

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



Seventieth meeting of the Standing Committee
Rosa Khutor, Sochi (Russian Federation), 1-5 October 2018

Interpretation and implementation matters

Trade control and traceability

SIMPLIFIED PROCEDURES FOR PERMITS AND CERTIFICATES:
REPORT OF THE WORKING GROUP

1. This document has been submitted by Australia, as Chair of the Standing Committee Working Group on Simplified Procedures for Permits and Certificates.*

Background

2. At the 17th meeting (Johannesburg, 2016), the Conference of the Parties adopted a number of Decisions related to issuance of permits and certificates, as follows:

Directed to the Secretariat

17.173 *The Secretariat shall issue a Notification to the Parties requesting Parties to report on their implementation of, and experiences with the simplified procedures to issue permits and certificates to facilitate and expedite trade that will have a negligible impact, or none, on the conservation of the species concerned, as agreed under Section XII of Resolution Conf. 12.3 (Rev. CoP17) on Permits and certificates, and submit a compilation of this information and its recommendations for consideration by the Standing Committee prior to the 18th meeting of the Conference of the Parties.*

Directed to the Standing Committee

17.174 *The Standing Committee shall consider the report and recommendations from the Secretariat provided in accordance with Decision 17.173 and make recommendations for consideration by the Parties, if deemed necessary.*

17.85 *The Standing Committee shall:*

- a) *examine mechanisms to facilitate the efficient international movement of samples for forensic or enforcement purposes, for consideration by the 18th Conference of the Parties; and*
- b) *with support of the Secretariat, explore options to strengthen cooperation and collaboration between CITES and the United Nations Convention against Transnational*

The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.

Organized Crime and the United Nations Convention against Corruption, including through their respective programmes of work and Secretariats, and report at the 18th meeting of the Conference of the Parties.

17.216 *On the basis of information provided by the Secretariat and the Animals Committee, the Standing Committee shall consider issues concerning the conservation and management of sharks and rays, and provide guidance as appropriate, pertaining to:*

- a) *legislative matters that might arise in exporting, transit or consumer countries, and those relating to legality of acquisition and introduction from the sea;*
- b) *identification and traceability, taking into consideration requirements that have been developed for the trade in specimens of other Appendix-II species, and their applicability to specimens of CITES-listed sharks and rays in trade;*
- c) *conservation and management measures for sharks and rays taken by Regional Fisheries Management Organisations; and*
- d) *coherence of CITES provisions concerning sharks and rays with conservation and management measures of other relevant multilateral environmental agreements;*

The Standing Committee shall report on the implementation of this decision, with recommendations as appropriate, at the 18th meeting of the Conference of the Parties.

3. Based on Decisions 17.173-174, the Secretariat issued, on 22 November 2017, Notification to the Parties No. 2017/071 on Simplified procedures for permits and certificates, inviting Parties and other relevant stakeholders to submit information on their implementation and experiences with the use of simplified procedures and any difficulties encountered by 31 January 2018.
4. Further, the 69th meeting of the Standing Committee established a Working Group on Simplified Procedures for Permits and Certificates with a mandate to:
 - a) review the Secretariat's compilation of responses to Notification 2017/071 inviting Parties and stakeholders to report on their implementation of, and experience with, simplified procedures to issue permits and certificates to facilitate and expedite trade that will have a negligible impact, or none, on the conservation of the species concerned;
 - b) consider the scientific exchange provision outlined under Article VII, paragraph 6 of the Convention and further guidance on implementing that provision outlined in Resolution Conf. 11.15 (Rev. CoP12) on Non-commercial loan, donation or exchange of museum and herbarium specimens;
 - c) take into account relevant work of the electronic systems and information technology working group;
 - d) consider whether the provisions of Section XII of Resolution Conf. 12.3 (Rev. CoP17) on Permits and certificates are adequate to facilitate the international movement of:
 - i) samples of CITES-listed species (or samples suspected to contain CITES-listed species) for forensic or enforcement purposes, as requested of the Standing Committee in Decision 17.85 and canvassed in SC69 Inf. Doc. 18;
 - ii) the introduction from the sea of biological samples of CITES-listed species; and
 - iii) the urgent international movement of biological samples of CITES-listed species, including for diagnostic and other health and disease related purposes.
 - e) if required, make proposals for amendment to Resolution Conf. 12.3 (Rev. CoP17) on Permits and certificates, and Resolution Conf. 11.15 (Rev. CoP12) on Non-commercial loan, donation, or exchange of museum and herbarium specimens; and
 - f) present its report and recommendations to the 70th meeting of the Standing Committee for consideration.

5. At the time of writing, membership of the working group includes the following: Australia (Chair), Canada, China, European Union, Germany, Guatemala, Italy, Japan, Mozambique, Namibia, Russian Federation, South Africa, Switzerland, Thailand, United Kingdom of Great Britain and Northern Ireland, United States of America, Viet Nam and Zimbabwe; Ardastra Gardens, Zoo and Conservation Centre, Association of Zoos and Aquariums, Defenders of Wildlife, Food and Agriculture Organization, Humane Society International, International Union for Conservation of Nature, Lewis & Clark – International Environmental Law, MEA Strategies, San Diego Zoo Global, Society for Wildlife Forensic Science, TRACE Wildlife Forensics Network, TRAFFIC, and Wildlife Conservation Society.

Responses to Notification No. 2017/071 on use of simplified procedures

6. A total of 23 responses were received to the Notification, including from: Australia, Canada, Croatia, Estonia, the European Union, France, Germany, Greece, Ireland, Slovakia, Spain, Switzerland, Thailand, Tunisia, the United Kingdom, the United States of America, Florida Museum of Natural History, ICCAT Shark Species Working Group, IOTC, IUCN Species Survival Commission Wildlife Health Specialist Group, MEA Strategies, Otlet (Australia), Sharks Specialists and the Society for Wildlife Forensic Science. Informal feedback was also provided to the Chair by the Australian Museum. A copy of the responses is provided as a Standing Committee 70 Information document.
7. Of the Parties that responded, nine advised that they implement provisions to allow simplified permitting procedures in accordance with Resolution Conf. 12.3 (Rev. CoP17). Others advised that while provisions to allow for simplified permitting are in place in their national legislation, they have not been required to be used.
8. Simplified procedures may be used for movement of biological and forensic samples, however there is little evidence that this is occurring. Parties who stated they implement simplified procedures noted that they are generally used to facilitate the movement of low-risk personal or commercial trades of Appendix II species (for example small leather goods or rosewood musical instruments), or for biomedical research samples (for example from laboratory primates). Some Parties noted that they did not require use of simplified procedures for the movement of forensic or enforcement samples, as they were able to issue these permits as a priority.
9. Only two Parties advised of difficulties experienced implementing these procedures: the UK and Germany reported that some customers had difficulty understanding how to fill out partially-complete permits, or that they were being misused by companies who passed them (incorrectly) onto clients. As a result, the number of permit holders eligible to use simplified procedures was reduced.
10. Responses from organisations differed significantly to those of Parties. Organisations indicated that CITES permitting requirements posed a significant barrier to their research. Responses did not focus on the use of simplified permitting procedures, but referred more generally to CITES permitting procedures. Organisations indicated that the following factors presented an issue:
 - Lack of clear advice and instructions on how to obtain permits for CITES specimens and, for wildlife forensic samples, how to ship unidentified specimens;
 - Length of time to obtain a permit, due to:
 - Overly complex and burdensome administrative processes to obtain permits, resulting in delays in issuance of permits, and/or;
 - Slow issuance of permits.
 - Variation in how countries apply CITES requirements. For example, some Parties require Ministry-level approval for Appendix I specimens, and others implement import permit requirements for Appendix II specimens;
 - Lack of capacity in some Parties, resulting in:
 - delays in issuing permits;
 - lack of understanding of permit requirements for these types of specimens, which in some cases resulted in samples being destroyed.

- Difficulties navigating permit requirements for introduction from the sea of marine specimens;
 - Permit costs;
 - Registration of scientific organisations in accordance with Article VII paragraph 6 and Resolution Conf. 11.15:
 - Some Parties are either reluctant to register institutions, or do not have scientific facilities suitable for registration under the scientific exchange provisions.
 - Processing of permits through ports which, if delayed, can lead to degradation of samples.
11. Feedback from organisations is further supported by the findings of the World Bank Group Tools and Resources to Combat Illegal Wildlife Trade¹, which state that there is a need for countries to access forensic support outside of their countries, but they are limited by the lengthy timeframes to move samples.
12. The responses to Notification 2017/071 do not provide further information as to why simplified permitting provisions are not being used for forensic and biological samples. The working group considers that the following factors may contribute to the lack of use of simplified procedures:
- Infrequent movement of forensic and biological samples resulting in:
 - Parties being unfamiliar and unprepared to use simplified procedures for these types of specimens;
 - Simplified procedures not presenting the most effective method to facilitate movement of these samples, particularly when permitting is reactive and time-dependent.
 - The need to register a range of ‘persons and bodies’ that may benefit from simplified procedures (Resolution Conf. 12.3 paragraph 20 b i)). In the case of enforcement samples, this could mean registration of many persons and bodies for relatively few cases, for example, customs, police, and rangers. For marine samples, it could mean registration of marine research organizations that operate within various jurisdictions and in the high seas.
 - Varying implementation by Parties of CITES permitting requirements and simplified procedures, which complicates universal application of CITES requirements.
 - Some Parties use of e-permitting systems and processes, which allows for rapid approval of applications and has negated the need to introduce simplified procedures.

Approach of working group

13. The working group examined the application of Resolution Conf. 12.3 (Rev. CoP17) on *Permits and certificates* with respect to the three separate but related issues: the movement of CITES samples for forensic or enforcement purposes; the introduction from the sea of CITES biological samples; and the urgent international movement of CITES biological samples for diagnostic and other health/disease related purposes. The use of scientific exchange provisions outlined under Article VII, paragraph 6 of the Convention and further in Resolution Conf. 11.15 (Rev. CoP12) on *Non-commercial loan, donation or exchange of museum and herbarium specimens* was also examined with respect to the international movement of these specimens.

Forensic samples

14. Wildlife forensic science comprises a suite of powerful scientific tools to support the investigation and prosecution of wildlife crime. Wildlife forensic samples can be used to deliver information to support investigations into potential breaches of CITES. This information can enable investigators to determine:
- The species involved;

¹ World Bank Group (2018) *Tools and Resources to Combat Illegal Wildlife Trade*.
<http://pubdocs.worldbank.org/en/389851519769693304/24691-Wildlife-Law-Enforcement-002.pdf>

- The geographic origin of a specimen;
- The wild or captive/cultivated source of a specimen;
- The individual identification of a specimen;
- The age of a specimen;
- Development of DNA registration systems for enforcement².

15. Wildlife forensic samples can be split into two main categories:

Forensic reference samples: wildlife material used to build forensic reference databases. Reference samples would be used to develop markers against which future samples can be tested. These databases can form the basis for future testing of forensic material for evidentiary/enforcement purposes. Different types of markers are required for different types of forensic testing (note that these standards are not required for all types of forensic analysis). Forensic reference samples should be considered as research material, used to identify and build appropriate markers for different species commonly associated with wildlife crime. Forensic reference samples can assist analysis of enforcement or 'case work' samples by providing a comparative reference for the analysis.

Forensic enforcement samples: wildlife material used to investigate whether or not a crime was committed. These specimens will generally be linked to an open investigation seeking to determine possible criminal activity. Sometimes, enforcement specimens may be from an unidentified species. These samples may also be referred to as 'case work' samples.

16. Movement of forensic reference samples is generally not time-critical. Movement of forensic enforcement samples can be time-critical and delays in delivery of forensic results may cause investigations to be stopped or seizures released due to lack of evidence or because statutory timeframes are exceeded.
17. Wildlife forensic samples, including those used for reference and enforcement purposes, take a variety of forms. In some cases, small sub-samples of hair, skin, feathers, scales, bones, teeth, shell or purified DNA may be moved for diagnostic or identification purposes. In other instances, it may be preferable to move an entire specimen to ensure that the sample is not contaminated before it reaches the lab for testing. Testing may also be conducted on products to determine if the product contains an endangered species, for example, bear bile.
18. CITES Parties have acknowledged the need to access quality wildlife forensic testing, including by sending samples to laboratories in other countries when needed. In response, Parties agreed Decision 17.83, paragraph c), which recommends the development of an electronic directory of laboratories that conduct wildlife forensic testing, that meet the minimum quality assurance standards and that, subject to available resources, are able and willing to carry out wildlife forensic analyses upon request from other countries. The implementation of this Decision will complement the work done by the working group, and will help ensure that forensic science is used to the fullest extent possible in order to combat wildlife crime.

Introduction from the sea (IFS) of biological samples

19. The need to facilitate or simplify the process for obtaining CITES permits or certificates for international movements of biological samples of CITES-listed marine species, in particular, where these samples are collected for research purposes from the marine environment, including the high seas, has been identified (see documents CoP17 Doc. 36, CoP17 Doc 56.1 and CoP17 Doc 56.2, SC69 Doc. 50).
20. Responses to the Notification did not provide information on whether or not simplified procedures are used for marine biological samples. Responses did illustrate that researchers have experienced difficulties with the permitting process for introduction from the sea of marine specimens. Often, these biological marine

² *Review of wildlife forensic science and laboratory capacity to support the implementation and enforcement of CITES.*
<https://cites.org/sites/default/files/eng/cop/17/WorkingDocs/E-CoP17-25-A4.pdf>

samples require multiple movements between countries (either landing or transshipments between multiple jurisdictions) before they reach their destination for testing. Each movement requires issuance of a permit or certificate, including the initial introduction from the sea certificate. Validation of these permits/certificates has also presented a challenge. Movement of these samples is generally not facilitated through registered scientific institutions; therefore, they do not qualify for the exemption described in Resolution Conf. 11.15.

21. To better understand the issues related to the introduction from the sea of marine biological samples, the working group notes that the Secretariat will issue, prior to SC70, a Notification to the Parties regarding the challenges experienced with introduction from the seas of CITES marine specimens. Responses to this Notification may help inform the work of this working group, and may help identify further opportunities to use simplified procedures.

Diagnostic and other health/disease related samples

22. There is sometimes a need for the urgent movement of CITES biological samples to facilitate diagnosis of disease or health-related issues in the interest of the health of an individual animal or for the conservation of a species. A lack of expertise or comprehensive diagnostic facilities (infectious or toxicological) in-country may hinder effective investigation, determination and analysis of a specific event. Alternatively, the volume of samples for iterative and represented sampling may overwhelm the in-country facilities and partnership with facilities in other countries may be required. Comprehensive diagnostic capacity is particularly important when the cause of disease or mortality is not apparent or is inconsistent with usual disease manifestation, potentially requiring extensive diagnostics to determine cause. There are processes in place for rapid movement of diagnostic samples relating to human and livestock health, however an equivalent process for wild species does not exist.
23. Definitions relevant to emergency movement of diagnostic and other health/disease related samples are as follows:

Diagnostic samples/specimens: used in this instance to refer to biological samples for analysis of types illustrated by Annex 4 of Resolution Conf. 12.3 (Rev. CoP17) that are taken in the event of an emergent or rapidly developing disease event for the purposes of determining the cause of death or disease.

Disease event: refers to an emerging or sudden onset or increase of disease to a population or populations of a CITES-listed species and explicitly does not refer to an ongoing, usual burden of disease that might be present in a population or populations.

24. Movement of these types of samples is time critical. The time taken to comply with CITES permit requirements can delay the transport and diagnosis of the samples, and potentially compromise mitigating steps to alleviate the disease event. Delaying the movement of samples can also cause sample degradation and increase the likelihood of degradation of cold chain transport often required for preservation of samples. Similarly, processing of permits at port of entry and weekend working anomalies can lead to exhaustion of dry ice and degradation of samples requiring cold chain or frozen conditions.

Application of Resolution Conf. 11.15 (Rev. CoP12)

25. Resolution Conf. 11.15 (Rev. CoP12) on Non-commercial loan, donation or exchange of museum and herbarium specimens provides Parties with guidance on how to apply paragraph 6 of Article VII of the Convention, which states:

“The provisions of Articles III, IV and V shall not apply to the non-commercial loan, donation or exchange between scientists or scientific institutions registered by a Management Authority of their State, of herbarium specimens, other preserved, dried or embedded museum specimens, and live plant material which carry a label issued or approved by a Management Authority.”

26. This exemption allows for movement of CITES specimens between registered scientists and scientific institutions without the requirement for CITES permits or certificates. The exemption is intended to facilitate easier movement of samples for bona fide research purposes with minimal impact on wild populations, through utilising specimens already housed within the collections of scientists or scientific institutions.

27. The working group considers that this exemption could apply to the movement of CITES samples for forensic research/reference purposes, and for the movement of CITES samples for emergency health/diagnostic purposes through amendment to Resolution Conf. 11.15. The working group considers that there is limited scope for the application of Resolution Conf. 11.15 to introduction from the sea of marine biological samples. Movement of these samples is generally not facilitated through registered scientific institutions; therefore, they do not qualify for the exemption described in Resolution Conf. 11.15.
28. Applying the exemption in this manner would allow scientists and scientific institutions undertaking wildlife forensic research to share research samples to build reference databases and research capabilities. It would also provide for rapid movement of health samples for testing and diagnostic analysis, provided samples met the exemption criteria and movement was facilitated between registered organisations.
29. The exemption removes all CITES permitting requirements for exchanged specimens, provided they meet the conditions of the Convention and Resolution Conf. 11.15. Additional safeguards are proposed for inclusion in Resolution Conf. 11.15 to minimise the risk of expanding the application of the exemption to a wider range of specimen types. These include:
 - Inclusion of an annex that outlines the types of forensic samples eligible for movement. The annex has been developed in conjunction with forensic researchers and includes scientific specimen types that would be used in forensic research. The United Nations Office on Drugs and Crime (UNODC) sampling guidelines have been used as the basis for the sample size for elephant ivory forensic samples that are eligible for exchange, and rhino horn samples have been informed by standards developed by South Africa's Department of Environmental Affairs in conjunction with RhODIS (the Rhino DNA Index System).
 - Standards of registration specific to forensic research institutions.
 - Reference to laboratories recognised as an official reference laboratory or collaborating centre by the World Organization for Animal Health (OIE). Such laboratories would qualify for registration by Parties.
 - A requirement that registered scientists and scientific institutions notify the Party through which they are registered that they have used the exemption and the type of specimen/s exchanged. This will allow Parties oversight of trade that has occurred under the exemption. If there are concerns that the exemption is being misused, Parties can remove institutions from the register.
 - A requirement that Parties regularly update their list of registered institutions, to ensure that only current, valid institutions are eligible for the exemption. A decision has been drafted asking the Secretariat issues a Notification seeking this information from Parties.
30. At this time, it is not proposed that this exemption should be applied to facilitate the movement of forensic samples for law enforcement purposes. The exemption and Resolution are intended to facilitate movement of samples for research purposes, and are not intended to apply to law enforcement samples, which are subject to specific purpose and source codes under the Convention. Release of enforcement samples to be exchanged by scientific institutions and used as a shared resource available to all qualified users would likely have legal ramifications and could potentially seriously impact on active enforcement investigations. There would also be considerations about ownership and the chain of custody for forensic samples associated with active investigations if they were moved under this exemption. The working group did not reach full consensus on this approach. One observer member has expressed a preference that enforcement samples related to active case work should be included in the exemption described in Resolution Conf. 11.15. More discussion on this point could be warranted in the future.
31. The full suite of proposed amendments to Resolution Conf. 11.15 are outlined in Annex 1 of this paper. Whilst the working group considers that the amendments offer some assistance in facilitating the movement of forensic research and emergency health/diagnostic samples, they will not entirely solve the issues reported by organisations in response to Notification No. 2017/071. Emergency health/diagnostic samples will only be able to be moved using this exemption if they can be first transferred from a registered scientist or scientific institution in accordance with the exemption provisions. This will not always be possible when responding to emergency disease outbreaks that require the movement of biological samples, as use of the exemption would require both Parties involved in the movement of samples to hold registered scientists or scientific institutions. The same limitations apply to the movement of marine biological samples, which will always require an authorization (permit or certificate) when introduced from the sea.

32. The working group would also like to emphasise that Resolution Conf. 11.15 already clarifies that the exemption should be applied to fauna specimens, however it is noted the exemption is not applied to fauna by all Parties. Application of the exemption to fauna specimens, as recommended in Resolution Conf. 11.15, will allow for wider application to forensic research and emergency health/diagnostic samples and is therefore encouraged.
33. The working group notes that the requirement for research samples to be moved through a registered institution is considered to be an impediment by some researchers. However, whilst the working group acknowledges the concerns of researchers, removing the need for samples to be exchanged, loaned or donated by registered institutions would be in contravention of the Convention and would completely remove CITES oversight of movement of specimens, which could present significant risks to vulnerable species. Therefore, amendments to remove the need for registered institutions to qualify for the exemption have not been considered.

Application of Resolution Conf. 12.3 (Rev. CoP17)

34. This Resolution recommends that Parties implement simplified procedures to facilitate and expedite trade in instances where the trade will have negligible impact on the conservation of the species, and specifically provides for the use of simplified procedures for biological samples:
 - A. in the interest of an individual animal;
 - B. in the interest of the conservation of the species concerned or other species listed in the Appendices;
 - C. for judicial or law enforcement purposes;
 - D. for the control of diseases transferable between species listed in the Appendices; or
 - E. for diagnostic or identification purposes.
35. These provisions are applicable to all of the sample types examined by the working group. Whilst the provisions can be used for these sample types, there is little evidence of their use by Parties. The working group proposes amendments to Resolution Conf. 12.3 to encourage its wider use, and allow for easier movement of biological and forensic samples. Proposed amendments are outlined in Annex 2 of this paper.
36. The Resolution requires that Parties' maintain a register of persons and bodies that may benefit from simplified procedures, as well as the species that can be traded. The responses to Notification to the Parties No. 2017/071 did not indicate if or how Parties maintain a register of persons or bodies that may benefit from simplified procedures. The working group recommends that the requirement for persons and bodies to be registered by the Party be removed. The requirement for this register adds additional administrative burden for Parties and permit applicants without providing significant conservation benefit to species. As samples traded in accordance with Resolution Conf. 12.3 are still subject to permitting requirements, Management Authorities still have oversight of the species and volumes traded, and have the ability to refuse the issuance of permits, or not allow simplified permitting procedures, if there is concern that permit holders are not abiding by requirements. The working group considers that this is sufficient to alleviate potential concerns about removal of the register.
37. If removal of the register is not agreed, an alternative may be to recommend that Parties include on their internal registers laboratories that are recognised as an official reference laboratory or collaborating centre by the World Organisation for Animal Health (OIE) as bodies eligible to benefit from simplified procedures. A further suggestion may be to request that the Secretariat maintains a register of bodies that may benefit from simplified procedures for marine biological samples in the context of fisheries management. Such an approach may provide benefits to bodies such as Regional Fisheries Management Organizations, who would only have to be registered once by the Secretariat, rather than by each Party in which they are trading. If this option is preferred, further consideration on the benefits, risks, and resourcing implications is required.
38. Amendments are also proposed to Annex 4 of Resolution Conf. 12.3. The amendments expand the types of biological specimens that are eligible for transport under simplified permitting procedures. Expansion of the annex is based on feedback from the working group, and incorporates forensic sample types that may be transported for enforcement purposes. Expanding the types of biological samples that can be moved under the simplified procedures provisions is considered to be low risk, as Management Authorities still have permitting oversight for these types of samples.

39. Provisions to address the movement of unknown sample types have also been included. This is especially relevant for enforcement samples, where the exact species of the specimen may be unknown. To enable simplified permitting procedures to be applied to these specimens types, text is proposed that would allow permits to be issued for these samples at the genus or family level. This aligns with guidance already provided in the [2017 Guidelines for the preparation and submission of annual reports](#).
40. The most significant feedback in response to Notification No 2017/021 related to the time it takes to receive a permit. Respondents also noted the difficulties encountered when Parties apply inconsistent permitting requirements for specimens. Text is proposed for inclusion in Resolution Conf. 12.3 that encourages Parties to expedite the processing of permit applications for biological samples of the type and size specified in Annex 4, and encourages Parties to waive stricter permitting procedures when processing these applications. The working group considers that quicker issuance of permits, as well as standardized issuance of permits consistent with Convention requirements, would address many of the concerns raised by respondents to the Notification. However it is noted that these proposed amendments do not strictly relate to 'simplified procedures' for permit issuance, but instead relate more broadly to normal permitting procedures.
41. One response to Notification to the Parties No. 2017/021 suggested that CITES documents be issued to Regional Fisheries Management Organizations (RFMOs) that would allow multiple movements of marine biological samples. The working group considers that this approach would be inconsistent with the requirements of the Convention for transport of Appendix I and II specimens for research purposes, where a permit or certificate is required for each international movement, including the introduction from the sea, of these specimens.

Conclusions

42. The working group considers the proposed amendments to Resolution Conf. 11.15 on Non-commercial loan, donation or exchange of museum and herbarium specimens and Resolution Conf. 12.3 on Permits and certificates will address a number of concerns raised by persons, bodies and organisations involved in the movement of CITES samples for wildlife forensic or enforcement purposes; the introduction from the sea of CITES biological samples; and the urgent international movement of CITES biological samples for diagnostic and other health/disease related purposes. In particular enabling the expedited movement of these samples through addition of text in Resolution Conf. 12.3 will address many of the concerns associated with the delay in receiving permits for these items. Broadening the application of Resolution Conf. 11.15 will also allow for a broader range of scientific research to be conducted, furthering forensic research capabilities and allowing for more rapid research response to wildlife disease outbreaks.
43. However, the working group considers that the amendments will not entirely resolve the issues reported. The capacity of some Parties to apply simplified procedures or facilitate expedited movement of samples may limit the full benefit of the application of these resolutions. This can be exacerbated by lack of experience due to the infrequent application of these provisions, which can leave Parties without the facilities or knowledge of how to use them. Building the capacity of Parties to issue permits for biological and forensic samples would complement the amendments proposed by the working group. In addition, wider use of electronic permitting may hold significant benefits for processing times for the issuance of permits, and the working group notes the work of the electronic systems and information technologies working group to facilitate wider access of Parties' to electronic permitting systems.
44. In the interim, providing some guidelines to Parties on how to apply simplified procedures to biological samples may assist Parties' ability to process these types of permit applications. This could be achieved by providing examples of partially complete permits, assisting Parties in registering scientists and scientific institutions in accordance with Resolution Conf. 11.15, or developing guidelines for issuing permits in accordance with the provisions on simplified procedures in Resolution Conf. 12.3, including for unknown specimens.
45. The working group notes that researchers sampling marine species have experienced significant difficulties in meeting CITES requirements for movement of these samples, especially where the samples are first introduced from the sea. Whilst the working group considers that application of simplified procedures in Resolution Conf. 12.3 will provide some benefit to researchers sampling these types of species, many of the issues raised relate more directly to the difficulties in applying introduction from the sea requirements, rather than the application of simplified permitting procedures. The working group considers that Parties and researchers may benefit from further guidance on this issue, potentially through amendments to Resolution Conf. 14.6 (Rev. CoP16) on Introduction from the sea. This Resolution already provides guidelines on how to apply introduction from the sea to various scenarios, however we consider this could be made clearer,

potentially through diagrammatic guidelines that denote the types of permits required in each scenario (for example, for Appendix I/II species, for chartering arrangements, when samples are transported into a third State). Parties' responses to Notification to the Parties No. 2018/067 on Introduction from the sea may provide guidance on future action.

Recommendations

46. The Working Group invites the Standing Committee to:

- a) Consider the work of the electronic systems and information technologies working group and note that wider access of Parties' to electronic permitting services could significantly complement the work of the simplified procedures for permits and certificates working group, and could alleviate many of the concerns regarding slow issuance of permits following application.
- b) Note the availability of tools to assist in application of forensic research such as the ICCWC Guidelines on Methods and Procedures for Ivory Sampling and Laboratory Analyses³ and the ICCWC Best Practice Guide for Forensic Timber Identification⁴.
- c) Note the global review of forensic laboratory capacity undertaken by the Secretariat in conjunction with the United Nations Office on Drugs and Crime⁵, in particular the areas for future development, as well as the recommendations for resource prioritization, and to take these into account when initiating activities to develop wildlife forensic science, or to promote its use to combat wildlife crime.
- d) Note that use of simplified permitting procedures depends on the capacity of Parties to implement partially completed permits and to rapidly process applications for these types of permits. The Standing Committee may wish to consider if the mandate of the working group should be extended to identify ways to build Parties' capacity to apply simplified procedures.
- e) Consider the amendments proposed to Resolution Conf. 11.15 on *Non-commercial loan, donation or exchange of museum and herbarium specimens* (Annex 1) and Resolution Conf. 12.3 on *Permits and certificates* (Annex 2) and endorse the amendments for consideration at the 18th Conference of the Parties.
- f) Note the responses received by Parties in relation to Notification to the Parties No. 2018/067 and consider whether the mandate of the working group should be extended to further consider how simplified procedures can be applied to the movement of marine biological specimens, including the introduction from the sea of these specimens.
- g) Agree to transmit the following Decision to the 18th Conference of the Parties.

Directed to the Secretariat

- 18.XX
- a) The Secretariat shall issue a notification every five years requesting that Parties review and update their register of scientific institutions that are entitled to the exemption provided by Article VII paragraph 6, of the Convention, and communicate any changes to the Secretariat.
 - b) The Secretariat shall issue the first notification 90 days after CoP18. In order to be able to distinguish between the different qualifications of the registered institutions (taxonomic, species conservation research or wildlife forensic research), the Secretariat should encourage Parties to include this information in response to the notification.

³ http://www.unodc.org/documents/Wildlife/Guidelines_Ivory.pdf

⁴ http://www.unodc.org/documents/Wildlife/Guide_Timber.pdf

⁵ <https://cites.org/sites/default/files/eng/cop/17/WorkingDocs/E-CoP17-25-A4.pdf>

Conf. 11.15 (Rev. CoP182)*

Non-commercial loan, donation or exchange of museum and herbarium specimens

RECALLING Resolutions Conf. 1.4 and Conf. 2.14, adopted by the Conference of the Parties at its first and second meetings (Bern, 1976; San José, 1979);

CONSIDERING that Article VII, paragraph 6, of the Convention provides an exemption from the provisions relating to regulation of trade in specimens of species included in Appendices I, II and III for "non-commercial loan, donation or exchange between scientists or scientific institutions registered by a Management Authority of their State, of herbarium specimens, other preserved, dried or embedded museums specimens, and live plant material which carry a label issued or approved by a Management Authority";

RECOGNIZING that this exemption should apply to ~~legally-acquired~~ animal (non-live) and plant specimens, including forensic specimens, that are legally acquired by a registered scientific institution and (re-)exported or imported under the authority of this institution~~a registered scientific institution~~;

CONSIDERING that museum needs for research specimens can have adverse impact on small populations of rare animals and plants;

RECALLING the recommendations of the first meeting of the Conference of the Parties (Bern, 1976);

THE CONFERENCE OF THE PARTIES TO THE CONVENTION

1. ENCOURAGES Parties to register their scientific institutions to facilitate scientific exchange of specimens needed to conduct taxonomic and species-conservation research, and to conduct wildlife forensic research;
2. URGES Parties to contact scientists and scientific institutions in the territory under their jurisdiction to facilitate greater understanding of the scientific exchange provisions of Article VII, paragraph 6, on the non-commercial loan, donation or exchange of scientific specimens;
3. RECOMMENDS that:
 - a) Parties take every opportunity within the scope of the Convention to encourage scientific and forensic research on wild fauna and flora, where this may be of use in conserving species that are threatened with extinction or that may become so;
 - b) in order to reduce the potential impact of research, the Parties encourage their natural history museums, ~~and herbaria~~ and wildlife forensic science laboratories to inventory their holdings of rare and endangered species and make that information widely available to the Parties and the research community. These inventories will allow researchers to efficiently borrow specimens for study or use forensic information contained in reference databases;
 - c) addenda should be added to the inventories as specimens become available. Scientific and Management Authorities of the Parties can use the information in determining whether further collecting of some rare species may be justifiable, or whether the need already can be met by borrowing specimens from other museums or using forensic information provided by forensic laboratories;
 - d) Parties urge their museums, ~~and herbaria~~ and wildlife forensic science laboratories to undertake such inventories and make such information publicly available; ~~and~~

* Amended at the 13th, 14th and 15th, 16th and 17th meetings of the Conference of the Parties.

- e) Registered institutions should be subject to renewal every five years to ensure that only current, valid institutions are eligible for scientific exchange; and
- f) Parties implement the exemption for scientific exchange in Article VII, paragraph 6, as follows:
- i) registration of scientific and forensic research institutions should be done in a manner that extends the exemption to all ~~scientific~~ such institutions meeting certain standards in each Party as determined to be bona fide upon the advice of a Scientific Authority;
 - ii) each Management Authority should communicate to the Secretariat as soon as practicable the names and addresses and the type of research they can provide, of those scientific institutions registered, and the Secretariat without delay then communicate this information to all other Parties;
 - iii) the requirement that the container used to transport the specimens or samples carry a label issued or approved by a Management Authority should be met by authorizing the use of Customs Declaration labels, provided they bear the acronym CITES, identification of contents as herbarium specimens, preserved, dried or embedded museum specimens (including non-live animal specimens) or live plant material for scientific study, for forensic analysis or for diagnostic purposes, the name and address of the sending institution and the codes of the exporting and importing institutions over the signature of a responsible officer of that registered scientific institution; or a label issued by a Management Authority containing the same information and the users of which would be responsible to that body;
 - iv) to prevent abuse of this exemption, it should be limited to shipments of legally obtained specimens, including specimens that are used for wildlife forensic research, as outlined in Annex 1, between registered scientific institutions and, if trade is to or from a non-Party, the Secretariat shall ensure that the institution in this State meets the same standards for registration, as indicated by competent authorities of the non-party governments;
 - v) the exemption should be applied to include frozen museum specimens, duplicate herbarium specimens, wildlife forensic specimens (as outlined in Annex 1), diagnostic samples of the type listed in Annex 4 of Resolution Conf. 12.3 (Rev. CoP18) and all other types of scientific specimens named in Article VII, paragraph 6, including those that are legally collected in one State for shipment to another State as non-commercial loans, donations, or exchanges;
 - vi) the standards for registration of scientific institutions should be as follows:
 - A. collections of animal or plant specimens, and records ancillary to them, permanently housed and professionally curated;
 - B. specimens accessible to all qualified users, including those from other institutions;
 - C. all accessions properly recorded in a permanent catalogue;
 - D. permanent records maintained for loans and transfers to other institutions;
 - E. specimens acquired primarily for purposes of research that is to be reported in scientific publications;
 - F. specimens prepared and collections arranged in a manner that ensures their utility;
 - G. accurate data maintained on specimen labels, permanent catalogues and other records;
 - H. acquisition and possession of specimens accord with the laws of the State in which the scientific institution is located; ~~and~~
 - I. all specimens of species included in Appendix I permanently and centrally housed under the direct control of the scientific institution, and managed in a manner to preclude the use of such specimens for decoration, trophies or other purposes incompatible with the principles of the Convention;

- vii) the standards for registration of forensic research institutions should be as follows:
- A. forensic institutions should be determined by the Management Authority as suitable to provide wildlife forensic analysis;
 - B. animal or plant specimens acquired primarily for purposes of research, to expand forensic research capabilities through development of wildlife reference databases, should be properly recorded in a permanent catalogue;
 - C. permanent records should contain information about loans and transfers to other institutions and the purpose of the transaction;
 - D. institutions should make reference to their quality management system used for research conducted;
 - E. accurate data, for example scientific name, weight, geographical origin, source code, purpose and result of research, should be recorded in the permanent catalogue, and specimens should be accurately and adequately labelled;
 - F. acquisition and possession of specimens accord with the laws of the State in which the scientific institution is located;
 - G. all specimens of species included in Appendix I permanently and centrally housed under the direct control of the forensic institution, and managed in a manner to preclude the use of such specimens for decoration, trophies or other purposes incompatible with the principles of the Convention;
- viii) Diagnostic testing laboratories recognised as an official reference laboratory or collaborating centre by the World Organization for Animal Health (OIE), or laboratories included in the electronic directory of laboratories that conduct wildlife forensic testing maintained by the Secretariat would qualify for registration;
- ix) When registering scientific institutions, Parties should provide to the Secretariat the name, address and contact details (including an email and telephone number) of the institutions for inclusion on the CITES Scientific Institutions register;
- x) scientists who keep private collections should be encouraged to affiliate with registered scientific institutions in order that they may take advantage of the exemption provided in Article VII, paragraph 6;
- xi) all States should take precautions to avoid damage or loss to science of museum, and herbarium, forensic and diagnostic specimens or of any accompanying data;
- xii) this exemption should be implemented to ensure that non-commercial exchange of scientific specimens is not interrupted and that it occurs in a way consistent with the terms of the Convention;
~~and~~
- xiii) if specimens are exchanged, scientific institutions should notify the Party through which they are registered on a quarterly basis what types and volumes of specimens were exchanged; and
- xiv) a five-character coding system for identifying registered institutions should be adopted; the first two characters should be the two-letter country code established by the International Organization for Standardization, as provided in the CITES Directory; the last three characters should be a unique number assigned to each institution by a Management Authority, in the case of a Party, or by the Secretariat, in the case of a non-Party; and
4. REPEALS the Resolutions listed hereunder:
- a) Resolution Conf. 1.4 (Bern, 1976) Museum and herbarium inventories; and
 - b) Resolution Conf. 2.14 (San José, 1979) Guidelines for non-commercial loan, donation or exchange of museum and herbarium specimens.

Annex 1 Types of forensic reference samples that qualify for provisions under non-commercial loan, donation or exchange of museum and herbarium specimens and their use

Type of sample	Typical size of sample	Use of sample
blood and its derivative components	5ml maximum for liquid samples or dry blood sample on a microscope slide, filter paper or swab	species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis
internal tissues (botanical or zoological), fixed	pieces of tissues (5 mm ³ -25 mm ³) in a fixative or histological glass slide containing a +/-5um section of fixed tissue	species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis
internal tissues (botanical or zoological), frozen	pieces of tissues (5 mm ³ -25 mm ³),	species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis
internal tissues, fresh (botanical or zoological, excluding ova, sperm and embryos)	pieces of tissues (5 mm ³ -25 mm ³)	species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis
external tissues including hair, skin, feathers, scales, bone, egg shell, teeth, ivory, horn, leaves, bark, seeds, fruit or flowers	individual samples with or without fixative for ivory: pieces of ivory approximately 3 cm x 3 cm and 1 cm thick, in accordance with <i>ICCWC Guidelines on methods and procedures for ivory and laboratory analysis</i> ⁶ for rhino horn:small amounts of powder/shavings sealed in a tamper proof sample bottle, in accordance with the <i>Procedure for Rhino horn DNA Sampling</i> ⁷	species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; age analysis;
buccal/cloacal/ mucus/nasal/urinary tract/rectal swabs	Small amounts of tissue or cells on a swab in a tube	species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis
cell lines and tissue cultures	no limitation of sample size	species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; age analysis
DNA or RNA (purified)	Up to 0.5 ml volumes per individual specimen of purified DNA or RNA	species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; age analysis
secretions, (saliva, venom, milk, plant secretions)	1-5 ml in vials	species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; age analysis

⁶ https://www.unodc.org/documents/Wildlife/Guidelines_Ivory.pdf

⁷ Republic of South Africa, Department of Environmental Affairs, Procedures for Rhino horn DNA Sampling

Conf. 12.3

(Rev. CoP187)*

Permits and certificates

XII. Regarding the use of simplified procedures to issue permits and certificates

20. RECOMMENDS that:

- a) Parties use simplified procedures to issue permits and certificates to facilitate and expedite trade that will have a negligible impact, or none, on the conservation of the species concerned, e.g.:
 - i) where biological samples of the type and size specified in Annex 4 of the present Resolution are urgently required:
 - A. in the interest of an individual animal;
 - B. in the interest of the conservation of the species concerned or other species listed in the Appendices;
 - C. for judicial or law enforcement purposes;
 - D. for the control of diseases transferable between species listed in the Appendices; or
 - E. for diagnostic or identification purposes;
 - ii) for the issuance of pre-Convention certificates in accordance with Article VII, paragraph 2;
 - iii) for the issuance of certificates of captive breeding or artificial propagation in accordance with Article VII, paragraph 5, or for the issuance of export permits or re-export certificates in accordance with Article IV for specimens referred to in Article VII, paragraph 4; and
 - iv) in other cases judged by a Management Authority to merit the use of simplified procedures;
- b) Parties, in order to simplify procedures concerning the issuance of permits and certificates under the circumstances outlined above:
 - i) ~~maintain a register of persons and bodies that may benefit from simplified procedures, as well as the species that they may trade under the simplified procedures;~~
 - ii) provide persons and bodies determined to be bona fide provide to registered persons and bodies with partially completed permits and certificates that remain valid for a period of up to six months for export permits, 12 months for import permits or re-export certificates, and three years for pre-Convention certificates and certificates of captive breeding or artificial propagation; and
 - iii) authorize the registered persons or bodies holders of partially completed permits to enter specific information on the CITES document when the Management Authority has included in box 5, or an equivalent place, the following:
 - A. a list of the boxes that these registered persons or bodies are authorized to complete for each shipment; if the list includes scientific names, the Management Authority must have included an inventory of approved species (including up to the family level) on the face of the permit or certificate or in an attached annex and provide details of the approvals process required to

* Amended at the 13th, 14th and 15th, 16th and 17th meetings of the Conference of the Parties.

extend the inventory of approved species to encompass species not previously included in an emergency disease event;

- B. any special conditions; and
 - C. a place for the whole name and signature, or in the case where electronic permitting processes are used its agreed electronic equivalent, of the person who completed the document;
- c) concerning trade in biological samples of the type and size specified in Annex 4 of the present Resolution, where the purpose is among those specified in paragraph a) of this section, permits and certificates be accepted that were validated at the time the documents were granted, rather than at the time a shipment was exported or re-exported provided that the container bears a label, such as a Customs label, that specifies 'CITES Biological Samples' and the CITES document number; ~~and~~
 - d) when processing applications for the trade in biological specimens of the type and size and for the use specified in Annex 4 of the present Resolution where the species is unknown, Management Authorities should issue permits to the genus or family level;
 - e) when processing applications for the export of biological samples of the type and size and for the use specified in Annex 4 to the present Resolution, Scientific Authorities develop generic non-detriment advice that would cover multiple shipments of such biological samples, taking into account the impacts of the collection of the specimens of species included in Appendix I or II to determine whether the export or import of biological samples would be detrimental to the survival of the species;
 - f) when processing applications for the trade in biological samples of the type and size and for the use specified in Annex 4 to the present Resolution, Management Authorities that have introduced stricter permitting procedures for CITES listed species are encouraged to waive or customize these measures to ensure standard processes for issuance of CITES documents are applied; and
 - g) to the extent possible Parties expedite the processing of applications for the trade of biological samples of the type and size and for the use specified in Annex 4.

XIV. Regarding acceptance and clearance of documents and security measures

22. RECOMMENDS that:

- a) the Parties refuse to accept permits and certificates if they have been altered (by rubbing out, deleting, scratching out, etc.), modified or crossed out, unless the alteration, modification or crossing-out has been authenticated by the stamp and signature, or its electronic equivalent, of the authority issuing the document;
- b) whenever irregularities are suspected, Parties exchange issued and/or accepted permits or certificates to verify their authenticity;
- c) when a security stamp is affixed to a paper permit or certificate, Parties refuse the document if the security stamp is not cancelled by a signature and a stamp or seal;
- d) Parties refuse to accept any permit or certificate that is invalid, including authentic documents that do not contain all the required information as specified in the present Resolution or that contain information that brings into question the validity of the permit or certificate;
- e) Parties refuse to accept permits and certificates that do not indicate the scientific name of the species concerned (including subspecies when appropriate), except in the case where:
 - i) the Conference of the Parties has agreed that the use of higher-taxon names is acceptable;
 - ii) the issuing Party can show it is well justified and has communicated the justification to the Secretariat;
 - iii) certain manufactured products contain pre-Convention specimens that can not be identified to the species level; ~~or~~

- iv) worked skins or pieces thereof of Tupinambis species that were imported before 1 August 2000 are being re-exported, in which case it is sufficient to use the indication Tupinambis spp.; or
- v) the permit or certificate is for a biological sample of the type and size and for the use specified in Annex 4 to the present Resolution where the species is unknown, in which case it is sufficient to use the scientific name of the genus or family;

Annex 4 Types of biological samples and their use

Type of sample	Typical size of sample	Use of sample
<u>blood and its derivative components, liquid</u>	<u>drops or 5 ml maximum for liquid samples or dry blood sample on a microscope slide, filter paper or swab of whole blood in a tube with anticoagulant; may deteriorate in 36 hours</u>	<u>haematology and standard biochemical tests to diagnose disease; taxonomic research; biomedical research; species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; disease testing/diagnosis, including serology</u>
<u>blood, dry (smear)</u>	<u>a drop of blood spread on a microscope slide, usually fixed with chemical fixative</u>	<u>blood counts and screening for disease parasites</u>
<u>blood, clotted (serum)</u>	<u>5 ml of serum in a tube</u>	<u>biomedical research; species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; disease testing/diagnosis, including serology</u>
<u>internal tissues (botanical or zoological), fixed</u>	<u>pieces of tissues (5 mm³ - 25 mm³) in a fixative or histological glass slide containing a +/-5um section of fixed tissue</u>	<u>Histology and electron microscopy to detect organisms and poisons; taxonomic research; biomedical research; species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; disease testing/diagnosis</u>
<u>internal tissues (botanical or zoological), frozen</u>	<u>pieces of tissues (5 mm³ - 25 mm³)</u>	<u>biomedical research; species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; disease testing/diagnosis</u>
<u>internal tissues (botanical or zoological), tissues, fresh (excluding ova, sperm and embryos)</u>	<u>5 mm³ pieces of tissues (5 mm³ -25 mm³), sometimes frozen</u>	<u>Microbiology and toxicology to detect organisms and poisons; taxonomic research; biomedical research; species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; disease testing/diagnosis</u>
<u>external tissues including hair, skin, feathers, scales, bone, egg shell, teeth, ivory, horn, leaves, bark, seeds, fruit or flowers</u>	<u>Individual samples with or without fixative for ivory: pieces of ivory approximately 3 cm x 3 cm and 1 cm thick, in accordance with <i>ICWC Guidelines on methods and procedures for ivory and laboratory analysis</i>⁸ for rhino horn: small amounts of powder/shavings sealed in a tamper</u>	<u>species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; disease testing/diagnosis; age analysis; biomedical research</u>

⁸ https://www.unodc.org/documents/Wildlife/Guidelines_Ivory.pdf

	<u>proof sample bottle, in accordance with the Procedure for Rhino horn DNA Sampling⁹</u>	
<u>buccal/cloacal/mucus/nasal/urinary tract/rectal swabs</u>	<u>tiny pieces small amounts of tissue or cells on a swab in a tube on a swab</u>	<u>species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; disease testing/diagnosis, including serology; biomedical research growing bacteria, fungi, etc. to diagnose disease</u>
<u>hair, skin, feathers, scales,</u>	<u>small, sometimes tiny pieces of skin surface in a tube (up to 10 ml in volume) with or without fixative</u>	<u>genetic and forensic tests and detection of parasites and pathogens and other tests</u>
<u>cell lines and tissue cultures</u>	<u>no limitation of sample size</u>	<u>cell lines are artificial products cultured either as primary or continuous cell lines that are used extensively in testing the production of vaccines or other medical products and taxonomic research (e.g. chromosome studies and extraction of DNA) biomedical research; species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; disease testing/diagnosis; age analysis</u>
<u>DNA or RNA (purified)</u>	<u>small amounts of blood (up to 5 ml), hair, feather follicle, muscle and organ tissue (e.g. liver, heart, etc.), purified DNA, etc. up to 0.5 ml volumes per individual specimen of purified DNA or RNA</u>	<u>sex determination; identification; forensic investigations; taxonomic research; biomedical research biomedical research; species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; disease testing/diagnosis; age analysis</u>
<u>secretions, (saliva, venom, milk, plant secretions)</u>	<u>1-5 ml in vials</u>	<u>phylogenetic research, production of anti-venom; biomedical research; species identification; determination of geographic origin; sex determination; individual identification; parentage testing; toxicology analysis; disease testing/diagnosis, including serology; age analysis</u>

⁹ Republic of South Africa, Department of Environmental Affairs, Procedures for Rhino horn DNA Sampling