



Agenda Item 5.2  
For Information

**Council**

**CNL(15)46**

***Transferring Atlantic salmon above the hydropower dam in the Kola Peninsula, Russia***



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The large River Tuloma system discharges into the Barents Sea in the Murmansk region, the Russian Federation (Figure 1). The topmost tributaries of the system begin in Finland. With construction of the Upper-Tuloma dam for hydro-electric power generation Atlantic salmon migration routes were interrupted. Salmon stocks are now dependent on the tributaries below the dam. Following a few earlier projects looking into possibilities to re-build the salmon populations in the upper parts of the system, a joint Russian-Finnish pilot project was conducted in 2014 to study the feasibility of adult salmon transfers over the Upper-Tuloma dam and investigate their spawning migration.

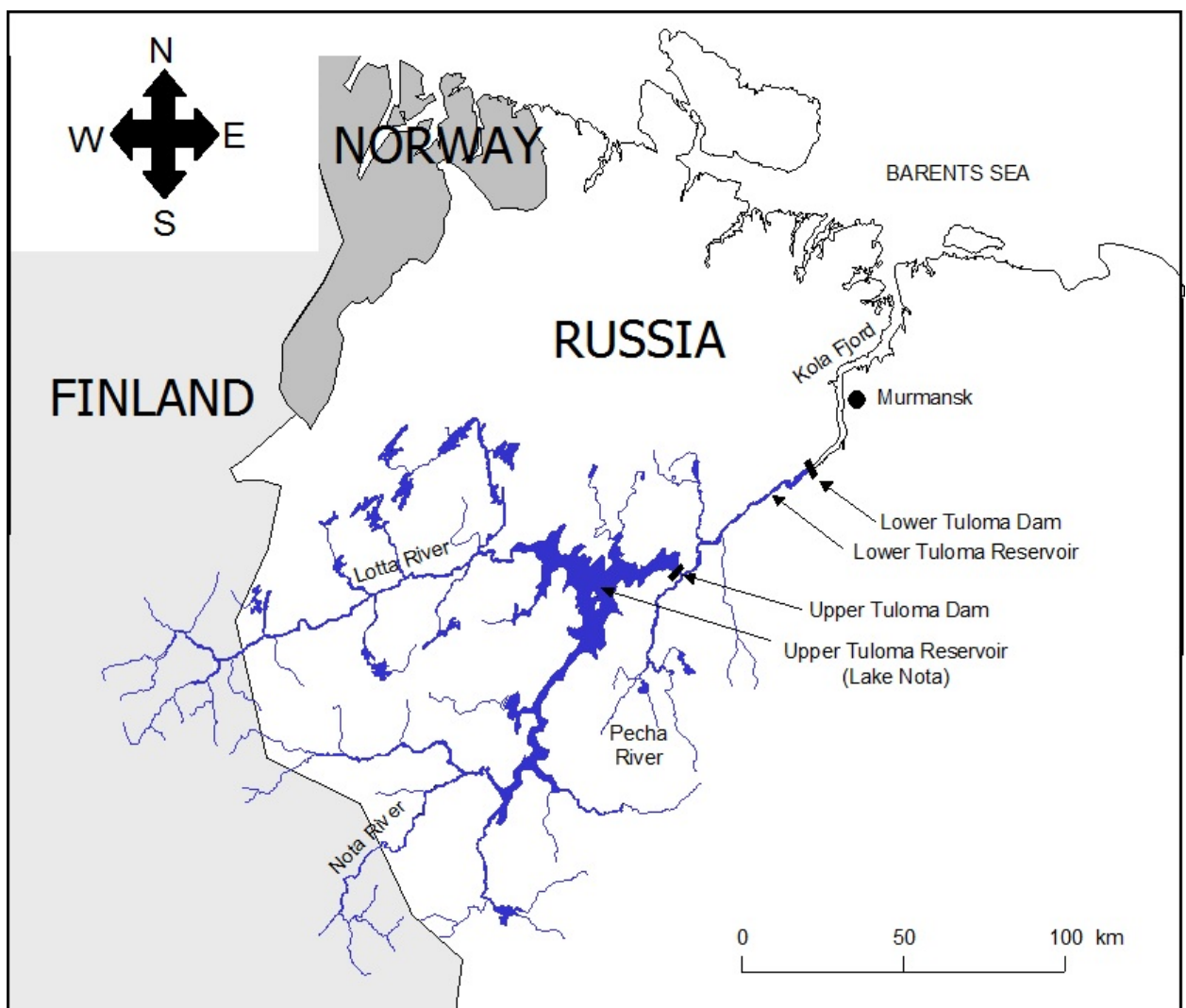


Figure 1 – A map showing the River Tuloma system.

In total, 50 wild Atlantic salmon were taken from a fish ladder at the Lower-Tuloma dam and radio-tagged intra-gastrically. In late August, the fish were transported upstream by a truck for over 200 km and released to the Lotta/Lutto River. Two automatic logger stations were installed

on the Finnish side. In addition, manual tracking by portable receiver was regularly conducted on the Finnish side and once on the Russian side. Ten salmon (20%) were detected by the loggers on the Finnish side. On the Russian side the location of tagged salmon was observed from a raft boat over a 30 km stretch around the place of release. In total 25 salmon were found in this area. Among them 15 fish occurred at the rapids just 0.1-2.0 km upstream from the release site. Other 10 fish were found downstream and occurred separately from each other. In total, 33 tagged salmon were detected within the study period.

The tagging experiment showed the good potential for transportation of wild salmon by trucks in the future for activities attempting to start salmon stock-rebuilding to the upper parts of the Tuloma system. However it is stressed that it is also necessary to study conditions for smolt passage downstream.