

## **Methods and Techniques for Lower Danube Sturgeon Monitoring Used for the Assessment of Anthropogenic Activities Pressures and the Quantification of Risks on These Species**

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**Abstract :** At present, on the Lower Danube, different types of pressures have been identified that affect the anadromous sturgeons stocks with an impact that leads to their decline. This paper presents techniques and procedures used by Romanian experts in the tagging and monitoring of anadromous sturgeons, as well as unique results at international level obtained on the basis of an informational volume collected in over 7 years of monitoring on these species behavior (both for adults as well as for ultrasonically tagged juveniles) on the Lower Danube. The local impact of hydrotechnical constructions (bottom sill, maritime navigation channel), the global impact of the poaching phenomenon and the impact of the restocking programs with sturgeon juveniles were assessed. Thus, the bottom sill impact on the Bala branch, the Bastroe Channel (cross-border impact) and the poaching phenomenon at the level of the Lower Danube was analyzed on the basis of a unique informational volume obtained through the use of patented monitoring systems by the Romanian experts (DKTB respectively, DKMR-01T). At the same time, the results from the monitoring of ultrasonically tagged sturgeon juveniles from the 2015 repopulation program are presented. Conclusions resulting from research can ensure favorable premises for finding some conservation solutions for CITES-protected sturgeon species that have survived for millions of years, currently being 1 species on the brink of extinction - Russian sturgeon, 2 species in danger of extinction - Beluga sturgeon and Stellate sturgeon and 2 species already extinct from the Lower Danube, namely common sturgeon and ship sturgeon.

**Keywords :** Lower Danube, sturgeons monitoring (adults and juveniles), tagging, impact on conservation

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