

National Sturgeon Management Plan

(To implement the Regional Strategy
for the conservation and sustainable management
of sturgeon populations in the NW Black Sea and Lower Danube River
according to CITES)
(v. 03 of 04/25/2006)

Preamble

In accordance with CITES Resolution Conf 12.7, representatives of Fisheries and CITES Management Authorities of NW Black Sea and lower Danube River countries, which met in Tulcea on 24 - 27 November 2003, agreed on a **Regional Strategy** on conservation and sustainable management of sturgeon populations in the NW Black Sea and Lower Danube.

On May 19, 2004 representatives of DCDBB / MWEF , CNAFP and DDBRA signed the regional agreement on implementation of this Strategy in Romania.

Recommendations of the Sturgeon Management Meeting (SMM), DDBRA Tulcea, 25.08. 2004:

Priority of actions:

(I) - Urgent / 1 year

(II) - short term / 3 - 5 years

(III) – medium term/ 5 - 8 years

(IV) – long term / 8 - 15 years

- The Management Plan serves to justify requests for funding of actions by the two administrations of the sturgeon fisheries of Romania as well as other local and foreign donors (MER Research Programs bilateral EC Commission, CITES, FAO, GEF, etc.).

- The plan will be reviewed periodically / as many times as needed in the SMM.

A. Actions:

1. Gather current information on the biology of sturgeon populations

1.1 Adopt uniform collection techniques for studies of population (estimates of the age / growth, structure length, etc.). (I) (ICDEAPA, INCDDD)

1.2 Choose zones of river / sea where research / evaluation of the species biology and status have to be done. (I) (ICDEAPA, INCDDD)

1.3 Study and clarify the existence of "homing" and "imprinting" the phenomenon. (II) (INCDDD)

1.4 Study / behaviour of early life stages in all species and populations. (II) (INCDDD)

2. Protection of essential habitats

2.1 Identification of critical seasonal habitats, threats to key habitats and opportunities for rehabilitation and their protection. (II) (ICDEAPA, INCDDD, INCMGA)

2.2 Assessment of seasonal behaviour of adults in N-V Black Sea (II - III) (INCDDD)

2.3 Study of breeding behaviour downstream the Iron Gates II dam. (II - III) (INCDDD, ICDEAPA)

2.4 Study the possibility and feasibility of building fish passages at the Iron Gates I and II dams (III)
(INCDDD, ICDEAPA, Univ. Galati)

2.5 Assessment of improvement projects and habitat protection projects already implemented. (III - IV)

2.6 Assessment of habitat needs of different (sub -) populations. (III) (INCDDD, ICDEAPA)

3. Conservation and recovery of populations of threatened species

3.1 Central public authority for environmental protection and water management and central public authority for agriculture, forestry and rural development implementing measures for the conservation and restoration necessary to avoid species extinction (I - III).

4. Genetics, artificial propagation, (re)stocking / reintroduction

4.1 Conduct studies to identify sub-species of sturgeon populations which spawn in the lower Danube River.
(II) (INCDDD)

4.2 Research for recovery, rehabilitation and reintroduction of endangered sturgeon species. (II) (INCDDD Tulcea, ICDEAPA, Univ. Galati)

4.3 Take steps to ensure exclusive use of brood stock from native populations, preventing unauthorized stocking and escape of industrial hybrids into the Danube River. (I) (DDBRA, NAFA, CITES SA)

4.4 Develop a system of genetic control of production in sturgeon hatcheries and farms. (II) (INCDDD, ICDEAPA)

4.5 Organization of CITES regional meeting in Romania to discuss and harmonize national supportive stocking programmes with young sturgeons of endangered species, having deficient / lacking reproduction in the wild (I).

4.6 Ensuring conservation of sturgeons / maintaining their genetic diversity by controlling the number of specimens, the way of capture and use of live sturgeon brood stock, their artificial propagation methods, the method of recording and marking of brood stock and young sturgeon for restocking and / or supportive stocking (I).

4.7 Experimental stocking of young sturgeons to find optimal places and period for releasing individually tagged young sturgeon in the Danube River, monitoring their migration to the sea, distribution and evaluation of their survival in the Black Sea, to use such information by stocking programmes of countries in the region (I - II).

4.8 Orient supporting stocking efforts to endangered species: Russian sturgeon (*Acipenser gueldenstaedti*), beluga (*Huso huso*) and stellate sturgeon (*A. stellatus*)(I). (NAFA, INCDDD Tulcea)

4.9 Designation of Romanian specialists to be part of the Regional Committee of Experts to coordinate regional activities derived from section 1. 3 Strategy, on genetics, artificial breeding, restocking / reintroduction) (I) (MWEF , DDBRA, NAFA)

5. Information on catch and organization of fishing

- 5.1 Improve the current regional monitoring system (RMS) (**Annex A**) of stocks and sturgeon fisheries, adopted by Black Sea Sturgeon Management Action Group (**BSSMAG**) in 2002, and sending it to all countries in the region (I) (ICDEAPA, INCDDD)
- 5.2 Determination of the regions where sturgeon are caught incidentally in other fisheries (not authorized for sturgeon), which could be reduced or closed in the future (I) (DDBRA, NAFA)
- 5.3 Updating the website "Sturgeons in Romania and CITES" on which is recorded in real time (2-3 days) each sturgeon caught in the region. (I - IV) (DDBRA, NAFA)
- 5.4 Conducting literature research on sturgeons, operation similar to the initiative of IADR (Reinartz, 2002) and, more recently, the American Fisheries Society (Fisher & Burroughs, 2003) (III) (INCDDD, ICDEAPA)

6. Stocks of different sturgeon species

- 6.1 Genetic research to distinguish populations of sturgeon in the Sea of Azov and the Black Sea NV. (II) (INCDDD)
- 6.2 Develop individual management plans for various sub-populations (identified in section A 3.1) for each species. (II - III) (DDBRA, NAFA)
- 6.3 Research to develop an assessment system for diadromous migratory stocks of sturgeon species in the Lower Danube and NW Black Sea. (III) (INCDDD, ICDEAPA, INCDMGA)

7. Regulations and their implementation

- 7.1 Participation in the development of a regional system of DNA-based identification of sturgeon and sturgeon products in trade (II) (INCDDD)
- 7.2 Harmonization of closures periods for a better correlation with the biology of species (I - II) (DDBRA, NAFA)
- 7.3 Avoiding and correcting fishery practices which capture sub-adults or juveniles (I - II) (DDBRA, NAFA)
- 7.4 Restriction / elimination of the practice of fishing during breeding seasons intended for artificial reproduction. (II - III) (DDBRA, NAFA)
- 7.5 Initiate the organization of a national / regional information system via the internet for cases of violation of regulations on sturgeons. (II) (NAFA, DDBRA) ¹
- 7.6 Initiation of a normative act on the application of CITES labelling and domestic / national control system of sturgeon products (including caviar), to implement CITES Resolution Conf 12.7 (I) ²
- 7.7 Identification of effective measures to combat poaching and illegal trade and implementation of these measures when needed. (I - IV) (DDBRA, NAFA)

¹Reinartz, R. - 2002 - Sturgeons in the Danube River. Biology, Status, Conservation. Literature Study. **IAD, Bezirk Oberphalz Landesfischereiverband Bayern**, 15p

Fisher, W. L., Burroughs, J. P. - 2003- Stream Fisheries Management in the United States: A Survey of State Agency Programs. **Fisheries**, vol. 28: 10 -18

8. Adaptive management according to CITES

- 8.1 Harmonization of national legal framework to enable implementation of CITES Resolution Conf 12.7
- 8.2 Maintain BSSMAG as an advisory body and working to develop regional protocols, including monitoring and evaluating the status of stocks and natural reproduction of sturgeon in the region. (I - IV) (MWEP)
- 8.3 Organise bi-annually sturgeons management meetings in Romania under CITES. (I - IV) (MWEP, DDBRA, NAFA)
- 8.4 Designation of Romanian negotiators to complete the agreement on the principles and criteria for allocation of catch quotas among countries in the region. (I) (MWEP, DDBRA, NAFA)
- 8.5 Transmission by BSSMAG Romania, according to the schedule of deadlines, data on monitoring of sturgeon populations and fisheries, the proposed national and regional catch quotas allowing the survival of species, and observations on the proposed quotas of countries in the region . Communication of these shared quota proposals to the CITES Secretariat by 10 January each year. (I - IV) (BSSMAG)
- 8.6 Start organizing a regional database on management of sturgeon stocks, hosted by a website maintained by BSSMAG. (II) (MWEP , DDBRA, NAFA, INCDDD, ICDEAPA)
- 8.7 Monitoring socio-economic aspects of fisheries for sturgeons in Romania, including data on the websites of both fishery administrations and consider these issues when developing adaptive management plans. (I - IV) (DDBRA, NAFA)

B. Review and implement the Plan

1. Participation via BSSMAG in an exchange of information on national management plans. (I - IV) (DDBRA, NAFA)
2. Organizing SMM to assess implementation of the Plan and, where necessary, to undertake its review. (I-IV) (MWEP , DDBRA, NAFA)

C. Financing actions of the Plan

1. Identifying funding sources and determining resource needs to implement the Regional Strategy and National Management Plan (I) (DDBRA, NAFA)
2. Develop proposals to ensure funding for implementation of activities related to Regional Strategy and Management Plans. (I - IV) (R & D institutions in Romania and fisheries authorities)
3. Requesting assistance of CITES Secretariat to help ensure financial resources from Parties, specialized UN organizations, FAO, intergovernmental organizations, NGOs and industry. (I - IV) (NAFA).

**Monitoring system
of effects of current catch quotas on sturgeon stocks**

Species monitored: *Acipenser ruthenus*, *A. stellatus*, *A. gueldenstaedti* and *Huso huso*

Indicators	Location	Timing	Reason
1. Fisheries information			Characteristics of sturgeons captured by licensed professional fishermen; CPUE in selected fishing sites; RRA of real captures
1.1 Number of fishermen licensed to fish sturgeons, including number of fishing boats and gears (gill nets, trammel nets, baited and un baited hook lines, etc)	Black Sea and Danube River	Jan. – Dec.	To evaluate catch / fisherman
1.2 Number of fishing hours using standard gillnets of 100 m	Black Sea and Danube River	Jan. – Dec.	For CPUE calculation
1.3 Number of fish captured	Black Sea and Danube River	Jan. – Dec.	For CPUE calculation
1.4 Catch / species / fishing zones	Black Sea and Danube River	Jan. – Dec.	For CPUE calculation and Evaluation of catch / river Km
1.5 CPUE	Black Sea and Danube River	Jan. – Dec.	To appreciate trend of abundance
1.6 Sex ratio	Black Sea and Danube River	Jan. – Dec.	Should be normally close to 50 % / 50%
1.7 Distribution of length frequencies	Black Sea and Danube River	Jan. – Dec.	Gives an indication about % of first spawners and degree of fishing pressure
1.8 Distribution of age frequencies	Danube River Km 100 – 130 *	Jan. – Dec.	Shows % of fish spawning repeatedly and status of meta-population in the Black Sea
1.9 RRA of captures in 5 selected fishing sites	.Black Sea 1. St. George Danube: 2. R Km 125 3. R Km 238 4. R Km 480 Borcea branch: 5. Km 40	Nov.	To evaluate legal and illegal capture and compare it with official statistics
2. Fisheries - independent information			
2.1 Number of downstream migrant juveniles [CPUE]	Danube River Km 100**	April – Oct.	To monitor spawning success and evaluate strength of current year class / recruitment

* In this area, about 45% annual catch of sturgeons caught in Romania

** Monitoring Station will be build by DDBRA Tulcea (2006 - 2008) and will begin work at Isaccea in 2009

*** The length means the length (rounded to the nearest cm) from tip of rostrum to tip of upper lobe of the caudal fin

CPUE - catch per unit effort (fishing)

**** Research conducted so far on the Danube River, has shown the additional need to monitor the following areas:

- Mm 54 / KM 100 April – October. - To monitor the success of natural reproduction - Assess the size of age class of that year Km 167 - downstream confluence with Măcin arm;

- km 238 Giurgeni - Vadu Oii - Borcea arm confluence with the Danube;

- Km 37-44 (**Borcea arm**) in the municipality Fetești:

 km 37-41 - favourable area for adult sturgeon catch;

 km 42 to 44 - Monitoring juvenile sturgeon;

- Km 300-302 Cernavoda - cooling water discharge upstream of Nuclear Power Plant Cernavoda;

- Km 374.5 - upstream Călărași;

- downstream Iron Gates II.

Proposed areas are meant to monitor the migration of sturgeon populations and young of the year resulting from natural spawning.