Sinanodonta woodiana, Chinese Pond Mussel

Assessment by: Cummings, K.

View on www.iucnredlist.org


Copyright: © 2015 International Union for Conservation of Nature and Natural Resources

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this publication for resale, reposting or other commercial purposes is prohibited without prior written permission from the copyright holder. For further details see Terms of Use.

The IUCN Red List of Threatened Species™ is produced and managed by the IUCN Global Species Programme, the IUCN Species Survival Commission (SSC) and The IUCN Red List Partnership. The IUCN Red List Partners are: BirdLife International; Botanic Gardens Conservation International; Conservation International; Microsoft; NatureServe; Royal Botanic Gardens, Kew; Sapienza University of Rome; Texas A&M University; Wildscreen; and Zoological Society of London.

If you see any errors or have any questions or suggestions on what is shown in this document, please provide us with feedback so that we can correct or extend the information provided.
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>Mollusca</td>
<td>Bivalvia</td>
<td>Unionoida</td>
<td>Unionida</td>
</tr>
</tbody>
</table>

**Taxon Name:** *Sinanodonta woodiana* (Lea, 1834)

**Synonym(s):**
- *Anodonta calipygos*
- *Anodonta japonica*
- *Anodonta lauta*
- *Anodonta woodiana*

**Regional Assessments:**
- **Europe**

**Common Name(s):**
- English: Chinese Pond Mussel

**Taxonomic Notes:**
*Anodonta japonica* (Von Martens 1874) is part of this species complex, however, there is no available information for this synonym. *Anodonta lauta* and *A. calipygos* were treated as separate species by Kondo (2008). A large number (103 at present) of synonyms of this species have been described (see MUSSELp; Graf and Cummings 2011).

**Assessment Information**

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

**Year Published:** 2011

**Date Assessed:** July 22, 2011

**Justification:**
The species has been assessed as Least Concern. This species has a widespread and stable native distribution. It is a habitat generalist and successful in introduced areas, expanding its range throughout the northern hemisphere.

**Geographic Range**

**Range Description:**
The species is native to temperate and tropical eastern Asia, primarily the Amur and Yangtze basins (Soroka 2005, Kraszewski and Zdanowski 2007), and has also been very widely introduced within Asia, Europe and the Americas. Its native range is uncertain, but ranges from Indochina and China, north to Korea, Japan, Primorye and the Amur Basin in eastern Russia (Graf 2007). The species native range in Indochina is unclear; it appears to be native to Viet Nam (from ‘Cochin’ as the synonym Anodonta jourdyi Morelet, 1886) and perhaps Cambodia, but Brandt (1974) considers the species to have been...
introduced to Thailand, Malaysia, Singapore, and other countries in southeast Asia.

It is one of the only members of Unionidae that has been introduced around the world (K. Cummings pers. comm. 2011). It was first introduced to Europe in 1963 along with introduced carp, and is currently found in at least fifteen European countries including Romania, Czech Republic, Belgium, Hungary, France, Slovakia, Austria, Poland, Ukraine, Italy, Germany, Serbia, Bulgaria, Moldova, Spain and Sweden as well as in some Indonesian islands (exact location unclear), Dominican Republic, USA (New Jersey), and Costa Rica (Paunovic et al. 2006, Bogan et al. 2011, K. Cummings pers. comm. 2011).

Country Occurrence:
Native: China; Russian Federation (Amur, Khabarovsk, Primoryi); Viet Nam

Introduced: Austria; Belgium; Bulgaria; Costa Rica (Costa Rica (mainland)); Czech Republic; Dominican Republic; France (France (mainland)); Germany; Hungary; Indonesia; Italy (Italy (mainland)); Malaysia (Peninsular Malaysia, Sabah, Sarawak); Philippines; Poland; Romania; Serbia (Serbia, Serbia); Singapore; Slovenia; Spain (Spain (mainland)); Sweden; Ukraine (Ukraine (main part)); United States (New Jersey)

Present - origin uncertain: Cambodia; Japan; Korea, Democratic People's Republic of; Korea, Republic of; Lao People's Democratic Republic; Thailand

http://dx.doi.org/10.2305/IUCN.UK.2011-2.2RLTS.T166313A6198609.en
Distribution Map

Sinanodonta woodiana

Range

- Probably Extant

Compiled by:
Indo-Burma assessment; IUCN FBU

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCan, GeoBase, IGN, Kadaster NL, Ordnance Survey, ESRI Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion or endorsement or acceptance of such names, boundaries, or designations by IUCN.
Population
There is no population information available for this species.
Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)
This species is a habitat generalist found in heavily modified and artificial habitats and is tolerant to high siltation rates (Paunovic et al. 2006). In the Czech Republic it is found in ponds, oxbow lakes and canals (Beran 2008). It prefers substrates of silt and clay, turbid conditions with relatively high water temperatures (30-33° C) and is found in either standing or slow-flowing water (Soroka 2005, Zettler and Jueg 2006).

Systems: Freshwater

Threats (see Appendix for additional information)
It is unknown whether this species is impacted by any major threats. However, it should be noted that this is an invasive species in Europe, the Caribbean, Indonesia and elsewhere. This species is likely to be undergoing localized declines due to urbanization, habitat degradation and alterations to the hydrological regime.

Conservation Actions
There are no conservation measures in place or needed for this species. Research into the threats affecting this species within its native range, as well as its population size and trends, should be carried out, as localized threats may be affecting this species.

Credits
Assessor(s): Cummings, K.
Reviewer(s): Böhm, M. & Collen, B.
**Bibliography**


**Citation**


**Disclaimer**

To make use of this information, please check the Terms of Use.

**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 Rivers/Streams/Creeks (includes waterfalls)</td>
<td>-</td>
<td>Suitable</td>
<td>Yes</td>
</tr>
<tr>
<td>5. Wetlands (inland) -&gt; 5.7. Wetlands (inland) - Permanent Freshwater Marshes/ pools (under 8ha)</td>
<td>-</td>
<td>Suitable</td>
<td>Yes</td>
</tr>
<tr>
<td>15. Artificial/Aquatic &amp; Marine - 15.2. Artificial/Aquatic - Ponds (below 8ha)</td>
<td>-</td>
<td>Marginal</td>
<td>-</td>
</tr>
<tr>
<td>15. Artificial/Aquatic &amp; Marine - 15.9. Artificial/Aquatic - Canals and Drainage Channels, Ditches</td>
<td>-</td>
<td>Marginal</td>
<td>-</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>1. Residential &amp; commercial development -&gt; 1.1. Housing &amp; urban areas</td>
<td>Ongoing</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>Stresses:</td>
<td>1. Ecosystem stresses -&gt; 1.1. Ecosystem conversion</td>
<td>1. Ecosystem stresses -&gt; 1.2. Ecosystem degradation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Natural system modifications -&gt; 7.2. Dams &amp; water management/use -&gt; 7.2.1. Abstraction of surface water (domestic use)</td>
<td>Ongoing</td>
<td>Unknown</td>
<td>Slow, significant declines</td>
<td>Unknown</td>
</tr>
<tr>
<td>Stresses:</td>
<td>1. Ecosystem stresses -&gt; 1.1. Ecosystem conversion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Natural system modifications -&gt; 7.2. Dams &amp; water management/use -&gt; 7.2.11. Dams (size unknown)</td>
<td>Ongoing</td>
<td>Unknown</td>
<td>Slow, significant declines</td>
<td>Unknown</td>
</tr>
<tr>
<td>Stresses:</td>
<td>1. Ecosystem stresses -&gt; 1.1. Ecosystem conversion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Natural system modifications -&gt; 7.3. Other ecosystem modifications</td>
<td>Ongoing</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>Stresses:</td>
<td>1. Ecosystem stresses -&gt; 1.1. Ecosystem conversion</td>
<td>1. Ecosystem stresses -&gt; 1.2. Ecosystem degradation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Research Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Research -&gt; 1.2. Population size, distribution &amp; trends</td>
</tr>
<tr>
<td>1. Research -&gt; 1.5. Threats</td>
</tr>
</tbody>
</table>

http://dx.doi.org/10.2305/IUCN.UK.2011-2.RLTS.T166313A6198609.en
## Additional Data Fields

<table>
<thead>
<tr>
<th>Population</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population severely fragmented: No</td>
<td></td>
</tr>
</tbody>
</table>
The IUCN Red List Partnership

The IUCN Red List of Threatened Species™ is produced and managed by the IUCN Global Species Programme, the IUCN Species Survival Commission (SSC) and The IUCN Red List Partnership. The IUCN Red List Partners are: BirdLife International; Botanic Gardens Conservation International; Conservation International; Microsoft; NatureServe; Royal Botanic Gardens, Kew; Sapienza University of Rome; Texas A&M University; Wildscreen; and Zoological Society of London.