

Understanding the global caviar market

Results of a rapid assessment on trade in sturgeon caviar

Rapid assessments of markets in several key range State for caviar producing species and consumer States (China, France, Germany, Japan, the Russian Federation and the USA) were conducted by TRAFFIC between December 2017 and February 2018. The full report of the findings is available [here](#). Key findings are summarised below.

Key findings

- 1) **The implementation of the CITES caviar labelling system recommended by *CITES Resolution Conf. 12.7 (Rev.CoP17) Conservation of and trade in sturgeons and paddlefish* is lacking in key range and consumer states.**
 - Rapid assessments conducted in several key range/consumer states (China, France, Germany, Japan, the Russian Federation and the USA) between December 2017 and February 2018 found that **of the six countries** included, **only two countries** (Germany and France) **have implemented the CITES caviar labelling system for domestic trade.**
 - All these countries are Parties to CITES and therefore should implement *CITES Resolution Conf. 12.7 (Rev. CoP17)* regarding the import, (re-)export and labelling requirements for domestic and international trade in sturgeon and paddlefish caviar. **The lack of implementation in key domestic markets undermines the original purpose of the CITES caviar labelling system to ensure legal and traceable trade.**
 - **Even where the CITES caviar labelling system is implemented for domestic trade**, there were several instances suggesting the **caviar labels did not comply with the CITES labelling requirements**. These included instances where i) the containers appeared to have no seals or packaging to show visual evidence of opening, ii) the lot identification number was missing from the label.
 - Furthermore, there was no consistency in the placement, design, positioning of the CITES code and quality across the labels used, which makes it difficult for enforcement authorities, producers and consumers to obtain reliable information on traceability and to detect invalid CITES labels.
 - **The implementation and enforcement of the CITES caviar labelling and related registration requirements require further and more thorough examination.**
- 2) **Caviar claimed to be sourced from the wild was found for sale online and in all countries where caviar was found for sale in physical markets.**
 - However, **it was not possible to determine conclusively whether the wild sourced caviar found during the surveys were in fact legal or illegal** due to various reasons, including:
 - i) the lack of the CITES caviar labelling in the domestic market in most of these key range and consumer States,
 - ii) the lack of clarity on the extent of legal exports in caviar from the wild in some range States, and,
 - iii) the lack of detail regarding the species, source and origin of caviar found for sale online.
 - In the Russian Federation, Germany and France caviar that was claimed as sourced from the wild was sold “under the counter” or on the black market, not openly.

- Wild sourced caviar is still requested by consumers (although this has declined) and is seen as superior to that from aquaculture in all countries where assessments were conducted.
- Country of origin is an important driver for consumers with Russian or Iranian caviar the most sought after and Oscietra the most popular product.

It is vital that range States of sturgeon and paddlefish species, countries which are involved in aquaculture, processing, (re-)packaging, trade and consumption and relevant CITES committees consider their respective roles in the conservation of remaining wild sturgeons and adopt necessary measures in a coordinated manner, including, but not limited to, **the review of the implementation of CITES Resolution Conf. 12. 7 (Rev.CoP17) and strengthening the universal caviar labelling.**

Key Recommendations

CITES Management Authorities

- CITES Management Authorities in countries not yet implementing the CITES caviar labelling provisions for domestic trade (including China, Japan, the Russian Federation and the USA) are encouraged to revise relevant national legislation to implement *CITES Resolution Conf. 12.7 (Rev.CoP17)* fully, in particular the universal caviar labelling system for the domestic trade.
- CITES Management Authorities are encouraged put in place stricter requirements for the quality and design of the CITES caviar labels to ensure that the labels provide visual evidence of any opening, are non-reusable and the CITES code is readable and easy to locate. Universal security features could be used to ensure labels are more difficult to be fraudulently produced. A clear definition of lot identification number should be agreed to help further improve traceability and to ensure consistency across producers and re-packagers.
- The CITES Management Authorities of the Parties that export wild sourced caviar (e.g. the USA) are encouraged to set and publish national export quotas for any export of wild sourced caviar every year to assist in regulating and monitoring international wild caviar trade.

CITES Secretariat and CITES Parties

- Parties to CITES should consider proposing changes to the universal caviar labelling system by revising *CITES Resolution Conf. 12. 7 (Rev.CoP17)* at the next CoP (CoP18) to ensure consistency of quality of the labels and to minimise a risk of fraud. Any proposed changes should aim to help make enforcement easier.
- To ensure *CITES Resolution Conf. 12. 7 (Rev. CoP17)* is fully implemented by Parties, the Standing Committee is encouraged to request the CITES Secretariat to review progress and report on gaps with regard to implementation of the Resolution and provide any recommendations for consideration.

Enforcement authorities

- Enforcement authorities of consumer and transit countries/territories are encouraged to pay a close attention to caviar that is claimed to be wild sourced and, as appropriate, get in contact with exporting countries to check if export permits are issued properly.

Background

Acipenseriformes spp. and CITES

Sturgeon and paddlefish (Acipenseriformes spp.) populations have been declining globally due to, among other threats, habitat degradation and overexploitation, including illegal fishing. Of the 27 species of sturgeon and paddlefish, 85% are now on the brink of extinction (WWF, 2017). In response to this and to ensure trade is sustainable, since 1998, all species of sturgeon and paddlefish have been listed in CITES Appendix I or II.

In 2000, a universal labelling system for all caviar was introduced to allow identification of the source of the caviar. *CITES Resolution Conf. 12.7 (Rev.CoP17)* recommends that Parties implement the universal labelling system for all caviar (wild sourced and derived from aquaculture) for international and domestic trade. Labels must be non-reusable, i.e. they cannot be removed undamaged or transferred to another container. The label may seal the container, or if not, the packaging should permit visual evidence of any opening.

Resolution Conf. 12.7 (Rev. CoP17) also recommends that range States license legal exporters of specimens of sturgeon and paddlefish species, maintain a register of these licensed facilities which should be assigned official registration codes, and provide this information to the Secretariat. At the time of writing, countries with the highest number of registered licensed facilities for caviar export, processing and repackaging were Switzerland (73), China (52), Iran (29), France (25) and Germany (25).

While *CITES Resolution Conf. 12.7 (Rev.CoP17)* recommends relevant range States to set export quotas for caviar and meat of Acipenseriformes spp. from shared stocks every year, as of 31st December 2017 no relevant export quotas had been communicated to the CITES Secretariat by relevant range States since 2010¹, meaning that no international trade in wild sourced caviar or meat of Acipenseriformes spp. from shared stocks should be allowed. There have been no nationally established export quotas (*CITES Resolution Conf. 14.7 (Rev.CoP15)*) reported to the CITES Secretariat for wild-taken Acipenseriformes spp. from non-shared stocks since 2011 as of March 2018 except for Uzbekistan, which reported a quota of 20 specimens of live, wild sourced Amu Darya Sturgeon *Pseudoscaphirhynchus kaufmanni* in 2017. There is therefore a lack of clarity from where and under what circumstances caviar from the wild can still enter international trade legally.

Threats to wild sturgeon

Global caviar production and trade dynamics have changed over the last decades with the rapid growth of aquaculture production. According to CITES trade data, global caviar imports declined from 229t in 2000 to 198t in 2015 and those sourced from aquaculture accounted for 95% of total imports by weight in 2015. However, caviar sourced from wild sturgeons was still traded, with American Paddlefish *Polyodon spathula* (48 011 kg), Russian Sturgeon *Acipenser gueldenstaedtii* (6030 kg) and Shovelnose Sturgeon *Scaphirhynchus platyrhynchus* (5416 kg) being the top three species of wild sourced caviar in trade by importer reported quantity between 2010 and 2015.

Despite the introduction of CITES regulations and the rapid growth of aquaculture production, illegal fishing of sturgeon and illegal trade in wild caviar have been still a serious threat to remaining

¹ <https://cites.org/sites/default/files/eng/com/ac/30/E-AC30-17-01.pdf>

Acipenseriformes spp. The Caspian Sea sturgeon population has continued to decrease dramatically despite the CITES listing (Bronzi and Rosenthal, 2014; van Uhm and Siegel, 2016). Anecdotal evidence of poaching was found in the Russian Federation through the additional interviews and review of media articles published about the Amur River which borders the Russian Federation and China. As European species have declined, the USA have seen more poaching pressure on American species². Operation Roadhouse³ in 2017 revealed that the annual spawning season in Missouri was attracting people from all over the country to take part in Paddlefish fishing and over 100 suspects were thought to be involved in illegal trafficking (Knight, 2017). Additionally, some research suggests that illegal caviar trade was conducted by organised crime groups who bribed officials (Sellar, 2014; van Uhm and Siegel, 2016).

A number of issues concerning implementation of the caviar labelling system have been discussed (Mundy and Sant, 2015). One of the concerns over the current CITES labelling system is that wild sourced caviar can be deliberately mislabelled as derived from aquaculture enabling laundering through the legal trade. DNA testing has found instances where wild caviar seems to have been traded or sold as a product from aquaculture (Doukakis *et al.*, 2012; Kecse-Nagy, 2011). Empty caviar tins and jars, lids and labels have been reported to be widely traded in Europe/Western Asia to mislabel and trade poached caviar (van Uhm, 2016).

Trade analysis and market survey

In order to obtain a better understanding of global caviar markets, a study was conducted focusing on reviewing compliance with the CITES caviar labelling system, identifying geographic hotspots for trade in caviar and obtaining an initial understanding of consumer attitudes towards caviar consumption. The findings from the analysis were used to identify six locations as potential hotspots for caviar trade (legal and illegal). These were China, France, Germany, Japan, Russia and the USA. Rapid assessments were conducted in each of these countries between December 2017 and February 2018, which involved online surveys of products for sale, physical market surveys in one city per country and a review of available information on relevant legislation.



1) Containers appeared to have no seals or packaging to show any visual evidence of opening



2) Caviar with no lot identification number in the CITES label

² <https://www.fws.gov/fisheries/freshwater-fish-of-america/paddlefish.html>

³ <https://mdc.mo.gov/newsroom/mdc-and-federal-agents-snag-major-paddlefish-poaching-operation>

For **further information**, see Harris, L. and Shiraishi, H. (2018). *Understanding the global caviar market. Results of a rapid assessment of trade in sturgeon caviar*. TRAFFIC report. traffic.org/storage/global-caviar-market.pdf

Contact:

Hiromi Shiraishi, TRAFFIC Programme Officer. hiromi.shiraishi@traffic.org

Jutta Jahrl, Project Manager LIFE for Danube Sturgeons. jutta.jahrl@wwf.at

References

Bronzi, P. and Rosenthal, H. (2014). Present and future sturgeon and caviar production and marketing: A global market overview. *Journal of Applied Ichthyology*, 30(6), pp. 1536–1546. doi: 10.1111/jai.12628.

Doukakis, P. *et al.* (2012). 'Testing the effectiveness of an international conservation agreement: Marketplace forensics and CITES Caviar trade regulation', *PLoS ONE*, 7(7). doi: 10.1371/journal.pone.0040907.

Kecse-Nagy, K. (2011). *Trade in Sturgeon Caviar in Bulgaria and Romania - overview of reported trade in caviar, 1998-2008*. Budapest, Hungary.

Knight, J. (2017). *Operation Roadhouse: How inter-agency collaboration stopped illegal Paddlefish depredation.*, *The National Agency of Conservation Law Enforcement Chiefs*. Available at: <https://www.naclec.org/press-pages/2017/9/17/operation-roadhouse-how-inter-agency-collaboration-stopped-illegal-paddlefish-depredation>.

Mundy, V. and Sant, G. (2015). *Traceability systems in the CITES context: A review of experiences, best practices and lessons learned for the traceability of commodities of CITES-listed shark species*. TRAFFIC report for the CITES Secretariat.

Sellar, J. (2014). *The UN's Lone Ranger: Combating international wildlife crime*. Whittles Publishing, Dunbeath, Scotland, UK.

van Uhm, D. (2016). *The illegal wildlife trade: Inside the world of poachers, smugglers and traders*. Springer, Switzerland.

van Uhm, D. and Siegel, D. (2016). 'The illegal trade in black caviar', *Trends in Organized Crime*, 19, pp. 67–87. doi: 10.1007/s12117-016-9264-5.

UNODC (2016). *World Wildlife Crime Report*. Vienna: UNODC, 2016. Available at: <http://www.unodc.org/unodc/en/data-and-analysis/wildlife.html>.

WWF (2017). *WWF Network Sturgeon Strategy*. <https://danube-sturgeons.org/wp-content/uploads/2017/10/WWF-Global-Sturgeon-Strategy-2017.pdf>