An approach to winning fishermen’s support for sturgeon conservation in the Lower Danube region: the case of “Sturgeon Advocates”

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Sturgeons in the Lower Danube region

In the EU, the Lower Danube region is the only area with still viable sturgeon populations

Of 6 native sturgeon species, 5 are Critically Endangered

Illegal fishing and trade are main direct threats

EU LIFE project 2012-2015 of WWF in Romania and Bulgaria
Fishing communities - the situation

Along the Lower Danube there is a **long tradition** of catching sturgeons

Selling meat and caviar provided **important income**

Collapse of sturgeon stocks led to **fishing bans**

**No compensation or other support** provided to communities

**Hardly any alternative income sources**
Fishing communities - the starting position

Support by fishermen is crucial for sturgeon protection, but in many communities, there is **little awareness and acceptance**.

Many fishermen feel treated unfairly by state institutions and are **negative towards conservation measures**.

**Specific approach** is necessary to raise knowledge, awareness and understanding and win support of fishermen.
Fishing communities - the approach of “Sturgeon Advocates”

Local colleagues act as personal communicators to build up relationships with fishermen.

34 villages along the Lower Danube and its delta in Romania and Bulgaria.

15 of these were target villages and visited 4-10 times.

750 individual conversations with app. 500 fishermen.
Fishing communities – the approach of “Sturgeon Advocates”

First visits were very **difficult** (denial, distrust, hostility)

**Various strategies** to get in contact – directly visiting fishing sites, through fishing associations, relevant authorities, etc.

**Repeated visits, consistent interactions & patience** were necessary

**Getting to know problems and knowledge**

**Active support** (alternative income options; training fishermen in monitoring techniques)
The results - relevance of fishing

In total, **122 interviews** with fishermen at beginning and end of project

In 2015, **fishing more important for livelihood**, providing a big part of income to 27% in BG (11% in 2013) and 33% in RO (7% in 2013); only 7% in BG and 12% in RO live entirely from fishing

<table>
<thead>
<tr>
<th>Income from fishing</th>
<th>BG fishermen (2015: n = 30; 2013: n = 28)</th>
<th>RO fishermen (2015: n = 33; 2013: n = 31)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire income</td>
<td>11.0%</td>
<td>11.0%</td>
</tr>
<tr>
<td>A big part</td>
<td>26.7%</td>
<td>26.7%</td>
</tr>
<tr>
<td>A small part</td>
<td>40.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>None</td>
<td>64.0%</td>
<td>26.7%</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Income from fishing</th>
<th>Bulgarian fishermen 2013</th>
<th>Bulgarian fishermen 2015</th>
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<tbody>
<tr>
<td>Entire income</td>
<td>11.0%</td>
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<tr>
<th>Income from fishing</th>
<th>Romanian fishermen 2013</th>
<th>Romanian fishermen 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire income</td>
<td>10.0%</td>
<td>33.3%</td>
</tr>
<tr>
<td>A big part</td>
<td>33.3%</td>
<td>76.7%</td>
</tr>
<tr>
<td>A small part</td>
<td>48.5%</td>
<td>48.5%</td>
</tr>
<tr>
<td>None</td>
<td>6.7%</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

In 2015, fishing was more important for livelihood, providing a big part of income to 27% in BG (11% in 2013) and 33% in RO (7% in 2013); only 7% in BG and 12% in RO live entirely from fishing.
The results - knowledge of sturgeons and threats

The results of the surveys made in 2013 and 2015 show an almost 200% increase in correct answers to knowledge questions.

Knowledge of sturgeon species was rather good and still increased:
- in 2013, most RO fishermen (32%) recognized only 1 species
- in 2015, 65% identified 4 (in 2013 only 3% of RO fishermen identified 4)

A bigger number of fishermen in both countries managed to indicate the biggest threats to sturgeons:
- in 2013, the majority (54% in BG, 90% in RO) listed just 1-3 threats
- in 2015, most of them (60% in BG, 67% in RO) listed 5-6 threats
The results - awareness of sturgeon status

BG: 83% feel that **sturgeon stocks decreased** a lot in 2015 (64% 2013)  
RO: less (42%) assume decrease than 2013 (68%)*

*many from key sturgeon breeding areas where restocking took place - perception could be influenced by bycatches
The results - attitude towards sturgeon fishing

More fishermen are categorical that fishing with karmaci (illegal hook-lines to catch sturgeons) and targeted fishing are serious threats to sturgeons

Fishing with karmaci is a threat to sturgeons

<table>
<thead>
<tr>
<th></th>
<th>Completely agree</th>
<th>Mostly agree</th>
<th>Neutral</th>
<th>Mostly disagree</th>
<th>Completely disagree</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>BG 2015</td>
<td>33,3</td>
<td>26,7</td>
<td>20,0</td>
<td>3,3</td>
<td>16,7</td>
<td></td>
</tr>
<tr>
<td>BG 2013</td>
<td>11,1</td>
<td>48,1</td>
<td>3,7</td>
<td>37,0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RO 2015</td>
<td>66,7</td>
<td>6,1</td>
<td>12,1</td>
<td>9,1</td>
<td>6,1</td>
<td></td>
</tr>
<tr>
<td>RO 2013</td>
<td>45,2</td>
<td>29,0</td>
<td>3,2</td>
<td>16,1</td>
<td>6,5</td>
<td></td>
</tr>
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</table>

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

THIS PROJECT IS FUNDED BY THE EU’S LIFE PROGRAMME
The results - attitude towards sturgeon fishing

More fishermen are categorical that fishing with karmaci (illegal hook-lines to catch sturgeons) and **targeted fishing** are serious threats to sturgeons

**Targeted fishing is a threat to sturgeons**

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</tr>
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<tr>
<td><strong>BG 2015</strong></td>
<td>26,7</td>
<td>3,7</td>
<td>16,7</td>
<td>50,0</td>
<td>10,0</td>
<td>3,3</td>
</tr>
<tr>
<td><strong>BG 2013</strong></td>
<td>25,9</td>
<td>3,7</td>
<td>16,7</td>
<td>50,0</td>
<td>10,0</td>
<td>3,3</td>
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<tr>
<td><strong>RO 2015</strong></td>
<td>48,5</td>
<td>6,5</td>
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The results - attitude towards sturgeon fishing ban

The proportion of respondents who viewed the **ban as an effective conservation measure** - if enforced properly - increased from 4% in Bulgaria and 10% in Romania in 2013, to 20% and 39%, respectively, in 2015.

By the end of the project, less fishermen (7% in Bulgaria and 15% in Romania) “completely agreed” with **fishing sturgeons at all costs**, compared with initial attitudes (23% in Bulgaria and 33% in Romania in 2013).
The results - willingness to protect sturgeons

At the end of the project, fishermen expressed much greater willingness to protect sturgeons in various concrete ways and to reduce the negative impact of fishing activities:

• 63% in Bulgaria and 82% in Romania “completely agreed” not to catch sturgeons during their spawning migration (compared to 7% and 33% in 2013)

• 83% in Bulgaria and 91% in Romania “completely agreed” that they would release immature sturgeons (compared to 36% and 81% in 2013)

• 63% in Bulgaria and 94% in Romania “completely agreed” not to use illegal hook lines (compared to 18% and 65% in 2013)
Conclusions

Due to the work of Sturgeon Advocates, fishermen showed increased openness and interest towards conservation activities.

Knowledge of sturgeon issues and understanding of their own responsibility for sturgeon protection have improved.

Much higher awareness of the negative impact of sturgeon fishing and a 40% increase in statements in favour of sturgeon protection.
Outlook

Expansion to larger area – Lower Danube and Black Sea coast (Serbia, Bulgaria, Romanian Ukraine) in new EU project (LIFE FOR DANUBE STURGEONS, 2016-2020)

Many important lessons-learnt are shared and applied

Longer-term commitment: Several communities still very cooperative, in challenging areas (especially Danube delta) considerable progress, in some the cooperation is not yet stable enough

Stronger focus on development of alternative income in fishing communities
Thank you!

www.danube-sturgeons.org