

ACTION PLAN FOR SAKHALIN TAIMEN CONSERVATION

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Sakhalin taimen *Parahucho perryi* (Brevoort, 1856) is the largest of salmon and generally one of the largest fresh-water fishes on the planet. Only representative of the monotypical genus *Parahucho* (Glubokovsky, 1995). Initial small number and low ability to reproduction promotes the rapid disappearance of local populations under increasing anthropogenic pressure. Rate of decrease in number is estimated at 15-20% a year (Semenchenko, Zolotukhin, 2011), and the effective size of most populations less than 50 individuals (Yurchenko, 2015).

It is included in Red Books of Russian Federation, Sakhalin region and Primorsky Krai, and also in the IUCN Red List on category Critically Endangered A4abcd (Rand, 2006). In 2013, with participation of the Sakhalin Taimen Conservation Network (STCN), species included in group of the animals that are subject to special protection. For the Russian part of the area, the main cause of the plight of survival of populations is not the deterioration of the natural environment but excessively high mortality under the influence of poaching, amateur fishing and by-catch in commercial fisheries for other species.

With participation of STCN and local experts we have been carried out the expert assessment of rate threats to Sakhalin taimen populations of Sakhalin Northeast by Delfi method (ISO/IEC 31010). All experts independently from each other have specified poaching by nets in the rivers and lagoons as the main threat for species, an average assessment – $62,0 \pm 2,5\%$. Different types of amateur fishing give an assessment $18,7 \pm 4,2\%$, and by-catch – $12,8 \pm 5,5\%$.

Then calculation of probability of extinction of populations for three generations (about 50 years) is made, also using expert estimates. According to the theory of decision-making the tree of decisions taking into account an economic component is constructed. The most effective option turned out to be a comprehensive program with the organization seasonal protection from poaching in key areas and at the same time work with the target groups influencing the population (local anglers, fishing tourists, fishermen). As at amateur fishing and commercial fishing of an individual of a taimen mostly caught in a live, this work can be based on social and psychological methods of behavior change (Smolova, 2010).

Sakhalin taimen is a "flagship" species which representatives from the human point of view have spiritual, esthetic and recreational value (Karavanov, 2008). With use of such species the international organization "Rare" in many countries of the world applies technology of public campaigns "Pride" to obtaining conservation results (Butler et al., 2013). The taimen is offered by a live symbol of conservation salmon of the South Far East and the environment of their habitat.

Besides the action plan for conservation of the Sakhalin taimen has to include programs of monitoring with the non-contact accounting of spawners number and the analysis of migration history (Rand, Fukushima, 2014), habitat inventories (Fukushima et al., 2011), reintroduction of the disappeared populations with application of artificial reproduction, considering population and genetic structure (Zhivotovsky et al., 2015).

We are offered the creation of Sakhalin Taimen non-profit organization and the development of regional target program with off-budget financing generally from donations of the companies of oil and gas sector having interests in the Sakhalin Northeast.