

Preface: Proceedings of the II International *Hucho* Symposium. Species of the genus *Hucho* Günther, 1866 – population status, conservation, biology, ecology, genetics, and culture, Łopuszna, Poland, September 19-22, 2012

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The species of the genus *Hucho* are the largest of the salmonids, and in the mid nineteenth and early twentieth centuries catches of Danube huchen *Hucho hucho* (L.) as large as 50 kg and Siberian taimen *Hucho taimen* (Pall.) of 100 kg were not uncommon. Strong fishing and poaching pressure were spurred on by this genus's large size. The late sexual maturation of these species renders their populations susceptible to exploitation, and other principal threats to them include river fragmentation and channelization linked with dam reservoirs, weirs, and high thresholds, rapid water discharge from dam reservoirs, river bed gravel and sand exploitation, catchment area deforestation that leads to decreased water retention, increased water pollution from industrial and communal wastewaters, floatation water discharge (mainly from Siberian gold mines), and drastic decreases in the abundance of fish species that

comprise their food supplies. Additionally, in many regions where these species occur, legislation for the rational management and controlled exploitation of these species is lacking. Separately and combined, these factors have resulted in either the extinction or near extinction of members of this genus in many rivers within its natural distribution range, and this is why the *Hucho* species are classified as most endangered both locally and globally. The situation of the Danube huchen, which is threatened by extinction in the rivers of the Danube catchment area, is critical (Holčík 1995); this has been confirmed during several international conferences on the subject (Randik 1976, Harsányi 1994, Witkowski and Profus 2013). The situations of *H. taimen* and *Parahucho perryi* are similar (Rand 2013), and Siberian taimen and Sakhalin taimen are also critically endangered. The situations of Korean taimen *Hucho ishikawae* (Mori) and Sichuan taimen *Hucho bleekeri* (Kimura) are likely no better, but information on these species is very scanty mainly because of their limited distribution.

The University of Wrocław, the Polish Angling Association, and the Inland Fishery Institute in Olsztyn, organized the II International *Hucho*

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Symposium with the intent of inviting leading representatives from all the countries and regions in which *Hucho* species occur. The result was the gathering together of seventy scientists and ichthyologists from nineteen countries who are intent on preserving these beautiful fish. This issue of the *Archives of Polish Fisheries* presents sixteen papers, and it is our hope that this selection from the numerous symposium presentations along with the fruits of the many discussions held during the symposium will give rise to new solutions and concepts that will help in the fight to preserve these magnificent fish for future generations. We now direct the conclusions drawn by the participants of the Symposium to commercial and recreational fisheries organizations and to the relevant ministries which are, together, responsible for conserving and protecting the Danube huchen in all areas where it occurs.

1. The participants of the II International *Hucho* Symposium underscored the endangered status of all the species of the genera *Hucho* and *Parahucho* that are threatened to varying degrees within their natural distribution ranges.
2. For European species (*Hucho hucho*), the strategy requires efforts to restore rivers and streams that have been altered significantly to more natural states in addition to *ex situ* conservation.
3. At present, while the conservation of the species *Hucho taimen* and *Parahucho perryi* in the Far East can be conducted feasibly *in situ*, more rational commercial and recreational fisheries exploitation of these resources is urgently required.
4. When introducing or restoring species of the genera *Hucho* and *Parahucho*, the genetic makeup of isolated subpopulations must be considered.
5. All *Hucho hucho* breeding centers must be inventoried to determine the genotype of the spawning stocks and stocking material intended for particular regions of the Danube system. Similar principles should also be adopted with other *Hucho* species.
6. Detailed genetic and biological studies of species, which must include determining the microhabitats required for all life cycle stages using telemetric methods, and developing appropriate breeding methods are recommended for all *Hucho* species.
7. Data remains incomplete regarding the current situation and many aspects of the biology of two endemic species – Sichuan taimen (*H. bleekeri*) and Korean taimen (*H. ishikawae*), which are distributed in the limited areas of Sichuan Province and the Yalu River that forms the border between North Korea and China.
8. The Symposium participants concluded that it is imperative to develop more fully international cooperation in scientific studies and practical measures to protect all members of the genera *Hucho* and *Parahucho*.
9. The Symposium participants congratulated commercial and recreational fishery organizations in Poland for their long-term, successful contributions to preserving *Hucho hucho* as a member of Polish ichthyofauna.
10. The II International *Hucho* Symposium participants challenged governments to take responsibility for conserving and preserving the extraordinary fish species of the genera *Hucho* and *Parahucho* that occur within their borders.

This volume of the *Archives of Polish Fisheries* is dedicated to the memory of Professor Juraj Holčík (1934–2010), a great friend and a great ichthyologist who worked tirelessly to save the Danube huchen. Prof. Holčík published many papers on the Danube huchen, but perhaps his most influential work was his co-authorship of the wonderful monograph *The Eurasian Huchen, Hucho hucho – the largest salmon in the world*. We would also like to extend our gratitude to Mieczysław Kowalewski, an ambitious salmonid breeder, whose achievements have contributed significantly to the success of the Polish huchen. Without Mr. Kowalewski's efforts, it would not be possible to publish as many papers on Polish huchen, just as it would not have been possible to hold the Symposium in Łopuszna.

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