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

Eighteenth meeting of the Conference of the Parties
Colombo (Sri Lanka), 23 May – 3 June 2019

Interpretation and implementation matters

General compliance and enforcement

ENFORCEMENT MATTERS

1. This document has been prepared by the Secretariat.

2. In Resolution Conf. 11.3 (Rev. CoP17) on *Compliance and enforcement*, paragraph 20 b), the Conference of the Parties instructs the Secretariat to:

   b) submit a report on enforcement matters at each Standing Committee meeting and each regular meeting of the Conference of the Parties.

3. In Resolution Conf. 11.3 (Rev. CoP17), paragraph 14, the Conference of the Parties directs the Secretariat to, subject to available resources:

   a) analyse, in collaboration with ICCWC partners, the annual reports on illegal wildlife trade;

   b) share with Parties information relating to the analysis to support further enforcement activities; and

   c) submit a report at each meeting of the Standing Committee and the Conference of Parties based on the analysis and other relevant information available through ICCWC partners.

4. In Resolution Conf. 17.6 on *Prohibiting, preventing, detecting and countering corruption, which facilitates activities conducted in violation of the Convention*, in paragraph 13 a) and b), the Conference of the Parties requests the Secretariat:

   a) to continue to report credible allegations of corrupt practices, or the results of its own investigations that lead to credible suspicions of corruption, to the relevant national authorities and intergovernmental entities; and

   b) to include relevant information on such instances, and the outcome of investigations, in its report on enforcement matters to each Standing Committee meeting and each regular meeting of the Conference of the Parties, together with details of any anti-corruption activities the Secretariat has undertaken, along with its activities in implementation of Article XIII of the Convention;

5. In Resolution Conf. 17.6, paragraphs 14 and 15, the Conference of the Parties:

   14. REQUESTS the Standing Committee to take note of instances of corruption affecting the implementation or enforcement of the Convention and, where appropriate, make recommendations to the Parties concerned and to the Conference of the Parties on ways in which it may be combated more effectively, whilst also considering possible actions that the Committee itself might take under Resolution Conf. 14.3; and

   15. REQUESTS the Standing Committee with support from the Secretariat, to ensure close cooperation of CITES with UNCAC and UNTOC.

6. At its 17th meeting (CoP17, Johannesburg, 2016), the Conference of the Parties adopted Decisions 17.83 to 17.85 on *Enforcement matters*, as follow:

Directed to the Secretariat

17.83 The Secretariat shall, subject to external funding:

a) request the International Consortium on Combating Wildlife Crime (ICCWC) to develop guidelines that could be used to promote adequate integrity policies, and assist Parties to mitigate the risks of corruption in the trade chain as it relates to CITES-listed specimens;

b) work with the World Bank and other ICCWC partner organizations to mobilize the "Wildlife crime and anti-money laundering" training programme developed under the auspices of ICCWC, to enhance capacity amongst law-enforcement agencies, prosecutors and judges, to detect and investigate illegal transactions and suspicious activities associated with wildlife crime, and to effectively prosecute and adjudicate money-laundering cases associated with wildlife crime;

c) in consultation with identified laboratories, and in collaboration with ICCWC partner organizations and the ICCWC Wildlife Forensics Advisory Group, compile 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; and

d) convene a Task Force on illegal trade in specimens of CITES-listed tree species, consisting of representatives of Parties affected by illicit trafficking in such specimens, ICCWC partner organizations, other intergovernmental organizations, such as the Food and Agriculture Organization of the United Nations (FAO), regional enforcement networks, other Parties and experts. The Task Force should develop strategies to combat illegal trade in specimens of CITES-listed tree species, including measures to promote and further strengthen international cooperation.

17.84 The Secretariat shall report on the implementation of Decision 17.83 at the 69th and 70th meetings of the Standing Committee.

Directed to the Standing Committee

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 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.

7. The present document provides information on activities conducted regarding the implementation of the Resolutions and Decisions outlined in paragraphs 2 to 6 above, and in addition to those described in other documents prepared for the present meeting, activities and developments on enforcement matters that have taken place since the 17th meeting of the Conference of the Parties.

Corruption: Implementation of Decisions 17.83 paragraph a) and 17.84

8. Work led by the United Nations Office on Drugs and Crime (UNODC) in support of the implementation of Decision 17.83, paragraph a), as reported upon at the 69th and 70th meetings of the Standing Committee (SC69, Geneva, November 2017; SC70, Sochi, October 2018), is ongoing. At the time of writing, a draft *Integrity Guide for Wildlife Management Agencies* has been shared for input and comment with the Secretariat, ICCWC partner agencies and relevant experts. Arrangements are also in place for an Experts Group Meeting to be held in Vienna, Austria, in January 2019, to further evolve the guide. It is expected that

the final guide will be ready to be launched at CoP18, and the Secretariat will provide a further oral update in this regard at the present meeting.

9. The Secretariat believes that the guide will be of great value to wildlife authorities, CITES Management and Scientific Authorities and others in supporting them to put in place the measures and mobilize the activities needed to establish strong and robust institutions able to respond to and overcome the risks and challenges posed by corruption. Parties are encouraged to actively pursue and promote the use of the integrity guide, and the Secretariat in this regard prepared draft decision 18.AA presented in Annex 1 to the present document, for consideration by the Conference of the Parties.

10. Activities to deliver training to institutions in selected countries on the identification of corruption risks and addressing it are foreseen under the ICCWC Strategic Programme 2016-2020. Funding secured to date will enable convening and facilitating workshops and activities in at least two countries to support the development and implementation of national anti-corruption programmes, including through the deployment of medium term mentors in these countries, as may be needed, to support the implementation of key measures. To further expand upon this work, the Secretariat proposed draft decision 18.BB presented in Annex 1, for consideration by the Conference of the Parties.

Corruption: Implementation of Resolution Conf. 17.6, paragraphs 13 and 14

11. In accordance with the provisions of Resolution Conf. 17.6, the Secretariat addressed the matter of corruption in its reporting to SC69 and SC70 [documents SC69 Doc. 31.1 and SC70 Doc. 30.1]. As highlighted by the Secretariat at CoP17, it is important to note that the vast majority of officials responsible for CITES implementation and enforcement are committed to their task and, on a day-to-day basis, work diligently to ensure that international trade is legal, sustainable and traceable. However, as highlighted by the Secretariat in its reports to SC69 and SC70, organized crime groups continue to target a number of CITES-listed species because of their high monetary value, and this makes the officers responsible for regulating trade in specimens of these species potentially vulnerable to corruption. Reports of corrupt activities remains of concern; therefore, it remains essential for Parties to continue to step up efforts to address it. As highlighted in Resolution Conf. 17.6, failure to prohibit, prevent, and counter corruption which relates to the implementation or enforcement of CITES greatly undermines the effectiveness of the Convention.

12. In its reporting to the Standing Committee, the Secretariat highlighted a number of corruption related incidents that occurred since CoP17, which further demonstrate the continued need to be vigilant in addressing corruption. The Secretariat also noted, however, that while such incidents are unfortunate, it is encouraging to see that positive action is often taken when corrupt activities are detected, or when offenders attempt to corrupt officials through bribes. The most recent examples include the sentencing of four people in Thailand, including a public prosecutor, for involvement in the smuggling of rhinoceros horns;[1] and, in Zambia, two magistrates were sentenced to imprisonment for their involvement in rhinoceros poaching.[2]

13. Regarding addressing corruption, a recent development worth noting is the conclusion of funding agreements between the United Kingdom of Great Britain and Northern Ireland and UNODC in December 2018, which include a GBP 1.5 million grant to strengthen UNODC's activities on wildlife and forestry crime investigations to identify corruption.[3]

Anti-Money Laundering: Implementation of Decisions 17.83, paragraph b) and 17.84

14. At CoP17, ICCWC launched its *Wildlife Crime and Money Laundering (AML) training programme*,[4] designed to help investigators, prosecutors and others in the criminal justice system overcome the investigative, legal and procedural challenges related to wildlife crime and money laundering cases. At SC69 and SC70, the Secretariat reported that the World Bank in June 2017 successfully piloted the training programme in Kenya, and that a further training led by the World Bank was conducted in the United Republic of Tanzania, in November 2017. The training in the United Republic of Tanzania was customized to the local context, and included a case simulation based upon an actual ivory smuggling case. The training required participants to

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1 *https://www.news24.com/World/News/thailand-sentences-3-to-prison-over-smuggling-of-rhino-horns-20181120*

2 *https://www.lusakatimes.com/2018/11/26/two-local-court-magistrates-sentenced-to-years-imprisonment-with-hard-labour-over-rhino-killing/*

3 *http://www.unodc.org/unodc/en/frontpage/2018/December/uk-announces-new-financial-contributions-to-support-unodcs-anti-corruption-work.html?ref=fs1*

4 *https://cites.org/eng/prog/iccwc.php/Tools*

conduct, *inter alia,* a financial investigation through a multidisciplinary team, make inquiries to determine suspect profiles, perform net worth and network analyses, connect financial transactions, and determine which assets may be restrained for future forfeiture.

15. Information on actual cases provided by trained officers highlighted that wildlife trafficking often generates significant profits for the organized crime groups involved, and demonstrated that the laundering of money derived from wildlife trafficking through the financial sector has a corrosive effect on economic and governance systems. The Secretariat noted that the reduction of such crimes and enabling the authorities to better detect the illicit financial flows generated by wildlife crime is therefore important to strengthen financial integrity and support economic growth. Building capacity to use anti-money laundering tools is expected to strengthen institutional capacity and interagency cooperation, and to shift the focus of law enforcement from the lowest level of the trafficking chain – the poachers – to those managing and organizing the activities behind these trafficking operations.

16. Based on course evaluations and observations from the two pilot deliveries, the training programme was further developed and refined. It is anticipated that future trainings will likely take a multi-regional approach, connecting practitioners from source, transit and destination countries. Implementation of the ICCWC AML training programme is included among the activities in the ICCWC Strategic Programme 2016-2020,[5] and the Secretariat will continue to work closely with the World Bank and other ICCWC partners to mobilize the resources for the programme.

17. Regarding anti-money laundering, a development worth noting is the establishment of an *Illegal Wildlife Trade Financial Taskforce* in October 2018,[6] under the auspices of United for Wildlife, a project of the Royal Foundation of the Duke and Duchess of Cambridge and the Duke & Duchess of Sussex. The Taskforce, comprising representatives from financial institutions and experts from organizations working on wildlife crime, will work to mobilize financial institutions in the fight against these crimes. The institutions involved signed the *Mansion House Declaration*[7] focusing on six commitments, including sharing resources and intelligence to disrupt illegal financial flows associated with wildlife crime.

Wildlife forensic testing: Implementation of Decisions 17.83, paragraph c) and 17.84

18. As reported at SC69 and SC70, the Secretariat worked closely with UNODC regarding the development of an electronic directory of laboratories that conduct wildlife forensic testing, meet the minimum quality assurance standards, and are able and willing to carry out wildlife forensic analyses upon request from other countries. This work built upon the global review of forensic laboratory capacity commissioned by the Secretariat in cooperation with UNODC in 2016, available as Annex 4 to document CoP17 Doc. 25.

19. Nine laboratories, as presented in Annex 3 to the present document, were approved for listing in the directory. The Secretariat elaborated on this in paragraphs 20 to 26 below. The full report on the work conducted to facilitate the development of an electronic directory of laboratories is available as Annex 4 to the present document. Annex 3 is available in English, French and Spanish, while Annex 4 is available in English only.

20. To develop the directory, 128 laboratories were invited to participate in a survey. Seventy-five responses were received, and of these, 63 laboratories stated they conduct some type of forensic casework, while a further nine indicated that they are developing casework capacity.

21. To be considered for inclusion in the directory, responses needed to indicate conformance to the following criteria:

    a) The laboratory must carry out forensic casework;

    b) The laboratory must operate in accordance with a quality management system;

    c) The laboratory must have passed an external audit of its quality management system, conducted by a competent third party, within the past two years;

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5 https://cites.org/eng/prog/iccwc.php/Strategy

6 https://www.unitedforwildlife.org/projects/financial-taskforce/

7 https://www.unitedforwildlife.org/wp-content/uploads/2018/09/UfW-FT_Declaration_FINAL.pdf

d) The laboratory must be able and willing to carry out wildlife forensic analyses upon request from other countries; and

e) The laboratory must explicitly request to be included in the directory.

22. With respect to the listing laboratories in the directory, based on the answers provided by the respondents, 23 laboratories met the first three criteria, however, of these 17 were willing to offer international services and be listed in the directory. These consisted of four laboratories in Africa, two laboratories in Asia, six laboratories in Europe, three laboratories in North America and two in Oceania. These 17 laboratories were invited to submit evidence of conformance with the criteria outlined above. Nine laboratories subsequently submitted information and documentation for consideration, which was evaluated by a UNODC wildlife forensic expert, and by an independent panel of scientists drawn from the Technical Working Group of the Society for Wildlife Forensic Science, as the professional body engaged by ICCWC to advise the Consortium on wildlife forensic science matters.[8] Based on the evaluations conducted, all nine laboratories, as presented in Annex 3 to the present document, were found to fulfil all criteria and were approved for listing in the directory.

23. At SC70, the Secretariat informed Parties that it has developed a webpage on Wildlife forensics, available on the CITES website (see paragraph 42 below). At the time of writing, the Secretariat is working to make the directory available on the CITES webpage on *Wildlife Forensics*, and this work will be finalized prior to CoP18.

24. A number of laboratories indicated their interest to be listed in the directory, but did not meet all five criteria and could therefore not be listed at this time. These laboratories were provided with feedback explaining why they could not at present be included in the directory, and with guidance on what should be addressed in order to qualify for inclusion in the future. Although the work conducted shows that a relatively small number of laboratories that meet the set criteria for inclusion in the directory currently exist, many laboratories are in the process of addressing matters such as standardization and implementation of formal quality assurance procedures, as indicated by 'future plans' reported by respondents. It is envisaged that the number of laboratories qualifying for inclusion in the directory will steadily grow over coming years, as the wildlife forensic community develops under a series of ongoing capacity-building programmes.

25. It is recognized that the criteria relating to quality assurance may, for many laboratories, represent a significant challenge to inclusion in the directory. Lack of inclusion in the directory should not be interpreted as a lack of ability to conduct forensic casework. However, from the perspective of the mainstream forensic science community, the criteria developed represent a recognized minimum set of quality requirements that should be in place in order to demonstrate to a courtroom that forensic evidence has been produced in a robust and reliable manner.

26. In addition to the laboratories that at present do not qualify for inclusion in the directory, there are likely a number of laboratories that did not respond to the survey or were inadvertently omitted from the survey distribution. It is important that opportunities for future listings are made available to interested laboratories. To achieve this, the Secretariat will work closely with wildlife forensic experts from relevant ICCWC partner agencies and the Society for Wildlife Forensics Science, to consider annually new applications and, further, to review existing listings every two years. In this regard, the Secretariat proposes an amendment to Resolution Conf. 11.3 (Rev. CoP17) on *Compliance and enforcement*, as presented in Annex 2 to the present document, by adding a new sub-paragraph d), to paragraph 8 under *Regarding enforcement activities of the Secretariat,* in the Resolution.

Illegal trade in CITES-listed tree species: Implementation of Decisions 17.83, paragraph d), and 17.84

27. The convening of the Task Force on illegal trade in specimens of CITES-listed tree species, called for in Decision 17.83, paragraph d), was subject to the availability of external funding. Although such funding has been secured under the ICCWC Strategic Programme 2016-2020, as highlighted in the document on the *International Consortium on Combating Wildlife Crime (ICCWC)* prepared for the present meeting, technical and administrative procedures caused delays for the disbursement of funds between ICCWC partners, and the negotiation of the agreements with donors. As a result, it was regrettably not yet possible to convene the Task Force.

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[8] *For more information on the see paragraph 32 in the document on the International Consortium on Combating Wildlife Crime (ICCWC) prepared for the present meeting.*

28. In its reporting to SC69 and SC70, the Secretariat highlighted a number of initiatives and developments, aimed at addressing illegal trade in tree species that took place since CoP17. For example: the Global Forestry Crime Conferences hosted by INTERPOL in Lyon, France, in June 2017,[9] and September 2018; the establishment of an *INTERPOL Working Group on Forestry Crime* to improve the effectiveness of law enforcement operations targeting organized criminal networks engaged in illegal logging and illegal international trade in tree species; and regional forestry crime meetings organized by INTERPOL. The latter provided an excellent platform to support countries in their efforts to fight illegal trade in CITES-listed tree species, in particular by strengthening enforcement cooperation at the regional level. The Secretariat further highlighted the *Law enforcement assistance programme to reduce tropical deforestation* (Programme LEAP), a partnership between INTERPOL, UNODC and the RHIPTO-Norwegian Center for Global Analyses.[10]

29. The Secretariat reported to the Standing Committee that, since CoP17, information about large-scale illegal trade in specimens of CITES-listed tree species continued to come to its attention, in particular CITES-listed timber from Africa. The scale of the problem is further highlighted by the case study on rosewood contained in the threat assessment report presented as Annex 3 to document CoP18 Doc. 34 on *Wildlife crime enforcement support in West and Central Africa.* This shows the continued urgent need for Parties to enhance enforcement efforts to address illegal trade in tree species, and the continued need to convene the Task Force on illegal trade in specimens of CITES-listed tree species. The Secretariat therefore proposes that Decision 17.83, paragraph d), be replaced with draft decision 18.CC in Annex 1 to the present document.

30. Should the Conference of the Parties adopt draft decision 18.CC, the Secretariat will, in developing the agenda for the Task Force on illegal trade in specimens of CITES-listed tree species, take into consideration initiatives and developments such as those mentioned in paragraph 28 above to facilitate complementarity and synergies where possible and as appropriate.

Movement of samples for forensic or enforcement purposes: Implementation of Decision 17.85, paragraph a)

31. At SC69, Decision 17.85, paragraph a) on efficient international movement of samples for forensic or enforcement purposes was discussed under the agenda item on *Simplified procedures for permits and certificates.* The Standing Committee established an intersessional working group on simplified procedures for permits and certificates,[11] which was mandated to consider this matter, among others. The working group reported to the Committee at SC70[12] and, based on its deliberations the Committee prepared CoP18 Doc. 56 on *Simplified procedures for permits and certificates*. As a result, Decision 17.85, paragraph a) will be addressed under that agenda item at the present meeting.

Collaboration between CITES, UNCAC and UNTOC: Implementation of Decision 17.85, paragraph b) and Resolution Conf. 17.6, paragraph 15

32. At SC69, the Secretariat reported that it jointly hosted an event with UNODC in November 2017 at the seventh session of the Conference of the States Parties to the United Nations Convention against Corruption (UNCAC), in Vienna, Austria.[13] Both the Secretary-General of CITES and the Executive Director of UNODC participated in this event, to encourage UNCAC Parties to further step up efforts to tackle corruption associated with illicit wildlife trade. A statement of the Secretary-General of CITES was read in plenary at the Conference. The Standing Committee at SC69, requested the Secretariat to continue to explore opportunities to progress the implementation of Decision 17.85, paragraph b).[14]

33. The Secretariat reported at SC70 that it continued to work closely with UNODC; funding was made available through ICCWC to support the participation of experts at a side event led by UNODC on behalf of ICCWC in the margins of the 27th session of the Commission on Crime Prevention and Criminal Justice, in Vienna, in May 2018. France and the United Kingdom, together with the UNODC Corruption and Economic Crime Branch and the UNODC Global Programme for Combating Wildlife and Forest Crime, co-hosted the event.

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9 https://www.interpol.int/News-and-media/News/2017/N2017-082

10 https://www.interpol.int/News-and-media/News/2018/N2018-062

11 https://cites.org/sites/default/files/eng/com/sc/69/sum/E-SC69-SR.pdf

12 https://cites.org/sites/default/files/eng/com/sc/70/E-SC70-36.pdf

13 https://www.cites.org/eng/news/sg/CITES_SG_Addressing_Corruption_Linked_Wildlife_Forest_Fisheries_Crime_UNCAC_side_event_06112017

14 https://cites.org/sites/default/files/eng/com/sc/69/sum/E-SC69-SR.pdf

The event provided a platform to develop a better understanding about how corruption linked to wildlife crime manifests itself, and how it could be addressed. The Secretariat also collaborated closely with UNODC on an event on fighting corruption to stop wildlife crime, co-sponsored by the Permanent missions of Gabon, Germany and the United Kingdom, in the margins of the United Nations General Assembly debate to mark the 15th anniversary of the UNCAC, in New York in May 2018. Funding was also made available through ICCWC to support the participation of experts at this event. The Executive Director of UNODC placed strong emphasis on the need to tackle wildlife crime by taking action against associated corruption. He also highlighted the adoption of Resolution Conf. 17.6 at CoP17, and that addressing corruption is a core part of both the ICCWC Strategic Programme for 2016-2020, and UNODC's Global Programme to Combat Wildlife and Forest Crime.[15]

34. At SC70, the Secretariat stated that Decision 17.85, paragraph b) had been achieved, and that this matter could be further pursued through Resolution Conf. 17.6, paragraph 15. The Standing Committee agreed to recommend to the Conference of the Parties that Decision 17.85, paragraph b) has been implemented and can be deleted, and that strengthening cooperation and collaboration between CITES, the UNCAC and UNTOC be further pursued in accordance with the provisions of Resolution Conf. 17.6, paragraph 15.[16] This recommendation is reflected in paragraph 56, sub-paragraph d), of the present document.

35. The Secretariat also takes this opportunity to draw to the attention of Parties the *Guide on Drafting Legislation to Combat Wildlife Crime*, developed by UNODC and launched in the margins of the 9th meeting of the Conference of the Parties to UNTOC in October 2018. The objective of the guide is to assist Parties in protecting wildlife by criminalizing serious wildlife offences, and thereby enhancing prosecution and criminal justice capacities. The guide includes model provisions and guidance that can assist Parties in reviewing and amending existing legislation and adopting new legislation addressing wildlife crime, in line with existing international agreements and instruments such as CITES, UNCAC and UNTOC, while taking into account national circumstances and policies as well as the composition and structure of national sectors. Parties are encouraged to draw upon this important tool, in their efforts to address wildlife crime.

Analysis of annual illegal trade reports: Implementation of Resolution Conf. 11.3 (Rev. CoP17), paragraph 14

36. The first annual illegal trade reports from Parties, in accordance with paragraph 3 in Resolution Conf. 11.17 (Rev. CoP17) on *National reports*, were due on 31 October 2017, covering data from 2016. The Secretariat received annual illegal trade reports for 2016 from 63 Parties, of which 39 Parties submitted their reports by the deadline. For 2017, the Secretariat received 60 reports from Parties by late December 2018, of which 51 were submitted by the deadline. The Secretariat would like to thank Parties for the reports submitted. Information on the status of submission of annual illegal trade reports by Parties can be found on the Annual illegal trade report webpage on the CITES Secretariat website.

37. Unless the reporting Party specified otherwise, the Secretariat, in accordance with Resolution Conf. 11.17 (Rev. CoP17), paragraph 4, shared the annual illegal trade reports received from Parties with UNODC for use in ICCWC global research and analysis studies on wildlife and forest crime.[17] As reported in document CoP18 Doc. 15.5 on the *International Consortium on Combating Wildlife Crime*, UNODC is currently developing the second edition of the World Wildlife Crime Report, and the Secretariat is liaising closely with UNODC on this work. The annual illegal trade data provided by Parties will make a significant contribution to this report, which will be based on the best data and case studies available, and backed by in-depth analysis, similar to the first World Wildlife Crime Report[18].

38. Data compiled from annual illegal trade reports submitted by Parties also informed a number of reports and documents prepared for SC70, such as those on Asian big cats, cheetahs, eels, great apes, lions and marine turtles. This demonstrates the value that can be derived from the data collected through annual illegal trade reports. If used correctly, this data can become an accessible and powerful tool to inform decision-making and support the development of appropriate law enforcement responses to wildlife crime. The Standing Committee also prepared document CoP18 Doc. 36 on the *Storage and management of illegal trade data*

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15 *https://www.unodc.org/unodc/en/speeches/2018/uncac15-wildlife.html*

16 *https://cites.org/sites/default/files/eng/com/sc/70/exsum/E-SC70-Sum-09-R1.pdf*

17 *Regarding 2016 data one Party requested that its data should not be shared, and regarding 2017 data, two Parties requested that their data should not be shared.*

18 *https://www.unodc.org/documents/data-and-analysis/wildlife/World_Wildlife_Crime_Report_2016_final.pdf*

collected through the Parties annual illegal trade reports, including a draft decision proposing to contract UNODC to establish, host and maintain a database for the management of CITES annual illegal trade data.

39. The implementation of Resolution Conf. 11.3 (Rev. CoP17), paragraph 14, is subject to available resources. Due to a lack of external funding, the Secretariat was not able to conduct an analysis and prepare a report for SC69 and SC70. However, the Secretariat is pleased to inform Parties that it secured limited funding in late September 2018. However, due to time constraints, and considering that UNODC is currently developing the second edition of the World Wildlife Crime Report, expected to be finalized by CoP18, the Secretariat did not pursue preparing a report for the present meeting. The Secretariat intends to use the funding it secured for the preparation of a report for the 73rd meeting of the Standing Committee, focusing primarily on illegal trade in wildlife as it relates to key species and matters that will be discussed at that meeting, and for which limited information regarding illegal trade is available. The Secretariat would like to take this opportunity to thank the United States of America for the generous funding it provided in support of the implementation of Resolution Conf. 11.3 (Rev. CoP17), paragraph 14.

40. The 63 annual illegal trade reports received from Parties containing 2016 data represents a 34% submission rate, while the 60 annual illegal trade reports received from Parties containing 2017 data represents a 33% submission rate by Parties. This shows that there remains significant room for improvement in the submission of annual illegal trade reports, and Parties are encouraged to review their implementation of Resolution Conf. 11.17 (Rev. CoP17), paragraph 3, to ensure full compliance with the provisions of this Resolution. Good overall submission of annual illegal trade reports by Parties is essential to ensure that data analysed is as complete as possible, and to avoid data gaps that could skew the results of the analyses. This is also important for the long-term production of the UN Sustainable Development Goal (SDG) indicator 'Proportion of traded wildlife that was poached or trafficked' (Target 15.7) for which CITES and UNODC are the custodian agencies.[19]

41. The Secretariat takes this opportunity to encourage Parties to draw upon the *Guidelines for the preparation and submission of the CITES annual illegal trade report*, adopted by the Standing Committee at SC69. These guidelines, including a sample reporting format, is available to Parties as an Annex to Notification to the Parties No. 2018/009, dated 18 January 2018.

Secretariat tools and resources

42. As reported at SC70, the Secretariat is pleased to inform Parties that it developed a new webpage on Enforcement, available on the CITES website. The Secretariat will, as appropriate, consolidate information relevant to enforcement matters on this webpage, including information on tools and resources, relevant Resolutions and Decisions, meeting documents, Notifications to the Parties, and other. In addition, the Secretariat developed a new webpage on Wildlife forensics where, to encourage the use of forensic applications to the fullest extent possible to combat wildlife crime, the Secretariat will consolidate tools and information relevant to this topic.

43. Further, the Secretariat developed a webpage on Cheetahs, and at the time of writing, was working to finalize the development of a webpage on *Wildlife crime linked to the Internet.* The Secretariat reports in more details on this in the documents on *Illegal trade in cheetahs (Acinonyx jubatus)* and *Combating wildlife cybercrime*, prepared for the present meeting.

Closed user groups on the WCO CENcomm platform

44. The Secretariat, at the request of Parties and in collaboration with the World Customs Organization (WCO), created a number of closed user groups on the WCO CENcomm platform. The latest of these being the *Cheetah Closed User Group* communicated to Parties through Notification to the Parties No. 2018/046 of 7 May 2018, and the *Closed User Group for the CITES Tortoise and Freshwater Turtles Task Force*, as reported upon in paragraph 11 of document SC69 Doc. 64.

45. The WCO CENcomm platform provides a secure global communication tool for cooperation and information exchange, and plays an important role in facilitating national and international communication and cooperation among authorities. At SC70, however, the Secretariat reported to the Standing Committee that the closed user groups established at the request of Parties have not attracted significant use, and they seem to become dormant shortly after being established. The Secretariat takes this opportunity to remind

[19] https://unstats.un.org/sdgs/files/Tier%20Classification%20of%20SDG%20Indicators_27%20November%202018_web.pdf

Parties of the recommendation agreed by the Committee at SC70, encouraging Parties to communicate the establishment of such closed user groups to, and encourage their use among relevant national authorities.

ICPO-INTERPOL notice system

46. ICPO-INTERPOL has a unique notice system used by all its member countries, and the Secretariat would like to take this opportunity to remind Parties of the value of the INTERPOL Notice System. These notices are colour-coded and each colour corresponds to a specific purpose. It is encouraging to note that in the current reporting period, some Parties again successfully used INTERPOL notices[2021] to trace and locate suspects involved in wildlife crime, as well as to share information and intelligence amongst law enforcement authorities about *modus operandi* and concealment methods. INTERPOL notices can be requested through the INTERPOL National Central Bureau (NCB) of each country, and Parties are encouraged to increasingly draw upon the INTERPOL notice system to share information, and trace and locate criminals involved in serious wildlife crime offences.

Certificates of Commendation

47. Through the Secretary-General's Certificate of Commendation, the Secretariat formally recognizes and awards exemplary enforcement actions. These certificates serve as an incentive to enforcement authorities to continue their excellent wildlife-related activities, and serves as a motivation to the wider law enforcement community to engage in innovative enforcement activities that further the aims of the Convention in preventing wildlife crime.

48. Since CoP17, the Secretary-General has awarded the Certificate of Commendation to authorities in India[22] and Singapore.[23]

Final remarks

49. The global collective effort across governments, the UN, international and national organizations, the private sector, local communities and others, to combat wildlife crime, has continued since CoP17.

50. In November 2016, Viet Nam hosted the *Hanoi Conference on Illegal Wildlife Trade*,[24] which culminated in the adoption of the Hanoi Statement on Illegal Wildlife Trade. In May 2018, Viet Nam's Ministry of Agriculture and Rural Development together with the British Embassy in Viet Nam announced the *One-year review of progress on proposed actions*[25] of the *Hanoi Statement on Illegal Wildlife Trade.* The report, compiled from contributions by 25 countries and international organizations, highlighted the significant work implemented since the Hanoi Conference. In October 2018, the government of the United Kingdom hosted the *London Conference on Illegal Wildlife Trade*,[26] again bringing together global leaders to step up the fight against wildlife crime. This conference was the fourth international conference of its kind, following the London Conference on the Illegal Wildlife Trade hosted by the United Kingdom in February 2014,[27] the Kasane Conference on the Illegal Wildlife Trade hosted by Botswana in March 2015,[28] and the Hanoi Conference on Illegal Wildlife Trade in 2016. In London, more than 50 countries adopted the London 2018 Declaration, reaffirming their commitment to address illegal trade in wildlife.

51. In February 2017, a joint extraordinary meeting of the South African Development Community's (SADC) Ministers of Environment and Natural Resources and of the Organ on Defence, Peace and Security Co-operation held in Ezulwini, Eswatini, adopted the SADC Law Enforcement and Anti-poaching Strategy

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20 *https://www.interpol.int/en/News-and-media/News/2018/N2018-012/*

21 *https://elpais.com/politica/2018/01/25/actualidad/1516904191_819614.html*

22 *https://www.cites.org/sites/default/files/notif/E-Notif-2017-076.pdf*

23 *https://cites.org/sites/default/files/notif/E-Notif-2017-051.pdf*

24 *https://www.cites.org/eng/Intervention_CITES_Secretary-General_at_Hanoi_Conference_on_Illegal_Wildlife_Trade_17112016*

25 *http://iwthanoi.vn/announcement-publishing-one-year-review-progress-proposed-actions-hanoi-statement-illegal-wildlife-trade/*

26 *https://www.cites.org/eng/news/cites-secretariat-welcomes-2018-london-conference-on-illegal-wildlife-trade_12102018*

27 *https://cites.org/sites/default/files/eng/news/sundry/2014/london-wildlife-conference-declaration-140213.pdf*

28 *https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/417231/kasane-statement-150325.pdf*

(LEAP).[29] The SADC LEAP Strategy aims at reducing poaching and illegal trade in wildlife, and at enhancing law enforcement capacity in the SADC region by 2021. In July 2018, a meeting of the Economic Community of West African States (ECOWAS), in Abuja, Nigeria, adopted the *Strategic Areas of Intervention and Priority Recommendations to Develop a Counter Wildlife Trafficking Response in West Africa.*[30] This document confirms six priority areas and 47 strategic priority recommendations that the ECOWAS member State representatives identified as necessary for countering wildlife crime in the West Africa subregion. ECOWAS member States also adopted the Abuja recommendations on the development of a *West Africa Strategy on Combating Wildlife Crime*,[31] encouraging high-level decision-makers to support the development and adoption of a West Africa Strategy on Combating Wildlife Crime, the establishment of a West Africa Network to Combat Wildlife Crime, and the creation of sustainable funding mechanisms for the long term implementation of the Strategy.[32] Further to this, mobilizing the African Union, the *African Strategy on Combating Illegal Exploitation and Illegal Trade in Wild Fauna and Flora in Africa*[33] is also ongoing.

52. In September 2017, the 71st session of the United Nations General Assembly adopted a resolution on Tackling illicit trafficking in wildlife, which reinforces the focus on key areas in the fight against illicit trafficking in wildlife, including enhanced national legislation, supporting sustainable livelihoods, stronger law enforcement, countering corruption, deploying information technologies and undertaking well targeted demand reduction efforts. The resolution places strong emphasis on the role of CITES, the importance of implementing the Decisions and Resolutions adopted by the CITES Conference of the Parties, and highlights the importance of the work of ICCWC. It further calls upon Parties to ensure that legal domestic markets for wildlife products are not used to mask the trade in illegal wildlife products, and that Global Environment Facility (GEF) funding is aligned with CITES implementation.

53. As reported in the document on the *International Consortium on Combating Wildlife Crime (ICCWC)* prepared for the present meeting, the Consortium continues to deliver an increasing number of well-targeted activities to strengthen responses to wildlife crime, thanks to generous donor funding for the implementation of the ICCWC Strategic Programme 2016-2020. In January and February 2017, ICCWC supported Operation Thunderbird, a global law enforcement operation tackling the illegal trade in wildlife and timber. The operation involved police, customs, border agencies, environment, wildlife and forestry officials from 45 countries and territories and resulted in over 1,400 seizures, 390 investigations, and over 88 prosecutions. This was followed by a month-long law enforcement operation code-named Operation Thunderstorm, from 1 to 31 May 2018, initiated by the *INTERPOL Wildlife Crime Working Group*, supported by ICCWC, and coordinated by INTERPOL and the WCO. The Operation targeted criminals and global networks behind wildlife crime, and involved police, customs, border, wildlife, forestry and environment agencies from 92 countries and territories. *Operation Thunderstorm* resulted in 1,974 seizures, including significant amounts of timber, over 1.3 tonnes of elephant ivory, 8 tonnes of pangolins scales, 4,000 birds and 27,000 reptiles. It enabled enforcement authorities to identify 1,400 suspects and triggered investigations, arrests, and prosecutions worldwide.

54. Activities under the GEF *Global Wildlife Programme,*[34] funded under GEF-6, is ongoing in 19 African and Asian countries, supporting conservation and efforts to address wildlife crime. The new GEF four year funding cycle known as GEF-7, running until 2022, will build upon this work and mobilize further significant funding in support of conservation and addressing wildlife crime.[35] On 3 March 2018, World Wildlife Day was celebrated for the fifth time, under the theme *Big Cats: Predators under threat*,[36] as reported upon in more detail in the document on the *United Nations World Wildlife Day* prepared for the present meeting. Also in March 2018, a *Global Coalition to End Wildlife Trafficking Online* was launched, with the aim to reduce the illegal online trade in wildlife by 80 percent by 2020.[37] In April 2018, the Travel and Tourism Declaration on

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29 *https://www.sadc.int/news-events/news/ministers-environment-and-natural-resources-and-organ-defence-peace-and-security-adopt-sadc-law-enforcement-and-anti-poaching-st/*

30 *https://cites.org/sites/default/files/eng/com/sc/70/Inf/E-SC70-Inf-02.pdf*

31 *https://cites.org/sites/default/files/eng/com/sc/70/Inf/E-SC70-Inf-03.pdf*

32 *https://cites.org/sites/default/files/eng/com/sc/70/Inf/E-SC70-Inf-02.pdf*

33 *https://au.int/sites/default/files/documents/33796-doc-african_strategy_strategy_africaine_au.pdf*

34 *https://www.thegef.org/sites/default/files/publications/GWPBrochureWEB.pdf*

35 *http://www.thegef.org/news/gef-council-approves-first-work-program-new-funding-cycle-and-measures-improve-efficiency*

36 *http://www.wildlifeday.org/content/messages*

37 *https://news.nationalgeographic.com/2018/03/wildlife-watch-tech-companies-online-wildlife-crime-coalition* /

Illegal Trade in Wildlife, entitled *The Buenos Aires Declaration,*[38] was adopted by the industry body, the World Travel & Tourism Council.

55. The above represents only a few of the initiatives and activities that are ongoing, or were initiated or implemented since CoP17. It serves to reflect the continued global determination to put an end to the significant detrimental economic, social and environmental impacts of wildlife crime. This momentum is critical and remains essential, in light of the high levels of poaching and illegal trade in wildlife that persists.

Recommendations

56. The Conference of the Parties is invited to:

    a) adopt the draft decisions in Annex 1 to the present document;

    b) adopt the proposed amendment to Resolution Conf. 11.3 (Rev. CoP17) on *Compliance and enforcement*, by adding a sub-paragraph d) to paragraph 8 under *Regarding enforcement activities of the Secretariat*, as proposed in Annex 2 to the present document.

    c) delete Decisions 17.83 and 17.84, as they have been implemented or, as appropriate, incorporated in the proposed draft decisions in Annex 1 to the present document.

    d) delete Decision 17.85, paragraph b) as it has been implemented, and strengthening cooperation and collaboration between CITES, the UNCAC and the UNTOC can be further pursued in accordance with the provisions of Resolution Conf. 17.6, paragraph 15.

[38] https://www.wttc.org/-/media/files/summits/buenos-aires-2018/wttc-buenos-aires-declaration-with-signatures.pdf

Draft decisions on enforcement

Directed to Parties

18.AA Parties are encouraged to actively pursue and promote the use of the *Integrity Guide for Wildlife Management Agencies* to strengthen responses to and overcome the risks and challenges posed by corruption.

Directed to the Secretariat

18.BB The Secretariat shall, subject to external funding, work with the United Nations Office on Drugs and Crime (UNODC) and other partner organizations within the International Consortium on Combating Wildlife Crime (ICCWC) to promote the use of the *Integrity Guide for Wildlife Management Agencies* and to, upon request, support Parties in implementing activities and measures to address the risks and challenges posed by corruption.

18.CC The Secretariat shall, subject to external funding, convene a Task Force on illegal trade in specimens of CITES-listed tree species, consisting of representatives of Parties affected by illicit trafficking in such specimens, ICCWC partner organizations, other intergovernmental organizations such as the Food and Agriculture Organization of the United Nations (FAO), regional enforcement networks and other experts. The Task Force should work to develop strategies to combat illegal trade in specimens of CITES-listed tree species, including measures to promote and further strengthen regional and international cooperation.

Proposed amendment to Resolution Conf. 11.3 (Rev. CoP17) on *Compliance and enforcement*

The Secretariat propose to amend Resolution Conf. 11.3 (Rev. CoP17) on *Compliance and enforcement*, by adding a sub-paragraph d), to paragraph 8 under *Regarding enforcement activities of the Secretariat*, as follows:

. . .

d) in close collaboration with forensic experts from relevant ICCWC partner agencies and the Society for Wildlife Forensics Science as the professional body engaged by ICCWC to advise the Consortium on wildlife forensic science matters, consider annually any new applications from laboratories for inclusion in the electronic directory of laboratories that conduct wildlife forensic testing and, further, to review existing listings every two years;

IMPLEMENTATION OF DECISION 17.83, PARAGRAPH C)

List of laboratories currently included in the directory established under Decision 17.83, paragraph c).

Laboratory Name	**Party / CITES Region**	**Quality Assurance Standard**	**Sample Types Analysed**	**Contact Details**
Australian Centre for Wildlife Genomics	Australia, Oceana	ISO17025	Terrestrial animal, Aquatic animal, Rhinoceros horn, Elephant ivory	Greta Frankham Greta.Frankham@austmus.gov.au
Criminalistic Service, Guardia Civil	Spain, Europe	ISO17025	Terrestrial animal, Aquatic animal, Plant, Microorganisms	David Parra Pecharromán crimquimica@guardiacivil.org
Genomia s.r.o.	Czech Republic, Europe	ISO17025	Terrestrial animal	Markéta Dajbychová marketa.dajbychova@genomia.cz
Institute of Forensic Medicine	Switzerland, Europe	ISO17025	Terrestrial animal, Aquatic animal, Elephant ivory	Morf Nadja Nadja.Morf@irm.uzh.ch
James Hutton Institute	United Kingdom, Europe	ISO 9001	Plant, Diatoms, Soil	Lorna Dawson Lorna.Dawson@hutton.ac.uk
Netherlands Forensic Institute (NFI)	The Netherlands, Europe	ISO17025	Terrestrial & Aquatic animal, Plant, Timber, Rhino horn, Elephant ivory, Pangolin	Irene Kuiper i.kuiper@nfi.minvenj.nl
Science and Advice for Scottish Agriculture (SASA)	United Kingdom, Europe	ISO17025	Terrestrial animal, Aquatic animal, Rhinoceros horn, Elephant ivory	Lucy Webster Lucy.Webster@sasa.gsi.gov.uk
US Fish and Wildlife Service, National Forensic Laboratory	United States of America, North America	ISO17025	Terrestrial animal, Aquatic animal, Timber, Rhino horn, Elephant ivory, Pangolin	Ed Espinoza ed_espinoza@fws.gov
University of California	United States of America, North America	ISO17025	Terrestrial animal, Rhinoceros horn	Christina D Lindquist cdlindquist@ucdavis.edu

Development of an electronic directory of laboratories that conform to a defined minimum standard for conducting wildlife forensic testing

Commissioned by the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

Undertaken by the United Nations Office on Drugs and Crime (UNODC)

Contributors:

Rob Ogden
Simon Dures
The Society for Wildlife Forensic Science

Executive Summary

In 2016, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Secretariat commissioned a global review of forensic laboratory capacity. The resulting report reviewed laboratory capacity for performing wildlife forensic analysis in support of CITES implementation and enforcement (Annex 4 to document CoP17 Doc. 25 on Enforcement matters), and aimed to facilitate understanding about the range of laboratories and services in operation, whilst the details of the laboratories concerned remained confidential in nature. To further build upon this work, the Conference of the Parties to CITES at its 17th meeting (CoP17, Johannesburg, 2016), adopted Decision 17.83, paragraph c), which directed the CITES Secretariat to compile an electronic directory of wildlife forensic laboratories.

To implement this Decision, the United Nations Office on Drugs and Crime (UNODC), at the request of the CITES Secretariat, led work to enable the creation of a publicly available directory of global laboratories that conduct wildlife forensic testing, meet minimum quality assurance standards and, subject to available resources, are able and willing to carry out wildlife forensic analyses upon request from other countries.

This work was conducted in two stages. Firstly, to revise the original 2016 review of wildlife forensic laboratories, a survey was issued requesting updates from previous responders and new submissions from laboratories that did not take the first survey. Secondly, wildlife forensic laboratories were requested to indicate their desire to be listed in the public directory of wildlife forensic laboratory services. Those that responded positively, were asked to provide evidence that they meet the following criteria:

1. The laboratory must carry out forensic casework;
2. The laboratory must operate in accordance with a Quality Management System;
3. The laboratory must have passed an external audit of its Quality Management System, conducted by a competent third party, within the past two years;
4. The laboratory must be able and willing to carry out wildlife forensic analyses upon request from other countries; and
5. The laboratory must explicitly request to be included in the directory.

Laboratory submissions were evaluated against these criteria by a UNODC wildlife forensic expert and by an independent panel of experts drawn from the Technical Working Group of the Society for Wildlife Forensic Science.

A total of 75 responses were received from 128 laboratories invited to participate (58% response rate). Of these, 63 (84.0%) laboratories stated they conduct some type of forensic casework, while a further nine indicated that they are developing casework capacity.

The responses in relation to analytical capacity broadly reinforced the findings of the 2016 report. The most common technique employed remained DNA analysis, followed by morphology, except for timber samples where the opposite trend was observed. Over one third

(22/63) of the labs claiming to conduct forensic analysis did not follow any type of quality management system, which remains a concern, as quality assurance is a fundamental requirement in forensic casework analysis.

With respect to listing laboratories in the directory, based on the answers provided by the respondents, 23 laboratories met the first three criteria, however, of these only seventeen were willing to offer international services and be listed in the directory (criteria 4 and 5). Of these seventeen, nine submitted evidence for review, resulting in all nine labs being approved for directory listing.

The directory of laboratories is to be made available on the CITES webpage on *Wildlife Forensics*.[1] As the wildlife forensic community develops under a series of ongoing capacity building programmes, it is envisaged that the number of laboratories qualifying for inclusion in the directory will grow. To facilitate this, it is proposed that the directory accepts new applicants annually and reviews existing listings every two years.

For further details on any part of this report please contact: cites.info-cites@un.org

[1] https://www.cites.org/eng/prog/imp/Wildlife_forensics

Contents

Part 1. Introduction

CITES is an international agreement between governments with the aim of ensuring the international trade in specimens of wild animals and plants does not threaten their survival. CITES works by subjecting international trade in selected species to certain import, export, re-export and introduction controls.

Against a backdrop of widespread illegal trade in wildlife that is affecting the conservation of traded species and of biodiversity as a whole, the need for effective wildlife law enforcement is now widely recognized by national governments and inter-governmental organizations, including CITES and the UNODC.

Tackling wildlife crime requires a well-coordinated, multi-faceted approach, with good international cooperation and the use of all the tools and resources available; this includes forensic science applications. One issue routinely faced by enforcement agencies is the definitive identification and characterisation of wildlife specimens in trade, necessary to demonstrate legal or illegal activity. The definitive identification of evidence in criminal investigations can often only be achieved through the application of forensic science. In the case of CITES implementation and enforcement, the investigative questions to address in relation to the identification of animals and plants, or their parts and derivatives, can generally be categorized into five groups, concerning:

- the species involved;
- the geographic origin of a specimen;
- the wild or captive/cultivated source of a specimen;
- the individual origin of a specimen; and
- the age of a specimen.

The purpose of this report is to provide, for the first time, a list of laboratories able to offer quality assured international wildlife forensic analysis services in support of CITES implementation and enforcement.

This document begins by providing a brief introduction to wildlife forensic science (Part 2), followed by the background to this particular review (Part 3). The survey methods used to conduct the current review are summarized in Part 4, with survey results describing laboratory capacity and capabilities are presented in Part 5. Finally, the criteria required for inclusion in the electronic directory are specified and the current laboratories meeting those criteria listed (Part 6).

Part 2. Wildlife Forensic Science

What is forensic science?

Forensic science is an applied discipline concerned with the controlled use of analytical scientific methods to generate evidence in relation to legal proceedings. The forensic scientist addresses the needs of prosecution or defense investigators, by applying appropriate tools to answer questions that arise during the investigation or prosecution of a case.

In this context, it would normally be incorrect to refer to a particular method as being 'forensic'. For example, DNA profiling methods employed to individually identify a sample (person, animal, plant) can be performed within a university undergraduate project, or to provide compelling evidence to support a murder conviction; but only one of these would be considered forensic analysis. The term 'forensic' refers to the purpose of the analytical method and the way in which that method is performed, rather than the method itself.

In its strictest sense the term 'forensic' relates solely to the production of scientific evidence for legal proceedings and the development of tools specifically for that purpose. This sets a very high standard for the methods, data and laboratory procedures employed in any forensic analysis. Each aspect of the analysis must be formally validated to demonstrate fitness-for-purpose and details of the analytical process must be thoroughly documented within an established quality assurance system. All activities involved in the generation of evidence may be subject to legal scrutiny, and in many countries, all personnel involved may be considered as witnesses in the eyes of the law. In this respect, the standard of forensic analysis required to investigate crimes involving wildlife is no different to that applied to crime against humans.

In addition to ensuring that a laboratory can generate forensic evidence using appropriate methods and processes, capacity for wildlife forensic science depends on the broader organizational framework surrounding its use. Any wildlife forensic investigation extends from the point of evidence collection through to the presentation of analytical findings in court. In the simplest scenario this will still involve issues of evidence preservation, secure collection, storage and transport to the lab, followed by appropriate use of the forensic evidence by investigators and the ability of the judiciary (and jury) to accept and understand the evidence as it is presented. Such issues must be considered when seeking to identify suitable facilities for forensic analysis, or the development of capacity in this area.

Wildlife forensic science

The investigation of crime against wildlife may raise questions that can be addressed through a range forensic analytical approaches, from mainstream applications such as human DNA profiling and ballistics, to specialist applications such as species identification. The term *wildlife forensics* is commonly understood to refer to the process of identifying non-human biological evidence relating to wildlife crime.

Quality Assurance

The level of confidence in any laboratory analytical result relates to the degree of quality assurance (QA) surrounding the production of the data. The QA concept is fundamental to the performance of any test where the results are later relied upon by a third party, such as medical diagnostics or forensics. QA is usually delivered through a Quality Management System, which describes a series of control processes and protocols surrounding the implementation of a test. Quality Management Systems cover all aspects of test implementation, from method performance and validation, through staff training, laboratory operating procedures and the systems in place for reporting and reviewing analytical results. While a Quality Management System is designed to be specific to a laboratory process, general standards have been developed, such as ISO17025 or Good Laboratory Practice (GLP) regulations, which describe general QA requirements for laboratory testing and under which individual laboratories may choose to become formally accredited.

Laboratory accreditation to the ISO17025 standard has become a requirement for human forensic laboratories in many countries and is considered the gold standard in wildlife forensic testing. However, accreditation to such a standard is time consuming, expensive and may require a level of staffing and infrastructure that is simply not realistic for wildlife forensic laboratories to achieve, irrespective of the quality of their work. While a number of wildlife forensic laboratories do hold ISO17025 accreditation, an absolute requirement for laboratory accreditation to this level in wildlife forensic science is an unrealistic expectation at this time. To address this issue, the Society for Wildlife Forensic Science (SWFS), has established a set of Standards and Guidelines specifically for several disciplines within wildlife forensics (SWFS Standards and Guidelines 2018). For details on this system, SWFS can be contacted.

The technical nature of laboratory quality assurance standards complicates the task of law enforcement agencies in selecting a suitable laboratory for forensic analysis of wildlife specimens, and can create difficulties in court when assessing the reliability of evidence. This is a matter that has been recognized by the International Consortium on Combatting Wildlife Crime (ICCWC)[2]. In response, UNODC, in cooperation with its ICCWC partners, have developed guidelines for the analysis of wildlife specimens to inform investigators, scientists and the judiciary on their respective roles and responsibilities, and the standards that should be met by different actors in a wildlife crime investigation[3]. At the very least, laboratories conducting wildlife forensic testing should have implemented a Quality Management System and casework documentation system, available for review by relevant investigation agencies and the court. Furthermore, this Quality Management System should be subject to internal auditing and external assessment by an independent third party.

Ultimately, it is the decision of the court to determine the relevance, veracity and strength of any evidence presented to it. It is however the responsibility of both agencies responsible for wildlife law enforcement and forensic scientists to ensure that the evidence will withstand legal scrutiny and deliver forensically robust evidence that is relevant to an investigation.

For a more detailed review of the techniques used in forensics science please see, 'A review of wildlife forensic science and laboratory capacity to support the implementation' and enforcement of CITES', commissioned by the CITES Secretariat and undertaken by UNODC.

[2] https://cites.org/eng/prog/iccwc.php
[3] 'Guidelines on Methods and Procedures for Ivory Sampling and Laboratory Analysis'; 'Guide for Forensic Timber Identification'.

Part 3. Background

In 2016, the CITES Secretariat commissioned a global review of wildlife forensic laboratory capacity, which was undertaken by the UNODC. All CITES Parties were invited to participate and data was collated from 110 institutions in 39 countries. This review provided, for the first time, a comprehensive picture of laboratory capacity at the global level for performing forensic analysis in support of CITES implementation and enforcement.

Given the developing nature of wildlife forensic science and its broad community of scientific stakeholders, the purpose of the review was not to judge the quality or performance of any laboratory or practitioner, but rather to take an inclusive approach and gather information on all on going wildlife forensic activities, including applied research. The review was confidential in nature and was designed to elicit self-declared information on capacity from as many laboratories as possible.

The full report on the review is available as Annex 4 to document CoP17 Doc. 25 on Enforcement matters, prepared for CoP17.

To further build upon this work, the Conference of the Parties at CoP17, adopted Decision 17.83, paragraph c), which directs that the CITES Secretariat to, subject to external funding:

c) in consultation with identified laboratories, and in collaboration with ICCWC partner organizations and the ICCWC Wildlife Forensics Advisory Group, compile 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.

To implement this Decision, UNODC, at the request of the CITES Secretariat, led work to enable the creation of a publicly available electronic directory of laboratories worldwide that conduct wildlife forensic testing, meet minimum quality assurance standards and, subject to available resources, are able and willing to carry out wildlife forensic analyses upon request from other countries. This work was conducted under the auspices of ICCWC, and implemented in consultation with previously identified laboratories and in close collaboration with the CITES Secretariat and the Society for Wildlife Forensics Science (SWFS).[4] It built upon the global review of forensic laboratory capacity commissioned by the Secretariat in cooperation with UNODC, available as Annex 4 to document CoP17 Doc. 25.

[4] See paragraph 25 in document SC70 Doc. 30.2 on the *International Consortium on Combating Wildlife Crime (ICCWC)*

Part 4. Methods

The information included in the current review was gathered through an online survey. Expanding on the global review of forensic laboratory capacity presented to CITES CoP17, the survey had two aims:

1. To update the original confidential survey of wildlife forensic laboratories by requesting updates from previous responders and new submissions from laboratories that have not previously taken the survey.

2. To establish a publically available database of quality assured wildlife forensic laboratories willing and able to provide analysis services to other countries in support of CITES-related investigations.

To achieve these aims, a series of questions was devised to assess current laboratory capacity to perform wildlife forensic casework. Laboratories were also asked whether they would like to consider offering international forensic casework analysis services, and be included in an online electronic directory of laboratories. Inclusion of laboratories in the directory was subject to meeting defined criteria on quality assurance process. These criteria are described in Part 6 and are available via the CITES webpage on *Wildlife Forensics* to enable any existing or new laboratory not included in the electronic directory from the outset to determine if it meets the specified criteria before requesting inclusion.

All the laboratories invited to complete the survey were assured that no information provided, would be shared with any third parties without the express prior permission of the responding organisation.

Questions put to the laboratories were designed to cover a range of topics relevant to wildlife forensic science, including: the nature of analysis performed, the methods used, the taxa identified, the investigative questions addressed, the reference materials used, the quality assurance systems in place and the level of staff training. As with the previous survey, the review included specific focus on capacity for the identification of elephant ivory and rhinoceros horn. For the current survey, questions regarding laboratory capacity for methods associated with the identification of pangolin were also included.

The survey was designed to maximise response and completion rates while minimising various quality issues commonly encountered when gathering data using self-reported or self-complete methods. Each respondent's path through the survey was dictated by how they answered each question, so as to reduce the need to answer questions that were not relevant to a particular laboratory's capacity (see Appendix for survey map). The questionnaire was distributed via individual emails that were provided during the previous survey. The emails explained the purpose of the survey and use of the data whilst also providing a unique respondent link.

Almost 130 individualized invitations were sent out via email. These were targeted towards organisations that had provided contact details in responses to the previous survey. A timeframe of approximately six weeks was provided to participants to complete the questionnaire.

Upon receipt, the questionnaire responses were entered into Microsoft Excel to enable data cleaning, recoding and analysis. Data recoding consisted of using logic functions in Excel to combine answer options and allow filtering.

Part 5. Survey Results

Summary of response level

A total of 75 responses were received from 128 invitations to participate (58% response rate). This is a 32% reduction compared to the response rate of the previous survey, however, this survey was only open by invitation and was largely restricted to laboratories believed to have some forensics capacity, primarily identified from the earlier survey.

Of the 75 responses, 53 (70.7%) conduct both research and forensic casework, 10 (13.3%) only conduct forensics casework, and 12 (16.0%) only do non-casework research, resulting in 63 (84.0%) laboratories stating they conduct some type of forensic casework (figure 1). Of the 12 responses solely performing research work, nine (75%) are striving to be in a position to provide forensic casework. One laboratory stated that it conducts no wildlife related forensics or lab work and, as a result, was removed from the analysis.

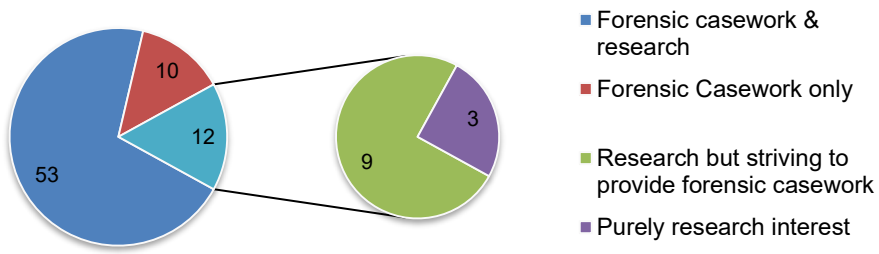


Figure 1. Type of work conducted by laboratories responding to the survey.

The 74 remaining responses included laboratories from 30 different countries, distributed across all CITES regions (Figure 2). This is a reduction of nine countries compared with the previous survey. Every region had responses from at least two laboratories, with Europe having the most responses from laboratories conducting forensic casework (Figure 3).

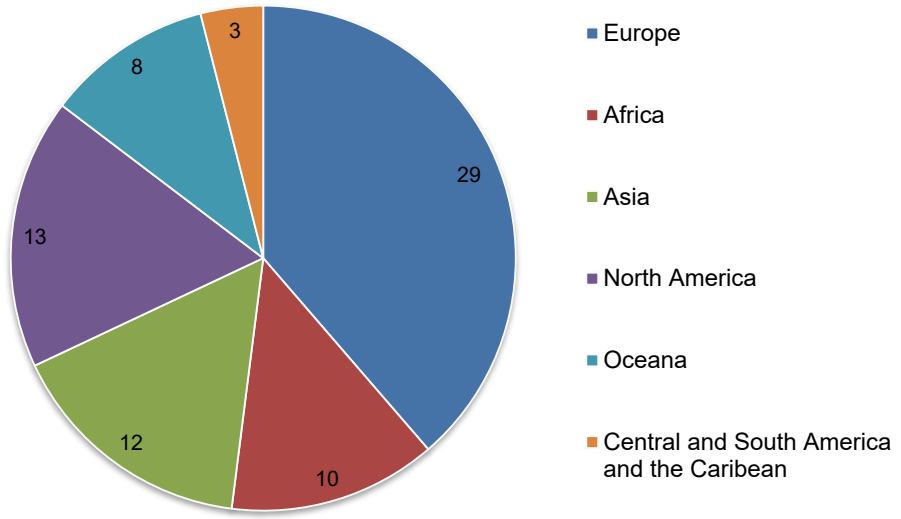


Figure 2. Distribution of survey responses by CITES region.

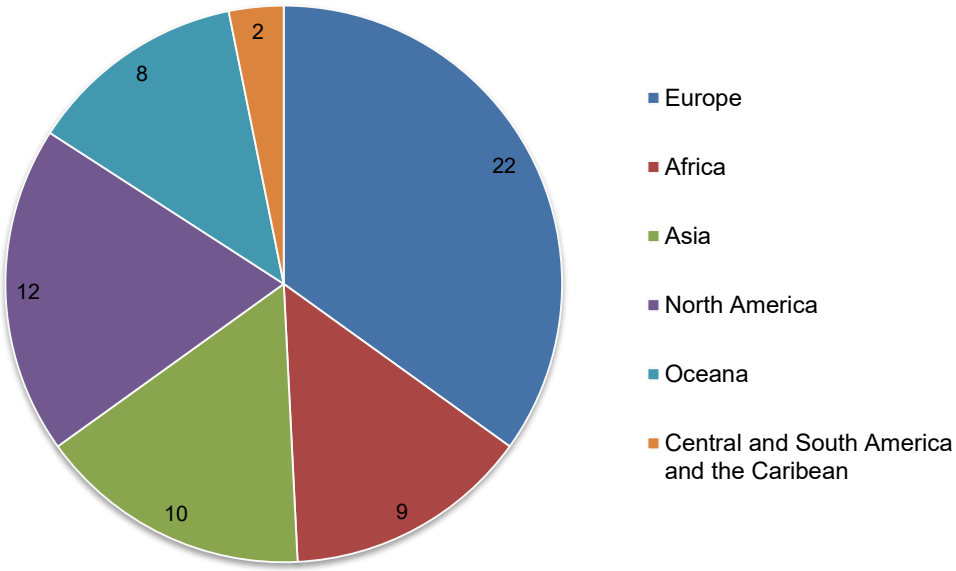


Figure 3. Distribution across CITES regions of laboratories stating they perform forensic casework.

Analytical techniques used across taxa

The most common taxonomic group analyzed is terrestrial animals and the majority of this work is performed using DNA analysis (figure 4). This is similar to what was reported in the previous survey. DNA analysis is the most commonly used technique for all samples types except for timber, for which morphology/anatomy is most commonly used. In all other cases morphology/anatomy is the second most commonly used technique. This pattern was similar to that found previously, although the number of laboratories conducting DNA work on plants has outstripped the number conducting morphology/anatomy. Chemical profiling is also quite commonly used for plant and timber work.

The relative lack of chemical profiling and stable isotope work across the board is likely to reflect both the level of forensic method development for these techniques, for which fewer validation studies have been conducted, and the limited availability of equipment in forensic laboratories, as opposed to research labs. Less than three laboratories (8%) for each sample type performed other techniques.

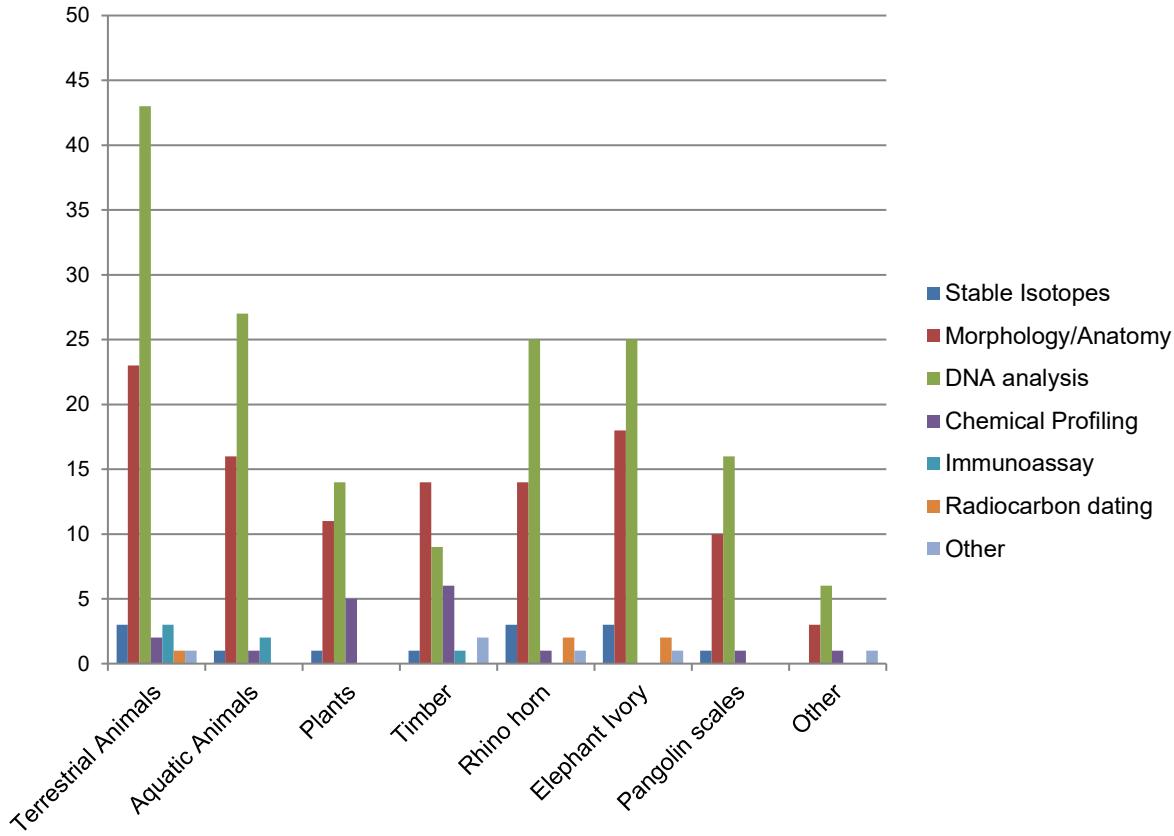


Figure 4. Sample types used and methodologies performed across all laboratories stating they conduct forensic casework.

Investigative questions

Species identification is by far the most widely available service with almost all the forensics labs, 59 of 63 (94%), able to address this issue to some extent (Figure 5). The figure for individual identification was much lower, with only 37 of the 63 (59%) forensic casework labs offering this service and even then, for only a limited number of species. Less than half of all the forensics labs that responded to the survey are able to perform sex determination or geographic origin work (29 and 28 respectively). Of the investigative questions addressed, ageing is the least widely covered, with services only provided by seven (11%) labs.

These results reflect the investigative drivers (species ID is the most commonly asked question), the body of background reference data (greater for animals than plants), the technical complexity of the test and the fact that species identification methods are typically generic and applicable across multiple taxa. This last point is in contrast to parentage, individual and geographic origin identification methods that are typically species specific, requiring much greater laboratory investment to develop and maintain.

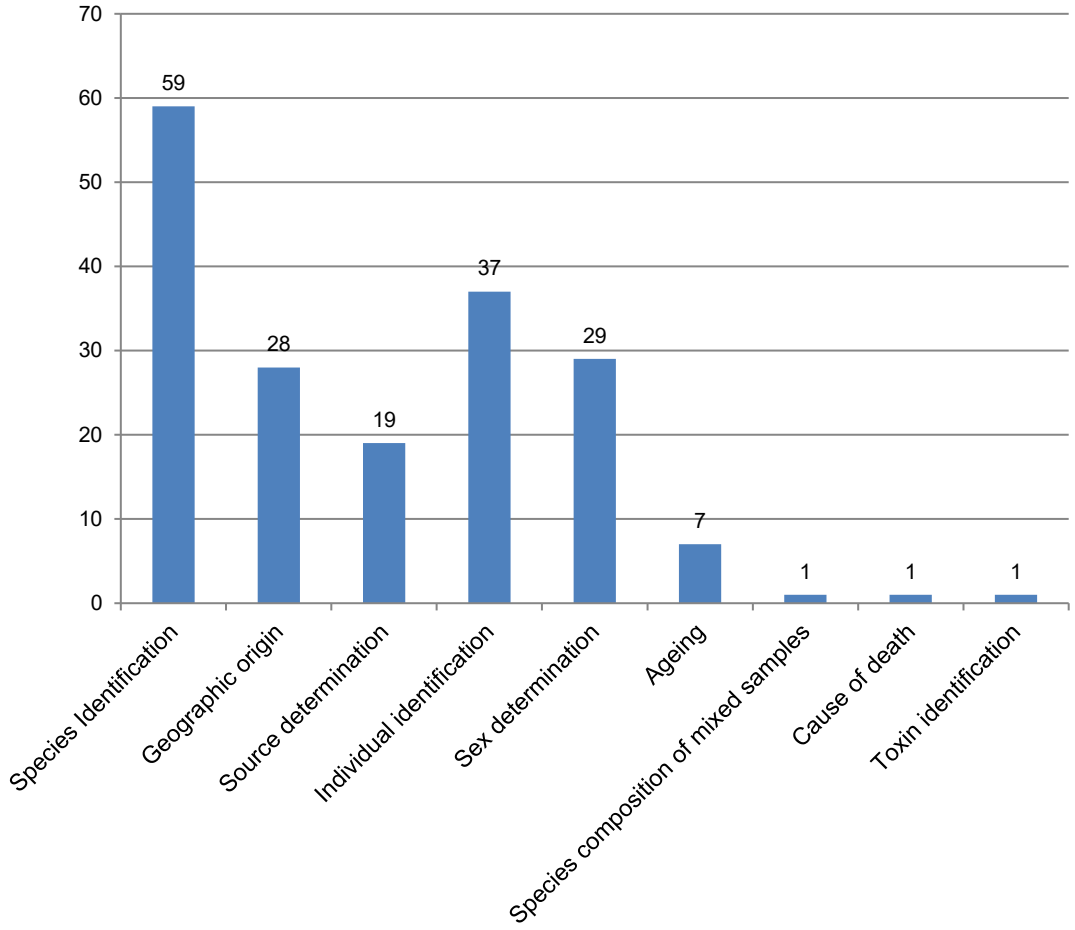


Figure 5. Number of laboratories able to address different types of investigative question.

Quality Assurance (QA)

Two thirds of the laboratories (41 labs, 66%) conducting wildlife forensic analysis stated that they conform to some form of QA standard (Figure 6). This was much higher than the previous survey, which identified just 44% conforming to a QA standard. This improved result is likely due to the targeted nature of this survey. Of the 41 labs that implement to some form of QA system, 95% (39 labs) conduct auditing, 63% (26 labs) of which submit themselves to external auditing, with the remainder (32%, 13 labs) having only their own internal audit system. Three labs provided conflicting answers stating that whist conforming, they do not follow any particular standard.

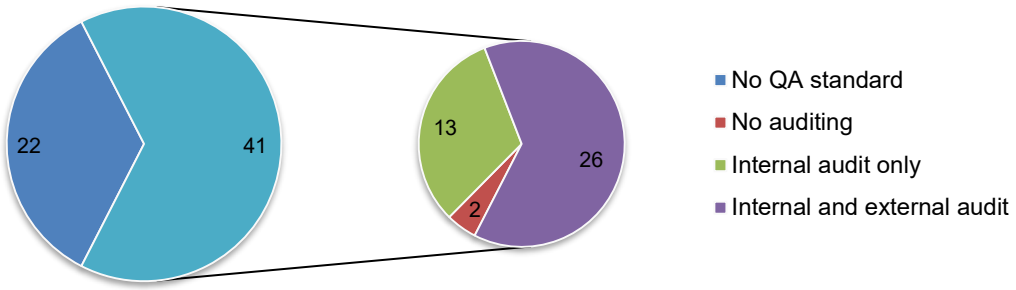


Figure 6. Quality Assurance (QA) standards followed across all labs stating they conduct forensic analysis.

Of all the labs stating they undergo both internal and external auditing, 35 (85%) identified the use of one of the standards listed as an option in the survey (ISO17025, GLP/GMP, ISO9001, SWFS) (Figure 7). By far the most common QA standard adhered to is ISO 17025 (24 labs, 69%), considered to be the gold standard for forensic science, followed by SWFS (15 labs, 43%). A number of labs stated they followed standards of guidelines not listed. These were: International Society for Forensic Genetics (ISFG) recommendations, forensic regulations issued from national governing bodies, standards issued by national universities and ANAB forensic science (American National Accreditation Board).

It should be noted that standards are not mutually exclusive, so for example, a single lab may be accredited under ISO9001 (quality management), ISO17025 (analytical testing) and adhere to SWFS standards. For the purposes of inclusion within the electronic directory, passing an external audit under any recognized standard will be acceptable.

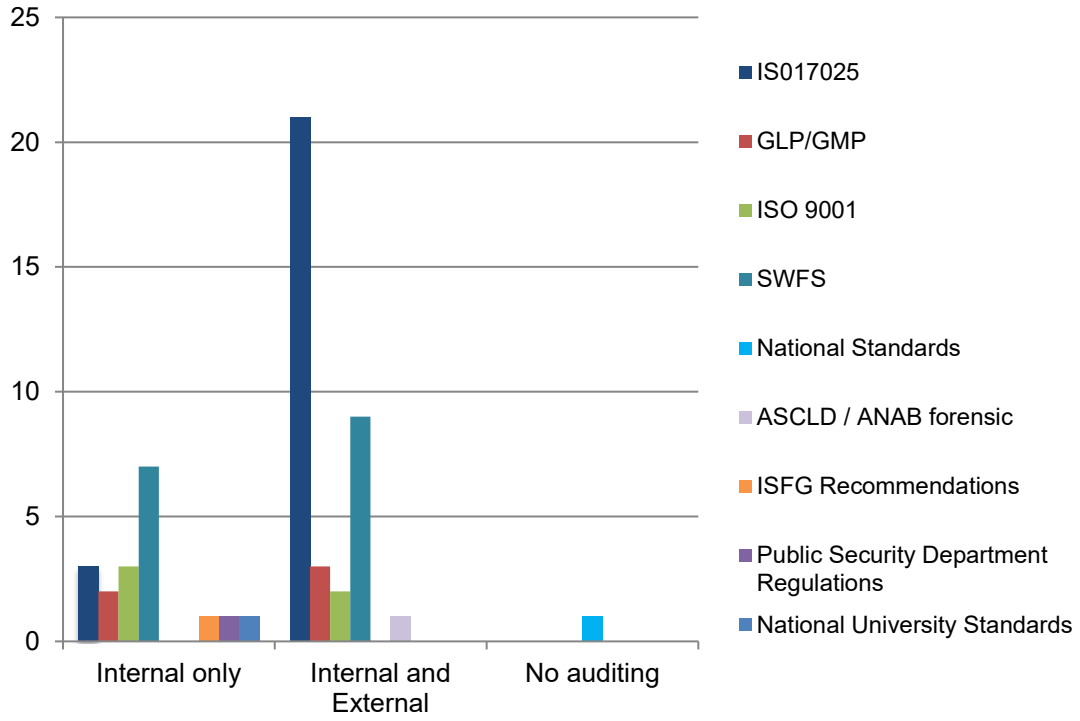


Figure 7. Quality Assurance standards and types of audit used by laboratories.

Geographically, 75% of European (9 labs) and North American labs (6 labs) reported both internal and external auditing, with Africa only slightly less at 71% (5 labs) (figure 8). Asia and Oceana reported 60% (3 labs) and 50% (3 labs) with external audit respectively, while no externally audited labs based in Central and South America and the Caribbean responded to the survey.

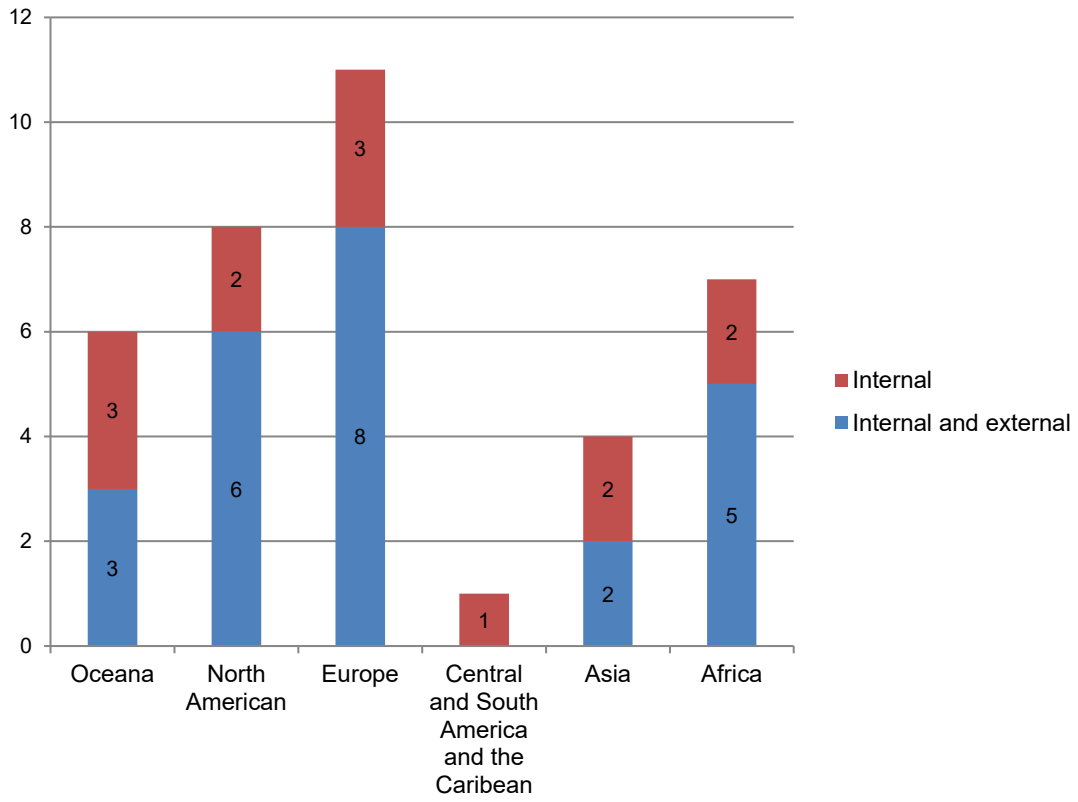


Figure 8. Geographic distribution by CITES region of laboratories undergoing internal and/or external auditing

Of all the labs offering forensic services, 43 (68%) intend to improve their QA over the next three years (Figure 9). Of the 63 labs stating they are able to conduct forensic analysis 32 labs (51%) stated that they have conducted forensic work on behalf of another country. Of these, just over half (56%, 18 labs) undergo both internal and external auditing, 19% (6 labs) perform just internal auditing, and 25% (8 labs) have no QA and/or no auditing (Figure 10).

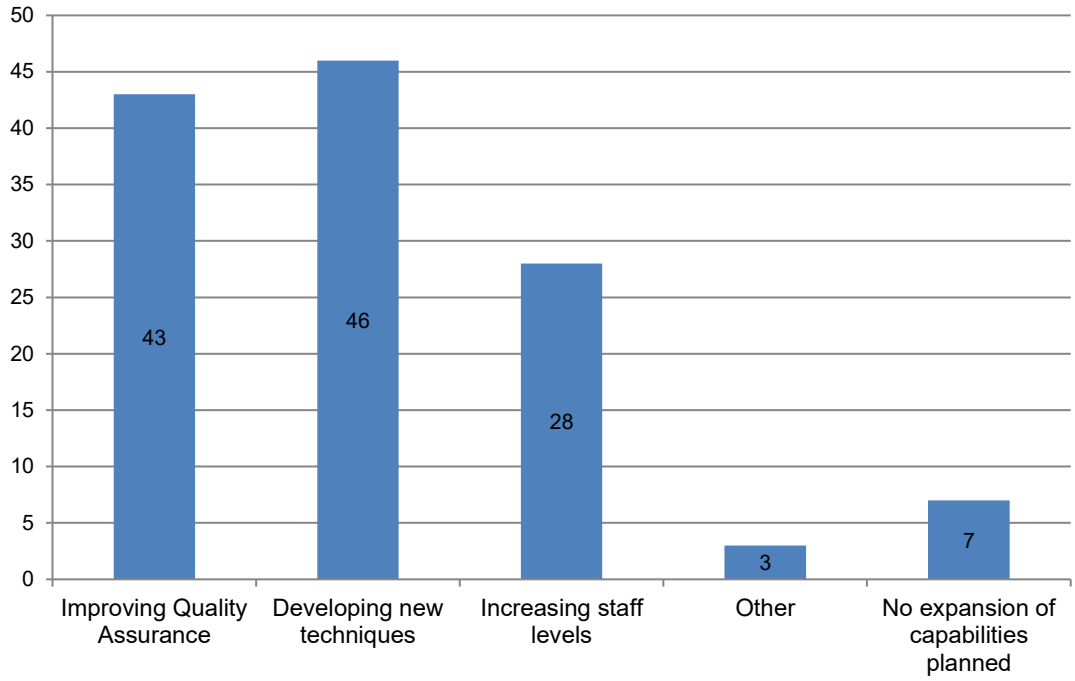


Figure 9. Intended capacity development across all laboratories over the next 3 years

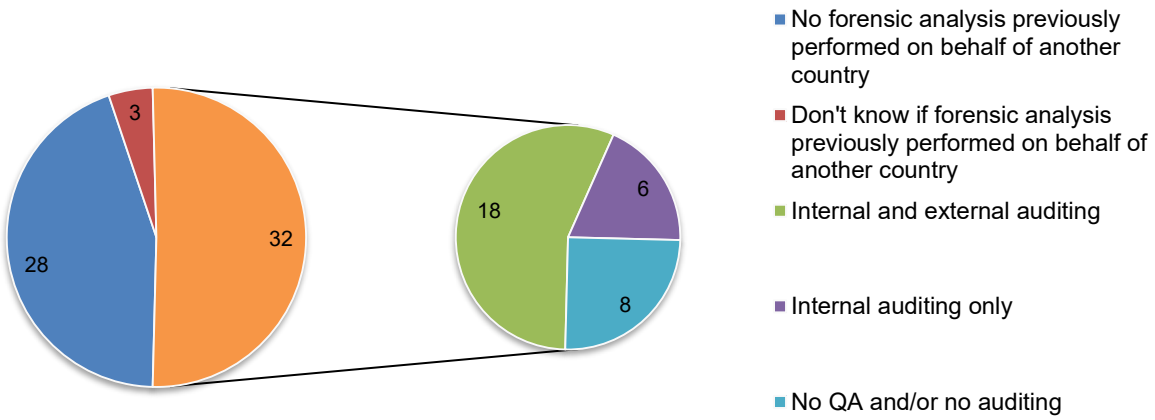


Figure 10. Levels of auditing of laboratories stating they had provided forensic services in the past

Wildlife forensic capacity for priority taxonomic groups

Elephant ivory

On the specific issue of elephant ivory identification, a total of 32 laboratories (51%) stated that they undertook forensic analysis of ivory samples. Some labs use multiple techniques, however across the labs, 25 perform DNA analysis, 16 use a morphological approach, 3 use stable isotopes, 2 use radiocarbon dating and 1 uses electron microscopy.

In total, 27 of the 32 labs (84%) operate under externally audited quality assurance schemes.

Rhinoceros horn

A total of 32 labs (51%) stated that they undertook forensic analysis of rhinoceros horn samples, the same number of laboratories as for elephant ivory. There was a slight reduction in the number able to conduct a morphological approach (n=12), compared to ivory, however, the numbers for all other techniques undertaken on rhinoceros horn mirrored that of ivory.

In total, 27 of the 32 labs (84%) operate under externally audited quality assurance schemes.

Pangolin

Only 20 laboratories reported conducting forensic analysis on pangolin. Of these, 16 use DNA analysis, seven use a morphological approach, one uses stable isotopes and one uses electron microscopy.

In total, 16 of the 20 labs (80%) operate under externally audited quality assurance schemes.

Summary

The analytical capacities for ivory and rhinoceros horn are very similar with 27 labs reportedly operating forensic testing under external audited quality systems for these species groups. This is a significant increase from the previous 2015 survey, which identified just six labs meeting these criteria, indicating a significant effort to improve capacity in this area. Pangolin was added as an additional question, due to the increased global scale of the illegal market for pangolin specimens. Fewer labs undertook forensic work on pangolin, however this may simply reflect the relatively recent emergence of this species group as a significant issue within the illegal trade in wildlife.

Part 6. Establishing an electronic directory of laboratories

Criteria and process for the inclusion in the electronic directory

Criteria
As mentioned earlier in this document, laboratories wishing to be listed in the CITES electronic directory need to meet a set of criteria which include their ability to conduct quality-assured forensic analysis.

These criteria are as follows:

1. **The laboratory must carry out forensic casework;**
2. **The laboratory must operate in accordance with a Quality Management System;**
3. **The laboratory must have passed an external audit of its Quality Management System, conducted by a competent third party, within the past two years;**
4. **The laboratory must be able and willing to carry out wildlife forensic analyses upon request from other countries;**
5. **The laboratory must explicitly request to be included in the directory.**

To be considered for inclusion in the directory, laboratory questionnaire responses needed to indicate conformance to these criteria. These criteria are available on the CITES webpage on *Wildlife Forensics* to enable any existing or new laboratory not included in the electronic directory to determine if it meets the specified criteria, before requesting inclusion.

It should be stressed that these criteria have been formulated specifically to allow CITES to confidently recommend a laboratory as an international wildlife forensic service provider. The results of the survey should not be taken to imply that laboratories which do not meet the criteria are not conducting good quality forensic casework. Nor should it be concluded that they should not be providing services at a national, or regional level. However, in the absence of documentary evidence that a laboratory is following a quality management system designed for forensic casework, it is not possible for CITES to formally recommend the use of such laboratory services.

Verification
Before listing, documentary evidence that the above criteria are met was requested from each laboratory. The information provided was evaluated by a UNODC wildlife forensic expert and by an independent panel of experts drawn from the Technical Working Group of the Society for Wildlife Forensic Science. Laboratories that were found to have successfully demonstrated conformity with the criteria were recommended for inclusion in the electronic directory and informed accordingly.

In the event that a request for inclusion in the electronic directory was not approved, feedback was be provided to the laboratory explaining why it could not be included at this stage and what needs to be addressed in order to qualify for inclusion in future.

Every laboratory included in the directory will be required to undergo re-verification every two years to ensure that they still meet the criteria.

Results of the present survey for inclusion in the electronic directory

Based on the answers provided by the respondents, 23 laboratories met the first three criteria. Of these only 17 were willing, should they have met all criteria, to be listed in the directory (Figure 11 – green shading).

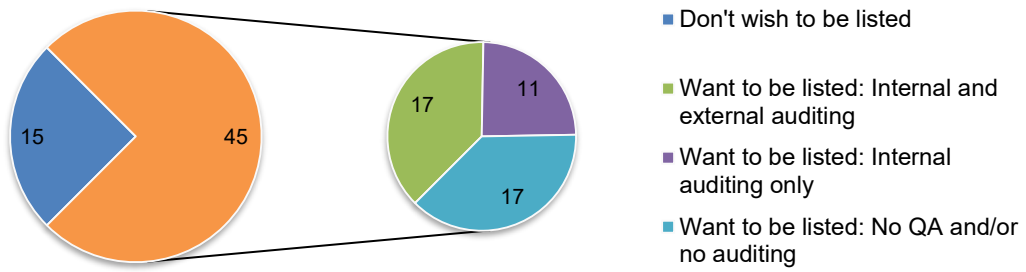


Figure 11. Audit status of laboratories that indicated a desire to be listed in an electronic directory.

Of those not meeting the first three criteria but wishing to offer international services, eleven laboratories conformed to the first two criteria, but did not have external auditing (Figure 11 – purple shading). Of the remaining seventeen, four were laboratories which claimed to conform to some form of QA, but did not declare what standard they adhered to, or did not adhere to a recognised QA standard, with the remaining thirteen reporting that no quality management system is in place. Feedback will be provided to each of the laboratories not meeting the required criteria and the opportunity to reapply for inclusion, once they do meet the criteria, will be emphasized.

It should also be noted that an additional nine laboratories, which currently only perform research work, responded that they are striving to provide wildlife forensic services in the future.

Based on the survey results, six laboratories in Europe, four laboratories in Africa, three laboratories in North America, two in Oceana, and two laboratories in Asia declared themselves able and willing to be listed in the electronic directory (Figure 12). Only the CITES region of Central and South America and the Caribbean has no laboratories claiming eligibility to be listed. One laboratory in Africa, two in Europe and three in North America are eligible for listing in the directory but do not wish to be included.

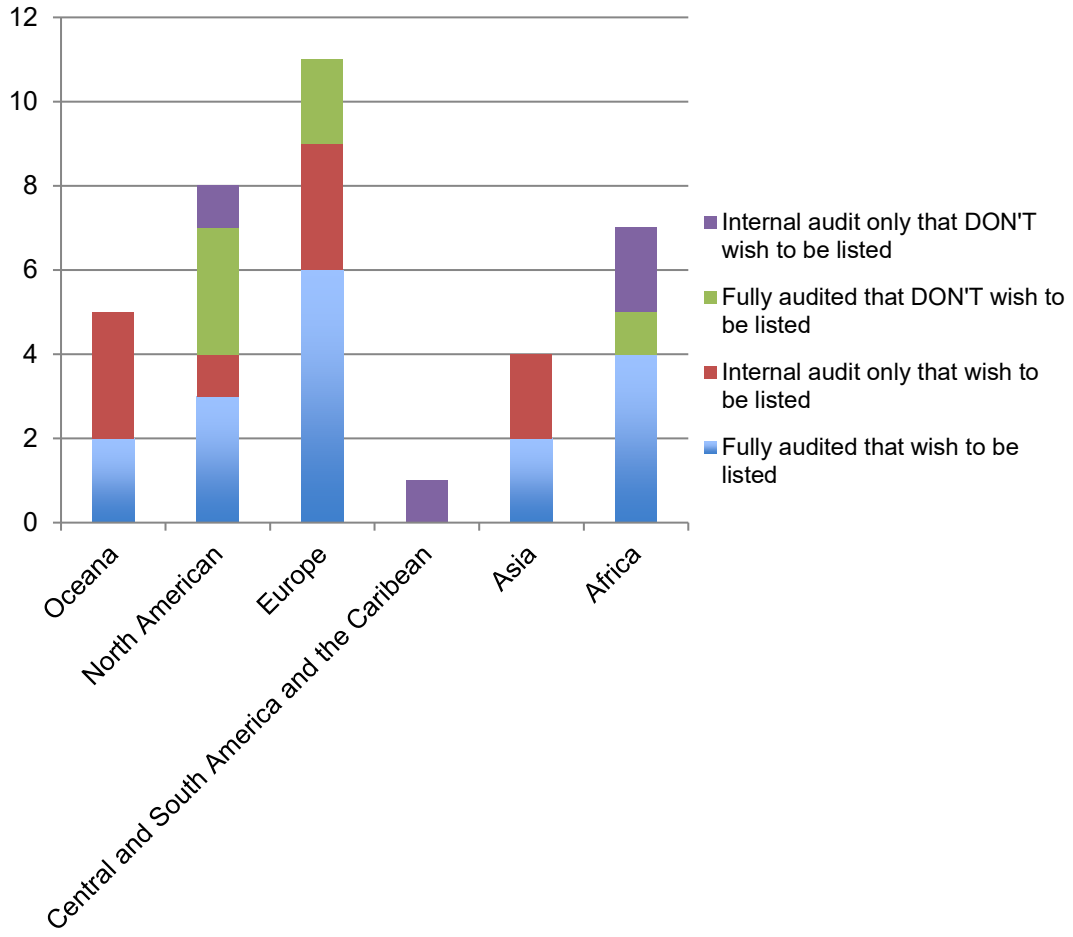


Figure 12. Distribution of laboratories indicating a desire to be listed in an electronic directory of laboratories willing and able to provide forensic services to other countries upon request

Results of independent assessment for directory listing

The 17 laboratories that were willing to offer international wildlife forensic services and that claimed to conform to the five eligibility criteria for listing on the CITES directory were invited to submit evidence of conformance for evaluation by a UNODC wildlife forensic expert and by an independent panel of scientists drawn from the Technical Working Group of the Society for Wildlife Forensic Science. Nine laboratories opted to submit evidence for consideration and all nine of these were found to fulfill all criteria and have therefore been approved for listing. Details of these nine laboratories are provide below.

Directory of laboratories eligible and willing to be included in an electronic directory of wildlife forensic providers

The below table lists all of the laboratories fulfilling all criteria necessary to be listed in an electronic directory of forensic providers able and willing to carry out wildlife forensic analyses upon request from other countries. Each of these laboratories (i) carry out forensic casework; (ii) operate in accordance with a QMS; (iii) are audited internally and externally by a competent third party (and have provided confirmatory evidence of this); (iv) are able and willing to carry out wildlife forensic analyses upon request from other countries; (v) have explicitly requested to be included in the directory.

Laboratory name	Country, CITES region	QA standard	Sample types analysed	Contact name / email
Australian Centre for Wildlife Genomics, Sydney	Australia, Oceana	ISO17025	Terrestrial animal, Aquatic animal, Rhinoceros horn, Elephant ivory	Greta Frankham Greta.Frankham@austmus.gov.au
Criminalistic Service, Guardia Civil	Spain, Europe	ISO17025	Terrestrial animal, Aquatic animal, Plant, Microorganisms	David Parra Pecharromán crimquimica@guardiacivil.org
Genomia s.r.o.	Czech Republic, Europe	ISO17025	Terrestrial animal	Markéta Dajbychová marketa.dajbychova@genomia.cz
Institute of Forensic Medicine, Zurich	Switzerland, Europe	ISO17025	Terrestrial animal, Aquatic animal, Elephant ivory	Morf Nadja Nadja.Morf@irm.uzh.ch
James Hutton Institute	United Kingdom, Europe	ISO 9001	Plant, Diatoms, Soil	Lorna Dawson Lorna.Dawson@hutton.ac.uk
Netherlands Forensic Institute (NFI)	The Netherlands, Europe	ISO17025	Terrestrial & Aquatic animal, Plant, Timber, Rhino horn, Elephant ivory, Pangolin	Irene Kuiper i.kuiper@nfi.minvenj.nl
Science and Advice for Scottish Agriculture (SASA)	United Kingdom, Europe	ISO17025	Terrestrial animal, Aquatic animal, Rhinoceros horn, Elephant ivory	Lucy Webster Lucy.Webster@sasa.gsi.gov.uk
US Fish and Wildlife Service, National Forensic Laboratory	United States of America, North America	ISO17025	Terrestrial animal, Aquatic animal, Timber, Rhino horn, Elephant ivory, Pangolin	Ed Espinoza ed_espinoza@fws.gov
University of California, Davis	United States of America, North America	ISO17025	Terrestrial animal, Rhinoceros horn	Christina D Lindquist cdlindquist@ucdavis.edu

7. Discussion and Conclusions

Number of active wildlife forensic laboratories

The primary goal of this work was to identify laboratories around the world that are able to provide wildlife forensics services upon request and that are willing to be listed in an electronic directory. In addition, the survey results have enabled the 2016 confidential records of laboratory capacity around the world to be updated and expanded.

Invitation to participate in the present survey was based on the responses received during the 2016 survey , in which all CITES Parties were invited to take part. While many of the laboratories asked to complete the present survey did not respond (58% response rate), it is considered likely that no response indicates a lack of interest in being listed in the electronic directory. It is expected that, upon publication of the directory, a number of additional laboratories might request inclusion if they did not reply to the survey or did not receive an invitation.

The questionnaire was designed to distinguish labs undertaking forensic casework from those conducting research to support the development of new techniques applicable to forensic analysis. However, as with the previous survey it was clear from a number of the responses that this distinction is not necessarily understood by some of the laboratories. This may be due to the language used in the survey, or because some research labs do not fully appreciate the distinction between research and forensic practice. The latter explanation remains a concern within the wildlife forensic community (see subsequent sections) and is an area that will be informed by the detailed results of this survey.

Regardless of the total number of responses, an estimate of the number of active wildlife forensic laboratories should take into account whether or not the lab operates a Quality Management System, which is fundamental to forensic practice. Of the 63 labs stating that they conduct forensic work, only 66% stated they conformed to a quality assurance standard and of these only 63% also state they undergo internal and external auditing. This would indicate that the maximum number of forensic casework labs that may be operating to a minimum level of quality and are subject to an external audit of their testing procedures is 23. Of these 23 laboratories, 17 indicated a desire to be listed in an electronic directory of wildlife forensic service providers. However, when evidence of external auditing of their QA standards was requested, only nine of the 17 laboratories provided suitable evidence. These remaining nine laboratories are consequently listed in the final directory.

This analysis shows that a relatively small number of labs are available that meet the criteria for inclusion in the directory. However, it should be noted that standardization and implementation of formal QA procedures in wildlife forensic science is in its relative infancy and many laboratories are in the process of addressing this issue, as indicated by ‘future plans’ provided by respondents. It is anticipated that the number of labs meeting the required criteria to be listed will grow steadily over the next five years.

Future listing of laboratories not included in the current directory

A number of laboratories stated a desire to be listed in the directory but could not be listed at this time. Furthermore, there are likely to be a number of labs that did not respond to the survey or were inadvertently omitted from the initial survey distribution. In both cases, it is important that the opportunity for future listing is made available and that steps to achieve listing are made clear.

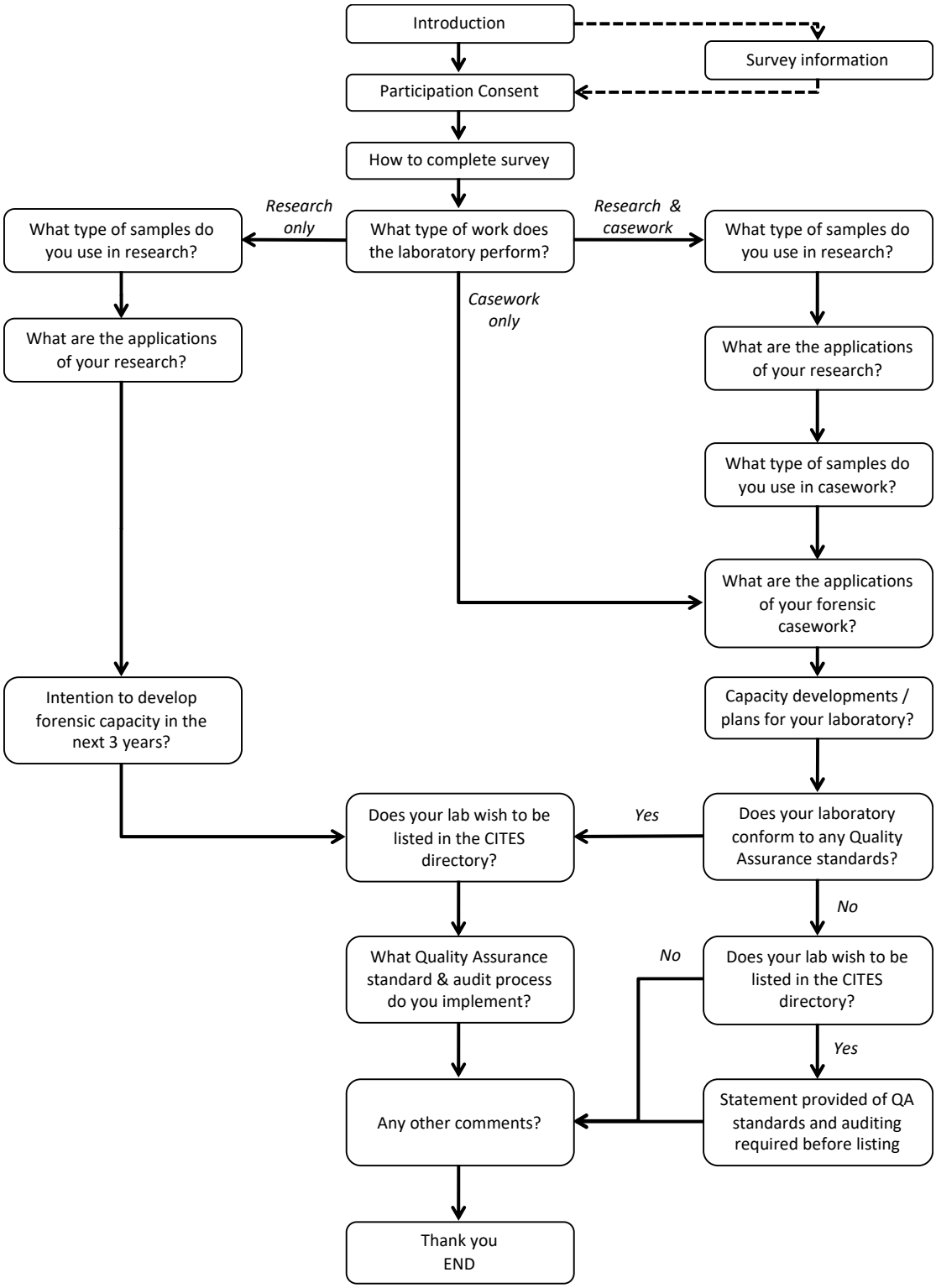
Based on this survey, the primary reasons for not achieving listing are either that labs do not follow a recognized Quality Assurance standard or that they are not able to demonstrate a successful independent external audit of their laboratory's Quality Management System. Laboratories falling into these categories, who wish to be listed, are advised to first develop and follow an appropriate quality management system, based on recognised standards, and second, to undertake formal accreditation or, as a minimum, to pass an independent laboratory assessment. For advice on how to address these issues, laboratories are recommended to contact the Society for Wildlife Forensic Science (SWFS).

Laboratories that meet these criteria in future and wish to be considered for listing should contact the CITES Secretariat in the first instance (cites.info-cites@un.org). Laboratories will be asked to provide appropriate documentary evidence for review.

It is recognized that the criteria relating to quality assurance represent a significant bar to inclusion in the directory for many laboratories. Laboratories whose primary focus is research may view the steps required for laboratory listing to be too onerous, or to require too much financial investment, to be worth taking. Consequently, specialist analytical services offered by laboratories that are not listed in the CITES directory, may be more difficult to access. As stated above (Section 6), lack of inclusion in the directory should not be interpreted as a lack of ability to conduct forensic casework. However, from the perspective of the mainstream forensic science community, these criteria represent a recognized minimum set of quality requirements that should be in place in order to demonstrate to a courtroom that forensic evidence has been produced in a robust and reliable manner.

Appendix – Survey map

Flow diagram of the survey questionnaire highlighting the individual steps followed by participants based on their responses.



TENTATIVE BUDGET AND SOURCE OF FUNDING
FOR THE IMPLEMENTATION OF DRAFT RESOLUTIONS OR DECISIONS

According to Resolution Conf. 4.6 (Rev. CoP16) on *Submission of draft resolutions, draft decisions and other documents for meetings of the Conference of the Parties*, the Conference of the Parties decided that any draft resolutions or decisions submitted for consideration at a meeting of the Conference of the Parties that have budgetary and workload implications for the Secretariat or permanent committees must contain or be accompanied by a budget for the work involved and an indication of the source of funding. The Secretariat proposes the following tentative budget and source of funding.

Draft decision 18.AA

Draft decision 18.AA does not have any budgetary and workload implications for the Secretariat or permanent committees.

Draft decisions 18.BB

Implementation of draft decision 18.BB would be subject to the provision of external funds, and would therefore not require the use of core funds. Activities currently planned under the ICCWC Strategic Programme and led by UNODC, is expected to amount to approximately USD 150 000.00 per country per year. This amount might vary, depending on the need for the placing of mentors, and the duration of such placing.

Draft decision 18.CC

Draft decision 18.CC will be implemented through external funds secured under the ICCWC Strategic Programme 2016-2020, and would therefore not require the use of core funds. Organizing the Task Force and supervision of the work would require some time from the Secretariat, but should be a core part of the Secretariat's work and accommodated within its regular work programme.

Proposed to amend Resolution Conf. 11.3 (Rev. CoP17) on *Compliance and enforcement*

Implementing the work anticipated by the sub-paragraph d), proposed to be added to paragraph 8 under *Regarding enforcement activities of the Secretariat* in Resolution Conf. 11.3 (Rev. CoP17) on *Compliance and enforcement*, would require some time from the Secretariat, but should be a core part of the Secretariat's work and accommodated within its regular work programme.