Thymallus thymallus, Grayling

Assessment by: Freyhof, J.

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Taxonomy

<table>
<thead>
<tr>
<th>Kingdom</th>
<th>Phylum</th>
<th>Class</th>
<th>Order</th>
<th>Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animalia</td>
<td>Chordata</td>
<td>Actinopterygii</td>
<td>Salmoniformes</td>
<td>Salmonidae</td>
</tr>
</tbody>
</table>

**Taxon Name:** *Thymallus thymallus* (Linnaeus, 1758)

**Common Name(s):**
- English: Grayling

**Taxonomic Notes:**
A similar species, *T. baicalensis*, has been introduced to Czechia and Slovakia in 1959. It first established a breeding population, but later disappeared around 1975, reportedly as a result of hybridisation with the local *T. thymallus*. Reported genetic variability suggests that at least the Adriatic and Loire populations are distinct lineages, but diagnostic morphological data are not yet available. Because of extensive stocking throughout the northern Adriatic basin it might be too late to investigate the original morphology, variability, genetics, and distribution.

**Assessment Information**

**Red List Category & Criteria:** Least Concern ver 3.1

**Year Published:** 2013

**Date Assessed:** March 5, 2010

**Justification:**
A widespread species with no known major widespread threats.

European Union 27 = LC. Same rationale as above.

**Previously Published Red List Assessments**

- 2008 – Least Concern (LC)
- 1996 – Lower Risk/least concern (LR/lc)

**Geographic Range**

**Range Description:**
Barents Sea basin west of River Ob, White, Caspian, Black, Baltic, White and North Sea basins, Atlantic westward to Loire drainage; Rhône drainage. Introduced in Po and Soca drainages, and over most of southern and central Finland.

**Country Occurrence:**
- Native: Austria; Belarus; Belgium; Bosnia and Herzegovina; Bulgaria; Croatia; Czech Republic; Denmark; Finland; France; Germany; Hungary; Italy; Latvia; Liechtenstein; Lithuania; Luxembourg; Macedonia, the former Yugoslav Republic of; Moldova; Montenegro; Netherlands; Norway; Poland; Romania; Russian
Thymallus thymallus

Range

Compiled by:
Population
Abundant.
**Current Population Trend:** Unknown

**Habitat and Ecology** *(see Appendix for additional information)*

**Habitat:**
Submontane reaches of rivers with a hard sand or stone bottom and well oxygenated, cold and fast-flowing water. In Scandinavia, in clear lakes and semi-anadromous in freshened part of northern Baltic basin. Usually in hollows behind boulders and shaded water under overhanging vegetation. Spawns in shallow stretches (usually 20-40 cm deep) or riffles, with moderate current (about 0.5 m/s) and clean gravel bottom.

**Biology:**
Spawns for the first time at 2-3 years, females usually one year later than males, in northern Europe later than in central Europe. Spawns in early spring, usually in March-April, later in north, when temperatures reach 4-8°C, with a peak at full moon. Adults make short spawning migrations. Lacustrine populations often spawn in lake tributaries. Males start to defend small territories at spawning site in late morning and spawning usually starts in early afternoon at highest daily temperature. Females deposit eggs into substrate. Eggs hatch usually in 10-40 days. Alevins remain in gravel until yolk sack is absorbed (4-10 days). Feeding larvae live 3-4 weeks in open water below surface. Juveniles are benthic, in fast-flowing waters. Feeds predominantly on drifting invertebrates and terrestrial insects.

**Systems:** Freshwater

**Use and Trade** *(see Appendix for additional information)*

It is harvested for human consumption, and for sport fishing.

**Threats** *(see Appendix for additional information)*

No major, widespread threats known but regionally suffers from river pollution, dam constructions and river regulation. In its southern distribution area increasingly vulnerable to climate change. Locally susceptible to high populations of predatory birds.

**Conservation Actions**

No information available.

**Credits**

Assessor(s): Freyhof, J.
Reviewer(s): Kottelat, M. & Smith, K.
Contributor(s): Kottelat, M.
Bibliography


Citation


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External Resources

For Images and External Links to Additional Information, please see the Red List website.
Appendix

Habitats
(http://www.iucnredlist.org/technical-documents/classification-schemes)

<table>
<thead>
<tr>
<th>Habitat</th>
<th>Season</th>
<th>Suitability</th>
<th>Major Importance?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Wetlands (inland) -&gt; 5.1. Wetlands (inland) - Permanent</td>
<td></td>
<td>Suitable</td>
<td>Yes</td>
</tr>
<tr>
<td>Rivers/Streams/Creeks (includes waterfalls)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Wetlands (inland) -&gt; 5.5. Wetlands (inland) - Permanent Freshwater</td>
<td></td>
<td>Suitable</td>
<td></td>
</tr>
<tr>
<td>Lakes (over 8ha)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Use and Trade
(http://www.iucnredlist.org/technical-documents/classification-schemes)

<table>
<thead>
<tr>
<th>End Use</th>
<th>Local</th>
<th>National</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food - human</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Sport hunting/specimen collecting</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Threats
(http://www.iucnredlist.org/technical-documents/classification-schemes)

<table>
<thead>
<tr>
<th>Threat</th>
<th>Timing</th>
<th>Scope</th>
<th>Severity</th>
<th>Impact Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Natural system modifications -&gt; 7.2. Dams &amp; water</td>
<td>Ongoing</td>
<td>Minority (50%)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>management/use -&gt; 7.2.11. Dams (size unknown)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Pollution -&gt; 9.1. Domestic &amp; urban waste water</td>
<td>Ongoing</td>
<td>Minority (50%)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-&gt; 9.1.3. Type Unknown/Unrecorded</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Pollution -&gt; 9.2. Industrial &amp; military effluents</td>
<td>Ongoing</td>
<td>Minority (50%)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-&gt; 9.2.3. Type Unknown/Unrecorded</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Pollution -&gt; 9.3. Agricultural &amp; forestry effluents</td>
<td>Ongoing</td>
<td>Minority (50%)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-&gt; 9.3.4. Type Unknown/Unrecorded</td>
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</tbody>
</table>

Additional Data Fields

Population
Population severely fragmented: No

Habitats and Ecology
Movement patterns: Full Migrant

http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T21875A9333742.en
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