters. After three to four years the larvae climb onto land where the adult dragonflies hatch out.

The damselfly needs clean and natural flowing waters.

### Insects

B 2



#### Freyer's purple emperor

Freyer's purple emperor occurs primarily in the lower course of the Danube. Its caterpillars live on willows. They feed on the leaves of the willows and hibernate in cracks in the bark. The upper side of the males shimmer in various shades of blue.

## Insects

B 3



### Stonefly

The stonefly larvae are inhabitants of fast-flowing, oxygen-rich streams and rivers. They preferably live under stones and moss cushions. Stoneflies need clean water and are sensitive to pollution. The adults hatch out on land, but in their short life do not move far away from water.

## Insects

B 4



### Dronefly

The larvae of some species of dronefly can even live in very polluted water. They extend a breathing tube and breathe under water as if through a snorkel. The adult droneflies hatch out on land. They can frequently be seen on flowers.

## Crustaceans

C 1



### Scud

Scuds live hidden on the bed of the waters, in deposits of foliage and thick vegetation. Because of their way of moving forward they have the nickname "sideswimmers". They grow up to 3 cm long. Scuds primarily feed upon living or also dead vegetation.

## Crustaceans

C 2



### Water louse

Even if its name suggests otherwise, the water louse is a crustacean. Water lice grow only 12 mm long. They live on the remains of dead vegetation and are mostly found in standing waters.

## Crustaceans

C 3



### Waterflea

Water fleas are small crustaceans that live in standing waters. They swim by beating their feelers. Using their legs, they create a stream of water out of which they filter their food – bacteria and small algae.

## Crustaceans

C 4



### Crayfish

The crayfish live in clean rivers and streams. The animals can grow up to 16 cm long. At night they go in search of food. Usually they crawl along the bed of the river. Previously, crayfish were widespread. Today they have become very rare due to the lack of suitable habitats.

## Amphibians

D 1



### Danube crested newt

Newts are amphibians that spend a large part of their life in water. From April until late summer they occupy vegetation-rich waters and floodplain forests. Danube crested newts grow up to 12 cm long. During the mating season the crest on their back lends the animals a dragon-like appearance.

## Amphibians

D 2



### Common tree frog

The tree frogs are loud-voiced inhabitants of floodplain forests. With adhesive discs on their fingers and toes the tree frogs are exceptional climbers. Tree frogs hunt for insects in shrubs, bushes and trees. From April until June the males gather in the waters of the floodplain forests and attract the females with their loud croaking chorus.

## Amphibians

D 3



### Marsh frog

At up to 15 cm, the marsh frogs are the largest frogs in the Danube basin. They live in oxbow lakes and vegetation-rich, sluggishly flowing rivers.

Marsh frogs spend almost the whole year in and on the water, preferring sunny banks.

## Amphibians

D 4



### Fire-bellied toad

Fire-bellied toads are inhabitants of extensive riverine landscapes along the Danube. They prefer flat, vegetation-rich waters. Fire-bellied toads are flexible in their choice of breeding waters and easily colonise new habitats.

Their intense colouring serves to frighten off enemies.

## Reptiles

E 1



### European pond turtle

Pond turtles are shy inhabitants of the waters of the floodplain forests. They are skilful divers and swimmers and catch snails, water insects and larvae. They lay their clutch of eggs in dry, sunny banks. Pond turtles like to sunbathe on tree trunks in the water.

## Reptiles

E 2



### Red-eared terrapin

The red-eared terrapin originates from America. It is on sale widespread as a pet. Red-eared terrapins are often abandoned in floodplain forests by owners who do not want them anymore.

But the red-eared terrapins are driving out indigenous species such as the European pond turtle of their habitats and are therefore endangering them.

## Reptiles

E 3



### Grass snake

The grass snakes like to live on rivers, streams and waters of the floodplain forest. They can often be seen with a raised head gliding elegantly through the water where they hunt their prey – mainly frogs.

The harmless grass snakes can be recognised by the half-moon-shaped light spots on their heads.

## Reptiles

E 4



### Dice snake

The shy, non-poisonous dice snake is an exceptional diver and swimmer. It feeds mainly on fish, which it catches under water. The dice snake needs undisturbed waters that are rich in fish.

It has already completely disappeared from modified waters.

## Plants

F 1



### Pond water crowfoot

The pond water crowfoot colonises clean streams and rivers. Under water the plant forms a thick tangle of stems and deeply dissected leaves. Only the white flowers rise above the surface. Stems that have been torn off can take root elsewhere and thus ensure the spread of the plant.

## Plants

F 2



### Common reed

The common reed is a plant of floodplain forests and other wetlands which occurs world-wide. It can grow up to 6 m high. Individual plants grow ever further with underground shoots and can live to be 1.000 years old.

Common reeds are a flexible crop that can be used as a building material, for insulation, stall litter, roofing, and even for coffee substitute.



## Plants

F 3



### Water chestnut

The water chestnut floats on the surface of the water using a circle of spreading leaves. It primarily colonises oxbow lakes and shallow ponds.

Its hard-shelled fruit have been eaten since the Stone Age and even until a few years ago could be bought in markets.

## Plants

F 4



### White willow

The white willow grows on frequently flooded river banks and is well adapted to fluctuating water levels. It loves the nutrient-rich soil of floodplain forests.

The flexible branches of the white willow are used in basketry, the bark in medicine.

## Mammals

G 1



### Beaver

Hardly any other animal shapes the riverine landscapes as much as the beaver. It clears the rows of bank-side trees and builds dams with which it blocks rivers and oxbow lakes. It feeds on plants and in winter on the bark and the buds of young branches. When swimming, its wide tail serves as a rudder. Previously the beaver was hunted almost to extinction for his pelt and meat.

## Mammals

G 2



### Otter

The otter is a skilful fish-hunter in rivers and streams. When diving it holds its front paws against its body and drives itself forward with a weaving movement using its tail.

Previously the otter was hunted for its fur. Today there are no suitable habitats for it on many rivers.

## Mammals

G 3



### Meadow deer

The meadow deer, a particularly large and powerful form of the red deer, lives in the floodplain forests along the Danube.

Over the course of the summer the deer grows large antlers. This “crown” has also given it the nickname “king of the forest”. In the rutting season in autumn the booming of the deer can be heard from far away. On the deer’s menu are young branches, grasses, herbs, fruit and fungi.

## Mammals

G 4



### Daubenton's bat

Daubenton's bat specialises in nocturnal hunting over water bodies. It flies low over the water surface catching midges and moths with its mouth. With its large feet it also fishes insects directly out of the water. The summer quarters of the bat are in holes in trees that it takes over from woodpeckers. In winter it hibernates in caves and cellars.

## Birds

H 1



### Kingfisher

The kingfisher is a colourful inhabitant of rivers and floodplain forests.

The young are reared in breeding tunnels in steep river-bank shrubbery. It sits on branches hanging over the water, looking out for its prey (fish and aquatic insects). It catches its prey by diving into the water.

## Birds

H 2



### White pelican

The white pelican lives in the extensive marshes and waters of the Danube Delta. It transports its favourite meal – fish – to its young in its large throat pouch. Pelicans often hunt together. They form a chain and beat their wings on the water to drive the fish into shallow water, where they can catch them easily.

## Birds

H 3



### White-tailed eagle

The white-tailed eagle is Europe's biggest bird of prey. It feeds on fish and water birds, which it seizes in diving flight. The white-tailed eagle is a settled bird that returns to the same eyrie every year. White-tailed eagles were long hunted and are also threatened by pollution. The imposing bird is the heraldic animal of many countries of the Danube.

## Birds

H 4



### Black stork

The black stork is a shy relative of the white stork. It lives reclusively in inaccessible woods of the floodplain forest. The black stork seeks its diet of fish and frogs in the waters of the floodplain forests, in meadows and streams. It likes to build its nest in old trees.

## Invertebrates

I 1



### Great pond snail

The great pond snail inhabits vegetation-rich, standing or slow-flowing waters. With a rasping tongue it scrapes algae off plant stems and stones. Often, the snail hangs from the water surface by its foot in order to fill its lungs with air.

## Invertebrates

I 2



### Danube freshwater snail

The Danube freshwater snail is a species that exists only on the Danube. Its striped shell was turned into jewellery in earlier times. It needs clean, fast-flowing water. Today it is among the highly endangered species.

## Invertebrates

I 3



### Painters' mussel

The painters' mussel is found in the sandy beds of water bodies where it lives half buried. It has a foot with which it can creep slowly forwards. River mussels filter their food out of the water. A mussel can filter several hundred litres of water per year, and thereby also purify it. In earlier times its bulbous shell was used for mixing paints.

## Invertebrates

I 4



### Zebra mussel

The zebra mussel lives up to its German name, the "travelling mussel". Originally it comes from south-eastern Europe. It was then spread through the whole Danube basin being attached on ships. The zebra mussel drives out indigenous species and disturbs the natural species diversity.



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