

Zaustavljanje gubitka biološke raznolikosti – mladica (*Hucho hucho*) u Dunavu

Halting the loss of biodiversity – the Huchen in the Danube

The Convention of Biological Diversity (CBD) and the Biodiversity Strategy of the European Union (EU) set ambiguous target to be achieved until the year 2020. CBD asks for a considerable reduction of the loss of biodiversity and the EU ask for halting biodiversity loss and even restoring degraded biodiversity. While there are many activities to reach the biodiversity goals, it's still a long way to go and governments are asked to intensify their efforts not to fall behind. On the other hand, we actually experience a tsunami of new hydropower plant constructions massively impacting riverine ecosystems, their biodiversity and ecosystem services. The future of rivers does not look bright in Europe and elsewhere. In Europe, one of the most impacted species of this development is the Huchen or Danube salmon *Hucho hucho*. This species, which is the largest salmonid fish of the world, reacts very sensitive to the alternation of ecosystems by hydropower plants. Several major populations have been extirpated by changing rivers into chains of hydropower plants and there is a steady decline ongoing. In contrast to many other fishes, the Huchen is especially sensitive to the massive habitat alternations connected to the transfer of a river to a reservoir and therefore, fish passes don't help. The Huchen has been assessed as Endangered in four independent IUCN assessments since 1990 and it is listed as threatened and is protected by the EU Habitats Directive as well as by all national legislatives.

The global stronghold of the Huchen are the rivers of the Balkans. There are still several large and little impacted rivers flowing from the Dinaric Mountains to the Danube. But our knowledge about the actual distribution and conservation status of the species in that area is poor and not sufficient to identify core areas for its conservation.

To improve our knowledge on the distribution and population specific conservation status of the Huchen, the Faculty of Science, Zagreb (Zoran Marčić), the Faculty of Teacher Education, Zagreb (Marko Čaleta), IUCN FFSG (Jörg Freyhof) and IUCN SSG (Steven Weiss) organized a workshop to assess and discuss the distribution and conservation status of *Hucho hucho*. 17 Experts from seven countries (Germany, Austria, Slovenia, Croatia, Serbia, BiH and Montenegro) came together at the Ecological Station of the Department of

Biology of the Faculty of Science in Zagreb between the 13th-15th May 2014 in Ježević, Croatia to discuss the topics mentioned above as well as future monitoring guidelines and actual projects and campaigns (Fig 1.). During the workshop, it became obvious that there are still considerable populations of Huchen in the area, but many populations are depleted by illegal fishing and several have been lost through hydropower plant constructions. Significant threats not only come from large dams but also from fast developing so called "small" or "baby" hydropower plants which are constructed in smaller tributaries. While there are examples that low population abundance due to overfishing can be fast overcome, if there is appropriate implementation of conservation measurements, the massive threat from future hydropower plant construction will mean the very end of most Huchen populations. All participants agreed, that the negative impacts of hydropower plant constructions are difficult to be mitigated and we need future research to assess the possibilities for biodiversity offsets in Huchen conservation. The outcome of the workshop will be summarized in a publication as starting point for the harmonization of legislation and for the successful Huchen conservation.

Zoran Marčić, University of Zagreb
Danilo Mrdak, University of Montenegro
Dragana Milošević, University of Montenegro
Predrag Simonović, University of Belgrade
Marina Piria, University of Zagreb
Belma Kalamujić, Institute for Genetic Engineering and
Biotechnology, Sarajevo
Tea Tomljanović, University of Zagreb
Meta Povž, NGO Umbra, Ljubljana
Avdul Adrović, Faculty of Science, Tuzla
Senad Šljuka, Faculty of Science, Sarajevo
Milorad Mrakovčić, University of Zagreb
Aljoša Duplić, State Institute for Nature Protection, Zagreb
Boris Hrašovec, University of Zagreb
Miha Ivanc, Fisheries Research Institute of Slovenia, Ljubljana
Daša Zabric, Fisheries Research Institute of Slovenia, Ljubljana
Steven Weiss, IUCN FFSG, University of Graz
Jörg Freyhof, IUCN FFSG, Leibniz-Institute of Freshwater
Ecology and Inland Fisheries, Berlin



Slika 1. Sudionici simpozija

Fig 1. Participants of the symposium