

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Thirty-first meeting of the Animals Committee
Geneva (Switzerland), 13-17 July 2020

Interpretation and implementation matters

Regulation of trade

IDENTIFICATION AND TRACEABILITY OF STURGEONS
AND PADDLEFISH (ACIPENSERIFORMES SPP.)

1. This document has been prepared by the Secretariat.
2. At its 18th meeting (CoP18, Geneva, 2019), the Conference of the Parties renewed Decisions 16.136 (Rev. CoP18) to 16.138 (Rev. CoP18) on *Identification and traceability of sturgeons and paddlefish (Acipenseriformes spp.)* as follows:

16.136 (Rev. CoP18) Directed to the Secretariat

The Secretariat shall:

- a) *subject to external funding and in consultation with the Animals Committee, organize a study to:*
 - i) *provide an overview of molecular, DNA-based and other forensic methods that could assist in identifying the species and populations of Acipenseriformes specimens in trade, determining the origin or age of specimens, and differentiating wild from captive-bred or aquacultured specimens;*
 - ii) *review relevant developments in this area, including the availability and reliability of uniform identification systems;*
 - iii) *evaluate the advantages and disadvantages of the different methods (including practicality, costs, time-efficiency, reliability, technical requirements, etc.); and*
 - iv) *formulate relevant guidance for CITES Parties, enforcement agencies, the private sector and other stakeholders;*
- b) *ensure consultation with Parties that authorize trade in specimens of sturgeons and paddlefish, appropriate experts, institutions and organizations, and the private sector in the conduct of the study;*
- c) *make the results of the study available to the Animals Committee for its consideration; and*
- d) *disseminate the recommendations formulated by the Standing Committee pursuant to Decision 16.138 (Rev. CoP18) in a Notification to the Parties.*

16.137 (Rev. CoP18) Directed to the Animals Committee

The Animals Committee shall assist the Secretariat in determining the specifications for the study referred to in Decision 16.136 (Rev. CoP18) and monitoring its conduct. It shall review the report of the study and make recommendations as appropriate for consideration by the Standing Committee.

16.138 (Rev. CoP18) Directed to the Standing Committee

The Standing Committee shall review the study undertaken in accordance with Decision 16.136 (Rev. CoP18) and the recommendations that the Animals Committee formulated in compliance with Decision 16.137 (Rev. CoP18), and make its own recommendations, as appropriate, for communication to Parties concerned or for consideration at the 19th meeting of the Conference of the Parties.

3. As communicated through the Secretariat's oral update to the Conference of the Parties at its 18th meeting, World Wildlife Fund (WWF) Austria confirmed that it had secured funding to carry out the study on "*Identification of Species, Subspecies, Source and Origin of Sturgeons and Paddlefish species and specimens (Acipenseriformes spp.) in trade*", called for in Decision 16.136, in collaboration with a number of leading sturgeon experts. The Conference of the Parties subsequently decided to renew Decisions 16.136 (Rev. CoP18) to 16.138 (Rev. CoP18).
4. In order to implement Decision 16.137 (Rev. CoP18), the Secretariat initiated a postal procedure pursuant to Rule 19 of the Rules of Procedure of the Animals Committee with the approval of the Chair of the Animals Committee. The Secretariat communicated to the Members of the Animals Committee on 19 November 2019, seeking their comments and inputs on the terms of reference for the proposed study within 40 days (by 29 December 2019). Based on the comments received from the Animals Committee's Members, revised terms of reference were produced in consultation with the Chair of the Animals Committee. In accordance with paragraph 2 of Rule 19 of the Rules of Procedure of the Animals Committee, Members were given 25 days within which to raise an objection.
5. The postal procedure concluded on 23 March 2020 and as no objection was received, the Secretariat shared with WWF Austria the final terms of reference for the study on "*Identification of Species, Subspecies, Source and Origin of Sturgeons and Paddlefish species and specimens (Acipenseriformes spp.) in trade*", shown in the Annex to this document.
6. At the time of writing, WWF Austria had reported that, despite some setbacks due to Covid-19, good progress has been made with the study, and should a draft be ready for submission before the AC31 meeting, it will be made available as an information document.
7. To facilitate the implementation of Decision 16.137 (Rev. CoP18), the Animals Committee may wish to consider establishing an intersessional working group to review the study when it becomes available and prepare draft recommendations for consideration at the 32nd meeting of the Animals Committee.
8. The Animals Committee is reminded that a joint working group of the Animals and Plants Committees on identification materials is being established at the present meeting pursuant to Decision 18.137 (see agenda item 15). Should the Animals Committee agree that an intersessional working group would be required to review the study mentioned above, it may wish to consider whether and how the joint working group on identification materials would have a role in the review.

Recommendations

9. The Animals Committee is invited to consider establishing an intersessional working group to:
 - a) review the report of the study referred to in Decision 16.136 (Rev. CoP18), when it becomes available; and
 - b) prepare draft recommendations, as appropriate, for consideration at the 32nd meeting of the Animals Committee.

Final comments from the Animals Committee on the terms of reference for the study on
"Identification of Species, Subspecies, Source and Origin of Sturgeons and
Paddlefish species and specimens (Acipenseriformes spp.) in trade"
(based on document SC70 Doc. 44.2)

The points listed below are derived from CITES [Decision 16.136 \(Rev CoP18\)](#) with additional details added by the project group and the Animals Committee.

The study shall

- i) provide an overview of (1) morphological, (2) molecular (both mitochondrial and nuclear DNA-based), (3) chemical (isotope composition based) and (4) other forensic methods such as (a) the microscopic analysis of eggs (including determination of ovulation) (b) fatty acids composition and (c) trace elements. It shall describe the listed methods and how they could assist in identifying pure species or hybrids of live *Acipenseriformes* specimens, including parts and derivatives, in trade, to determine or infer the natural population or the captive stocks of origin, and to differentiate wild from captive-bred or aqua-cultured specimens, including parts and derivatives;
- ii) review relevant developments in this area, including the availability and reliability of identification systems; [PLEASE NOTE: Since there is no uniform identification system in place, the study can only assess the applicability of the different methods for different questions (species identification/geography/aquaculture origin)];
- iii) evaluate the advantages and disadvantages of the different methods (including practicality, costs, time-efficiency, reliability, technical requirements, availability/necessity of reference databases, possibilities and limits for standardisation, etc.); and
- iv) formulate relevant guidance for CITES Parties, enforcement agencies, the private sector and other stakeholders.

The study will conclude with suggested recommendations such as the establishment of contact database of appropriate institutes or the establishment of a network platform (following the example of the Global Timber Tracking Network) to facilitate the exchange between different institutes to share data, samples, methods, locations of laboratories; the establishment of an advisory board with global participation, and the possible development of UNODC guidelines (as for ivory or timber).

General remarks:

The study should aim to be limited to 15-20 pages maximum; the content must be scientifically based but the authors are encouraged to use language suitable for scientists, policy makers, and other stakeholders not familiar with forensic methods (such as CITES Scientific Authorities, Management Authorities, aquaculture firms and traders).

Project Team: Coordinator Beate Striebel-Greiter (WWF).

Lead authors/experts: Markus Boner (agroislab, Germany), Leonardo Congiu (University of Padova, Italy) Jutta Jahrl (WWF Austria) and Arne Ludwig (Leibniz Institute for Zoo and Wildlife Research, Germany).

Other experts with pertinent information and expertise that will be consulted: Edgard Espinoza (U.S.A. National Fish & Wildlife Forensics Laboratory) for fatty acids mass spectrometry; Lutz Debus (University of Rostock, Germany); Nicolai Mugue (Russian Federal Research Institute of Fisheries and Oceanography) for microscopical analysis; and Qiwei Wei (Yangtze River Fisheries Research Institute, China). The authors in conducting the study will also reach out to caviar producers and aquaculture farms, in particular in the major countries involved in this activity.

The following are some questions and concerns raised by the CITES Animals Committee that the consultants may wish to take into consideration:

- Regarding i): For context, it is suggested to provide a brief overview of traditional morphological identification of different species, and a discussion on why these methods are no longer applicable (hybrids, aquaculture, etc.).
- Regarding i) (2): Microsatellites are a subset of nuclear DNA, but the authors may wish to use SNPs or some other nuclear methods, so better to keep at the higher level.
- Regarding i) (3): It is not clear which isotopic methods are meant here? Stable isotope analysis? Radioisotopes? Isotopic labelling? This lumps a broad field of applications which alone could be a whole study.
- Regarding i) (4): Should it only include dead specimens and derivatives or also identify live fish (e.g. fish for restocking)?
- Regarding i) (4) b+c): It is not clear why this is separated from 'Chemical' when these are effectively all chemistry-lab type analyses?
- Regarding ii): The first sentence is confusing as the next sentence states there are no uniform identification systems. Also, it is important to clarify that a 'uniform identification system' is different from the Guidelines for caviar labelling in Annex 1 to Resolution Conf. 12.7 (Rev. CoP17) on *Conservation of and trade in sturgeons and paddlefish*. Since this is meant to be a system of species identification, note that Annex 6 to document CoP17 Doc. 81.1 provides a checklist of recognized species and genera of Acipenseriformes. So, this uniform identification system needs to be refined / clarified: this is an identification system to identify traded specimens to species, source and origin, not a system that uniformly identifies the specimen in trade (i.e. uniform tagging and labelling).