## Coexisting with the Danube Salmon

Interview with the Gregor Gravogl from the Lower Austrian State Fisheries Association

CG (Christina Gruber): Welcome to Fishy Podcasts!
In this episode, Gregor Gravogl, Managing Director of the Lower
Austrian State Fisheries Association, gives us an insight into the
world of the Huchen (Danube salmon, *Hucho hucho*), the diverse areas
of activity of the association to protect our flowing waters and
what it means to coexist with its habitat.

Dear Gregor, welcome to Fishy Podcasts, let's get straight to the Huchen. Can you still remember your first encounter with a huchen?

GG (Gregor Gravogl): My first encounter with a Huchen was as a little boy on the Pielach river. A huchen was caught there and it was really impressive to see such a huge fish. The 15kg fish snatched wildly at the bait, but it was a win for fish as it managed to escape. It was a great experience that I will never forget.

CG: Could you describe the Huchen for us?

GG: The huchen is one of the largest salmonid fish, only the king salmon can grow larger and the taimen, which is native to Mongolia, but this is a different species. The Huchen, which is found here, Hucho hucho, undertakes spawning migrations over short distances, like the trout, and then spawns on suitable spawning grounds.

CG: The current population figures for the Huchen are constantly falling, or rather, the Huchen is on the brink of extinction, what are the reasons for this?

GG: The habitat of the Huchen has been very fragmented for many, many years. It has been cut up because we live in a cultivated landscape that is characterized by various construction measures. Natural river stretches have been driven into narrow channels due to hard obstructions in which the river could no longer expand and many of the spawning areas and pools, deeper places in the river for protection, no longer exist and put the Huchen under a lot of pressure.

CG: What can we do to protect the Huchen?

GG: I think that in Lower Austria, or Austria in general, there is a very good idea that certain things can be protected if they are utilized. Before species protection, animal welfare and nature conservation, there was only one stakeholder who was committed to this, and that was the fishing industry. There was nothing else! The fishing industry did try to preserve this habitat, but of course there were also other utilization interests that were less sustainable.

A core element of fishing in Austria is conservation. That means you have to preserve the fish population, which has probably also contributed to the fact that the Huchen and other fish species still exist today. It is important to accept that we live in a cultural landscape. Austria is a small country with many bodies of water and a multitude of uses that culminate. Fishing is one of the uses that can help to maintain species conservation.

CG: What about the Huchen's enemies?

GG: The enemies of the Huchen are mainly of anthropogenic origins. The cutting up of their habitats and the regulation of the river lead to a loss of spawning grounds due to migration barriers and too low water levels due to the extraction of river water for the mill creeks. Another factor is water pollution, through industries and agriculture.

CG: What effects of climate change do you already experience in the Traisen today?

GG: The water situation has become more critical in recent years, partly due to the climate. But hydropower operators are also currently seeking closer contact with the fishing industry. There is now a greater awareness that excessive use of water power causes problems for the fish population, including the Huchen, and the Traisen itself. This is an important approach to accepting that there is also someone else. There are different utilization interests that also require less water to be used in order to protect other resources and rights. If this works, we have taken an important step towards more sustainable use.

During hot spells, for example, there has been a heat alarm plan since 2018, for which we have been working closely with the state of Lower Austria. During longer periods of heat, when fish mortality and low water levels are imminent, weir operators are contacted to release more water. This works very well and is the right approach.

CG: How do the Huchen react to these climate changes and the increased temperatures in the river?

GG: We know from experience that they cope much better with slight increases in temperature than for instance the brook trout. The Huchen in the barbel region can still stand slight deficits in summer. However, if the water temperatures rise so high and over a long period of time without any cooling. The oxygen saturation sinks and can cause massive damage to the fish population. We experienced this years ago when larger Huchen died because the heat lasted too long. This also gave rise to the heat emergency plan, so that these critical situations can be survived. When you see a 12-13 kg huchen that has died with its gill covers splayed out, it is very upsetting.

CG: What is the current habitat of the Huchen in the Traisen?

GG: The Huchen need different habitats in order to survive. They need shallow water zones for spawning with the appropriate grain size to create its spawning bed, where the Salmon Wedding can take place. In addition, they require deeper places to retreat in hot

weather, and larger stones in the river. The Huchen tolerates slight turbidity and increased water temperatures quite well, but what it cannot tolerate is if its habitat is detached due to migration barriers and river enforcements. Important steps have already been taken to give the river more space again, but there is still a lot to do!

CG: What can we learn from the Huchen?

GG: We can learn from the Huchen that we should value nature more! Because we all live in it. We live in an environment that allows us to strive if we also protect it. If we don't try to coexist with other species, and our environment, then we could end up with a big problem.

CG: This was the second edition of the Fishy Podcasts for the project "Huchenhochzeit - The Danube Salmon's Wedding". In which Gregor Gravogl was able to show us how mindful use can also take on protective functions and what measures are necessary to save the Huchen in the Traisen from extinction.

Thank you for listening and take care!