

FISH OF INTEREST IN THE KYUSTENDIL MUNICIPALITY

The Kyustendil municipality is among the most popular fishing destinations in Bulgaria. The clear rivers, unaffected by human activities, have always attracted people, enjoying this hobby. These rivers offer an abundance of fish and aquatic fauna. Struma is probably the river with the highest productivity in Bulgaria in terms of fish diversity. On the other hand, due to various paleo-geographic and geological reasons, the fish fauna in River Struma and its tributaries is very specific. You can encounter there several fish species, which are only found in this river and in several neighbouring larger Bulgarian rivers, and nowhere else in the world. People are not adapted to observing fish in their natural habitat, without using special equipment. With the help of binoculars, however, you can watch many of the species, swimming in pure, transparent water. Or you can even take photos. If, however, you have decided to try to catch them – always return them back in the river. This is the principle, followed by the greatest fishing specialists in the world.

Here are some of the most interesting species, and some of those who are easiest to observe in the rivers of the Kyustendil municipality.

Brown trout (*Salmo macedonicus*) It inhabits rivers with water rich in oxygen. It is to be found in almost all rivers in the Western, near-border mountains, especially in their upper reaches. Individual specimens also enter River Struma. It can easily be observed during the mating period. At that time this fish gathers in large numbers in the shallow swifts. During the rest of the year, it can be seen in the larger pools. If you are careful enough and manage to approach the bank without being seen, you may be able to catch a glimpse of it. Be attentive – its brownish colour with brick-red and black dots helps it merge perfectly into the environment remain unnoticed. It will be easier for you if you use binoculars. Most often, fish about 20 cm long can be seen, but larger specimens of 30-40 cm are also not that rare. This species is endemic for the Balkans and the fish stocking with foreign trout species that has taken place in the past, is a serious problem in this region. This sub-species is easily distinguished from the foreign Balkan trout, brought here by men. The latter have tiny orange or orange-red dots, unlike the brick-red and much larger dots of the brown (Aegean) trout. The best places to observe it are Rivers Dragovishtitsa, Struma, Eleshnitsa.

Orpheus dace (*Squalius orpheus*) One of the most common fish species in the rivers in this region. It can be seen in calm pools, where it tries to catch its prey near the surface or just enjoys the sun. The young specimens move in shoals, and adults – individually. The Zemen Gorge and the river, downstream of the gorge are among the most suitable places.

Common minnow (*Phoxinus phoxinus*) A small fish, reaching about 10 cm. Together with the brown trout it inhabits the upper reaches of clear, oxygen-rich mountain rivers and streams with sandy and gravelly riverbeds. It can be seen in calm waters in the said habitats. Usually several specimens gather together. During the mating period males have a characteristic golden pattern with red, black, blue dots, spots and stripes. The upper reaches of all rivers in the municipality are the places, where it can be easily observed, especially in calmer water.

Alburnoides strumicae it reaches up to 15 cm and a weight of up to 60-70 g. It has a long and laterally flattened body, but unlike the bleak, its body is higher. Another distinguishing mark of this fish is the double lateral line. It inhabits River Struma and its tributaries, preferring shallow, clear sections, and most of all – swifts and small natural or artificial water-falls. River Eleshnitsa, the rapids of River Struma in the Zemen Gorge, near the Skakavitsa Waterfall are perfect for its observation.

Common bleak (*Alburnus alburnus*) A relatively small fish, reaching 17-19 cm and weighing up to 80-100 g. Its body is long and laterally flattened, with large, shiny and easily falling

scales. It inhabits River Struma and its tributaries, preferring shallow, clean sections. It stays in the upper layers of water, where it searches for food – insects, fallen in the water, as it sometimes springs out of the water to catch them. The calmer sections of River Struma in the Zemen Gorge and especially the area of the Skakavitsa Waterfall, as well as the areas near Yabalkovo are perfect for its observation.

Chondrostoma vardarensense The most characteristic feature of this fish species is the position of its mouth – situated on the lower part of the head, along almost its entire width. The mouth resembles a large, crack across the head. Its lower jaw is covered in a cornea, forming a sharp edge. The body is slender, slightly laterally flattened and it reaches a length of 50 cm. A species living in shoals, inhabiting the plan sections of rivers with moderate currents. In springtime it migrates for mating to the upper reaches of the rivers and smaller creeks, where it deposits its caviar. For people, practicing sports fishing along River Struma, this is one of the highlights of the fishing season. Adult fish scrape algae from objects, submerged in the water. While doing that they often turn sideways and the sparkling of their bodies can be easily spotted in the water. Endemic species for the Balkans.

Bulgarian Gudgeon (*Gobio bulgaricus*) A small fish– 12-13 cm, inhabiting River Struma and its tributaries. It prefers rivers with sandy and gravelly riverbeds. It can be observed in calm areas, near large rocks in the water. This species is endemic for the Balkans and is still quite common.

Round-scaled barbel (*Barbus cyclolepis*) one of the most common fish in the rivers in the Western, near-border mountains and River Struma. If you approach cautiously a clear river swift, you will see moderate schools of barbels in the calm areas, near large stones and rocks. Specimens, exceeding 15 cm are rarely observed, but in River Struma individual specimens sometimes reach 25-30 cm. This is one fish species, caught most by sports fishermen in the area. The best places to observe it are River Eleshnitsa in its lower reaches, River Struma in the Zemen Gorge and downstream of it.

Struma stone loach (*Barbatula bureschi*) A small fish (up to 10 cm, 40-60 g) with cylindrical body, covered in tiny scales, hidden under the skin. The pattern is marble, made of large and small dark-brown, irregularly shaped spots. This species was discovered and described for science in River Struma at the Zemen Gorge. It prefers clear and swift waters in rivers with stony riverbeds. It hides under rocks in groups of 3 to 5 specimens. The species is endemic for the Balkans, inhabiting Rivers Struma, Mesta, Vardar and their tributaries. It is protected by the Biodiversity Act. It can be seen in shallow swifts, under small rocks in River Struma and in the lower reaches of its tributaries in the Kyustendil Municipality.

Struma spined loach *Cobitis strumicae* A small, freshwater fish, living near the bottom of the rivers, reaching 10-15 cm in length and weighing up to 15 g. Its body is slender and laterally flattened. It has 6 barbels around its mouth. This species' pattern is brownish with dark spots and dots. It inhabits slowly flowing or standing water with sandy or even oozy bottoms. It can be easily observed in shallow areas near the banks of River Struma with slow-flowing water. If you look carefully, you will see numerous specimens, swimming short distances, and then digging themselves again in the ooze or sand on the bottom. The Struma spined loach is nocturnal and it feeds on tiny invertebrates. If you catch it, you may feel a slight pricking from the small spikes on the infraocular bones. This gives this fish the name (in Bulgarian it is called “щипок” or spiker). This species is endemic for the Balkans and it is included in the Global Red List of the International Union for Conservation of Nature.



This publication has been produced with the assistance of the European Union through the Interreg-IPA CBC Bulgaria-the Former Yugoslav Republic of Macedonia Programme, CCI No 2014TC16I5CB006. The contents of this publication are the sole responsibility of Municipality of Kyustendil and can in no way be taken to reflect the views of the European Union or the Managing Authority of the Programme.