

SUMMARY OF THE CITES SCIENTIFIC COMMITTEES: 18-27 JULY 2017

The twenty-ninth meeting of the Animals Committee (AC29) of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) convened from 18-22 July 2017 in Geneva, Switzerland. AC29 was followed in Geneva by a Joint Meeting of the AC and Plants Committee (PC) on 22 July, and the twenty-third meeting of the Plants Committee (PC23) from 22-27 July.

The CITES scientific committees last met in tandem in 2014, with each convening an independent meeting in 2015 and then participating in the seventeenth Conference of the Parties (CoP17) in 2016 by providing essential advice to the Convention’s decision-making body. The attendance of more than 500 participants at AC29 and PC23 over the course of ten days signaled parties’ and observers’ strong interest in the deliberations of the scientific committees.

During AC29, participants piloted a new process for a review of trade in animal specimens reported as produced in captivity. They also adopted recommendations on, among other things, sharks, snakes, freshwater stingrays, sturgeons and paddlefish, and nomenclature.

During their Joint Meeting, the AC and PC considered guidance on non-detriment findings, collaboration with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, and annotations, and adopted recommendations on, among other things, terms of reference for a planned study on specimens produced from synthetic or cultured DNA.

At PC23, participants adopted recommendations on, *inter alia*: rosewood timber species; timber identification; Malagasy ebonies, palisanders and rosewoods; and cooperation with the Global Strategy for Plant Conservation of the Convention on Biological Diversity. They discussed agarwood-producing taxa, African cherry, and annotations for Appendix-II orchids.

Both AC29 and PC23 adopted recommendations, for animals and plants respectively, on the review of significant trade in specimens of Appendix-II species and the periodic review of species included in the CITES appendices. AC and PC participants also established numerous intersessional working groups, including on eels, precious corals, definition of the terms “appropriate and acceptable destinations” and “artificially propagated,” terms of reference of the scientific committees, Appendix-III listings, and country-wide significant trade reviews.

The Committees completed their work with collegial collaboration and while some of the more contentious issues provoked lengthy and complex debates, the AC and PC delegates

left Geneva having made substantial progress, but with more work to do to ensure that CITES’ scientific processes continue to provide a strong foundation for the Convention.

A BRIEF HISTORY OF CITES

CITES was established as a response to growing concerns that over-exploitation of wildlife through international trade was contributing to the rapid decline of many species of plants and animals around the world. The Convention was signed by representatives from 80 countries in Washington, DC, on 3 March 1973, and entered into force on 1 July 1975. There are currently 183 parties to the Convention.

The aim of CITES is to ensure that international trade of wild animal and plant species does not threaten their survival. CITES parties regulate wildlife trade through controls and regulations on species listed in three appendices. Appendix I lists endangered species threatened by international trade, permitting such trade only in exceptional circumstances. Appendix-II species are those that may become endangered if their trade is not regulated, thus require controls aimed at preventing unsustainable use, maintaining ecosystems, and preventing species from entering Appendix I. Appendix-III species are those subject to domestic regulation by a party requesting the cooperation of other parties to control international trade in that species.

In order to list a species in Appendix I or II, a party needs to submit a proposal for approval by the Conference of the Parties (CoP), supported by scientific and biological data on population and trade trends. The proposal must be adopted by a two-thirds

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majority of parties present and voting. As the trade impact on a species increases or decreases, the CoP decides whether or not the species should be transferred or removed from the appendices.

There are approximately 5,600 fauna species and 30,000 flora species protected under the three CITES appendices. Parties regulate international trade in CITES species through a system of permits and certificates that are required before specimens listed in its appendices are imported, exported, or introduced from the sea. Each party is required to adopt national legislation and to designate two national authorities, namely a Management Authority responsible for issuing permits and certificates, and a Scientific Authority responsible for providing scientific advice. These two national authorities also assist with CITES enforcement through cooperation with customs, police, and other appropriate agencies. Parties maintain trade records that are forwarded annually to the CITES Secretariat, thus enabling the compilation of statistical information on the global volume of international trade in appendix-listed species.

The operational bodies of CITES are the Standing Committee (SC) and two scientific committees: the Plants Committee (PC) and the Animals Committee (AC).

CONFERENCES OF THE PARTIES: The first CITES CoP was held in Bern, Switzerland, in November 1976, and subsequent CoPs have been held every two to three years. The CoP meets to, *inter alia*: review progress in the conservation of species included in the appendices; discuss and adopt proposals to amend the lists of species in Appendices I and II; consider recommendations and proposals from parties, the Secretariat, the SC, and the scientific committees; and recommend measures to improve the effectiveness of the Convention and the functioning of the Secretariat. The CoP also periodically reviews the list of resolutions and decisions, as well as the species listed in its appendices.

CITES CoP13: CoP13 met in Bangkok, Thailand, from 2-14 October 2004. Delegates addressed a range of topics, including 50 proposals to amend the CITES appendices. CoP13 approved the listing of ramin, agarwood-producing taxa, the great white shark, and the humphead wrasse in Appendix II, as well as the uplisting of the Irrawaddy dolphin from Appendix II to I. Regarding the African elephant, Namibia saw its request for an annual ivory quota rejected, but was allowed to proceed with a strictly controlled sale of traditional ivory carvings. Delegates also agreed on an action plan to curtail unregulated domestic ivory markets. Namibia and South Africa were each allowed an annual quota of five black rhinos for trophy hunting, and Swaziland was allowed to open up strictly controlled hunting of white rhinos. Other decisions focused on synergies with the Food and Agriculture Organization of the UN (FAO) and the Convention on Biological Diversity (CBD), while enforcement issues also received considerable attention.

CITES CoP14: CoP14 met in The Hague, the Netherlands, from 3-15 June 2007. Delegates addressed a range of topics including: the CITES Strategic Vision 2008-2013; a guide on compliance with the Convention; management of annual export quotas; and species trade and conservation issues, including Asian big cats, sharks, and sturgeons. Delegates agreed that no cetacean species should be subject to periodic review while the International Whaling Commission (IWC) moratorium is in place. CoP14 approved the listing of: slender-horned and Cuvier's gazelles and slow loris on Appendix I; Brazil wood, sawfish, and eel on Appendix II; and to amend the annotation on African elephants to allow a one-off sale of ivory from Botswana, Namibia, South Africa, and Zimbabwe with a nine-year resting period for further ivory trade. The media spotlight was on

negotiations on the future of ivory trade and African elephant conservation, with many highlighting the consensus by African range states as a major achievement of this meeting.

CITES CoP15: CoP15 met in Doha, Qatar, from 13-25 March 2010. The meeting considered 68 agenda items and 42 proposals to amend the CITES appendices. CoP15 adopted resolutions and decisions directed to parties, the Secretariat, and Convention bodies on a wide range of topics including: electronic permitting; Asian big cats; rhinoceroses; bigleaf mahogany; and Madagascar plant species. Regarding species listings, CoP15 decided to list, among others: Kaiser's spotted newt; five species of tree frogs; the unicorn beetle; rosewood; holy wood; and several Madagascar plant species.

CITES CoP16: CoP16 met in Bangkok, Thailand, from 3-14 March 2013. The meeting adopted 55 new listing proposals, including on sharks, manta rays, turtles, and timber. Nine proposals were rejected (Caspian snowcock, Tibetan snowcock, saltwater crocodile, Siamese crocodile, South American freshwater stingray, Rosette river stingray, blood pheasant, and two species of freshwater turtles). Three proposals were withdrawn: Southern white rhino and two African elephants. Three were not considered: Indochinese box turtle; Ryukyu black-breasted leaf turtle; and Annam leaf turtle. The CoP also adopted strong enforcement measures to address wildlife crime.

CITES CoP17: CoP17 convened from 24 September through 4 October 2016 in Johannesburg, South Africa. CoP17 was the largest CITES meeting to date, with more than 3,500 participants representing 152 governments, international organizations, non-governmental organizations and media. Delegates considered 90 agenda items and 62 species-listing proposals submitted by 64 countries. Resolutions and decisions were adopted on, *inter alia*: actions to combat wildlife trafficking; demand reduction strategies to combat illegal trade in CITES-listed species; provisions on international trade in hunting trophies of species listed in Appendix I or II aimed at enabling better controls of the sustainable and legal origin of those specimens; illegal trade in cheetahs; elephants and trade in ivory; agarwood-producing taxa; and ebonies.

AC29 REPORT

On Tuesday, 18 July, CITES Secretary-General John Scanlon welcomed participants to the meeting, highlighting the "extraordinary and critical work" of the Animals and Plants Committees in bringing science to the CITES decision-making and implementation processes. He noted linkages with the UN 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs), and CITES' increasing use of new and emerging technologies. Foreshadowing the new CITES Strategic Vision, to be adopted in 2019, he said these are "exciting times for this remarkable instrument."

Hugh Robertson, AC representative for Oceania, on behalf of Fiji, presented Secretary-General Scanlon with a tabua, a ceremonial sperm whale tooth with significant cultural value, in recognition of the repatriation to Fiji of 146 tabua confiscated at the New Zealand border. Secretary-General Scanlon thanked Fiji's Prime Minister, Frank Bainimarama, and underscored that the tabua represents the linkages in CITES between culture and wildlife.

The AC welcomed Mathias Lörtscher (Switzerland) as its new Chair. Lörtscher highlighted several changes to the membership of the AC, as well as main issues on the AC29 agenda.

ADMINISTRATIVE MATTERS

The CITES Secretariat then called on AC members to declare conflicts of interest, particularly financial interests that might impair their impartiality and independence. No such declarations were made.

ADOPTION OF THE AGENDA: The AC adopted the agenda (AC29 Doc.1) without amendments, and the working programme (AC29 Doc.2) with one minor amendment. The Committee agreed to admit all observers, as listed in document AC29 Doc.4 (Rev.1).

RULES OF PROCEDURE: The Secretariat then introduced the Rules of Procedure (AC29 Doc.3.1). She noted that CoP17 had adopted interlinked decisions on revising the Rules of Procedure that would affect the AC, PC, and SC, and explained the Secretariat's plan to circulate revised rules to the SC for its next meeting, and subsequently prepare draft rules for the AC and PC for their meetings in 2018. The Europe representative highlighted the need to ensure that changes to procedures on electronic consultations would not compromise the transparency of the deliberations of the Committees. The Secretariat confirmed that draft revised rules would include language to specify that intersessional decision-making be restricted to urgent matters that require immediate resolution. The AC noted the document with these comments. The Secretariat said the AC would continue discussions in conjunction with the PC on the review of the terms of reference for the AC and PC (AC29 Doc.6/PC23 Doc.7) in their joint meeting on Saturday, 22 July.

COMPLIANCE AND ENFORCEMENT

REVIEW OF SIGNIFICANT TRADE IN SPECIMENS OF APPENDIX-II SPECIES: Overview of the RST: On Tuesday, 18 July, the Secretariat presented the overview of the Review of Significant Trade (RST) (AC29 Doc.13.1). She informed the AC that funding had been secured to create a user-friendly guide to the RST, a comprehensive training module on the RST, and an improved RST tracking and management database, noting the interim version of this system would be made available following AC29 (AC29 Inf.19). The AC welcomed progress made on the RST tracking and management database and noted the document.

Species selected for RST following CoP16 and CoP17: On Tuesday, 18 July, the Secretariat presented relevant documentation on species selected for RST following CoP16 (AC29 Doc.13.2) and CoP17 (AC29 Doc.13.3), noting that a revised, streamlined, and more transparent process for the selection of species for RST would be initiated at this meeting. The UN Environment Programme's World Conservation Monitoring Centre (UNEP-WCMC) presented and described: the methodologies for a report on species-country combinations selected for review by the AC following CoP16 (AC29 Doc.13.2 Annex 1); a summary output of trade in wild-sourced specimens (AC29 Doc.13.3 Annex 1 (Rev.1)); and an extended analysis (AC29 Doc.13.3 Annex 2 (Rev.1)), noting that the RST selection methodology now includes Appendix-I taxa subject to reservation.

Indonesia provided updates on four species for which the UNEP-WCMC report concluded that "action is needed," namely the Mekong snail-eating turtle (*Malayemys subtrijuga*), Malayan flat-shelled turtle (*Notochelys platynota*), Wallace's golden birdwing (*Ornithoptera croesus*), and Rothschild's birdwing (*Ornithoptera rothschildi*), requesting exclusion from RST for the former two species, and highlighting the potential for the sustainable harvest of captive-bred specimens of the latter two. Tanzania requested the lifting of trade suspensions for six of its species, and the Secretariat clarified the process for addressing

these suspensions, which involves reporting to the SC on actions taken on the recommendations set out when the suspensions were established.

Europe requested proportional data on exporter countries to better indicate which species-country combinations are the most significant, and cautioned against the AC being "overambitious" in selecting a large number of species for RST. Norway highlighted inconsistencies in the data for the distribution of species related to trade. Oceania suggested that average trade volumes for International Union for Conservation of Nature (IUCN) Red List species should be weighted differently based on their global threat status.

The AC established a working group on RST chaired by Europe representative Vin Fleming (UK) and North America representative Rosemarie Gnam (US). On Wednesday, 19 July, the working group met to consider the species-country combinations selected for RST. Participants reviewed the compiled information and provisional classifications provided by UNEP-WCMC (AC29 Doc.13.2 Annex 1), as well as additional information provided by the Secretariat, range states, parties, and experts on the 25 species-country combinations selected for RST following CoP16.

The working group agreed to the recommended categorizations for the majority of species-country combinations. African spurred tortoise (*Centrochelys sulcata*) from Benin and Togo was changed from "unknown status" to "less concern." Wallace's golden birdwing (*Ornithoptera croesus*) from Indonesia was changed from "action needed" to "less concern" and the species-country combination was referred to the working group on captive breeding, with a note from TRAFFIC on the need for non-detriment findings (NDFs) for ranched specimens. Rothschild's birdwing (*Ornithoptera rothschildi*) from Indonesia was changed from "unknown status" to "less concern" and this species-country combination also referred to the captive breeding working group. Several other species-country combinations were referred to the captive breeding working group on the basis of high levels of captive-bred and/or ranched trade, including the Egyptian spiny-tailed lizard (*Uromastix aegyptia*) from Jordan and Syria, and the African spurred tortoise from Benin, Ghana, Mali, Sudan, and Togo. The working group referred the Egyptian spiny-tailed lizard from Jordan to the SC due to reported illegal trade of wild specimens.

On the Malayan flat-shelled turtle (*Notochelys platynota*), Indonesia requested a change from "action is needed" to "less concern" for its population of the species, citing its conservative export quotas and robust management plans. The UK, supported by Hungary, the US, and IUCN, highlighted the lack of data on population sizes and densities as needed to inform an NDF, and supported UNEP-WCMC's "action is needed" recommendation. After further discussion, the working group, including Indonesia, agreed to the UNEP-WCMC recommendation.

The working group on RST also reviewed species-country combinations selected since CoP17 (AC29 Doc.13.3, Annexes 1 (Rev.1) and 2 (Rev.1)), identifying 19 species-country combinations of greatest concern for inclusion in Stage 2 of the RST process. They also referred Hermann's tortoise (*Testudo hermanni*) from the Former Yugoslav Republic of Macedonia to the captive breeding working group.

An informal drafting group was established to formulate recommendations directed to range states involved in the RST process as well as recommendations directed to the Secretariat and SC.

On Friday, 21 July, in plenary, the AC heard the proposed recommendations (AC29 Com.5). Indonesia said that the Mekong snail-eating turtle might be an introduced and possibly invasive

species in Indonesia, and therefore requested changes to the recommendations for short-term actions as part of the review process. Peter Paul van Dijk, AC Nomenclature Specialist, noted that this species was recorded in Java, Indonesia, as early as the mid-nineteenth century. Europe, North America, and Humane Society International expressed various reservations to Indonesia's suggested changes. The AC agreed to a modification of the amendment proposed by Indonesia. Australia questioned who would determine the non-native status of the species, and AC Chair Lörtscher said the responsibility lay with the CITES Scientific Authority in Indonesia. Van Dijk requested that any changes to the status of the species be communicated to the AC, SC, and Secretariat.

In additional amendments to the recommendations, parties agreed to specify "field studies" in parentheses with regard to range states retained in the review process undertaking science-based studies on the status of the relevant species. IUCN drew attention to reports of wild-caught export of the Cameroon two-horned mountain chameleon (*Trioceros montium*) from Guinea, which is not a range state, and suggested the SC address the matter.

The AC agreed to the recommendations with minor amendments.

Outcome: The AC recommends (AC29 Com.5) that the following species-country combinations be categorized as "action is needed," and included in the RST:

- Festive parrot (*Amazona festiva*) from Guyana;
- Cameroon two-horned mountain chameleon (*Trioceros montium*) from Cameroon;
- Ornate monitor (*Varanus ornatus*) from Togo;
- Mekong snail-eating turtle (*Malayemys subtrijuga*) from Indonesia;
- Malayan flat-shelled turtle (*Notochelys platynota*) from Indonesia;
- Yellow-footed tortoise (*Chelonoidis denticulatus*) from Guyana and Suriname; and
- Spur-thighed tortoise (*Testudo graeca*) from Jordan.

The AC recommends that the following species-country combinations be categorized as "less concern," and excluded from RST:

- Egyptian spiny-tailed lizard (*Uromastix aegyptia*) from Jordan and Syria;
- King cobra (*Ophiophagus hannah*) from Indonesia and Malaysia;
- Mekong snail-eating turtle (*Malayemys subtrijuga*) from Lao People's Democratic Republic (Lao PDR);
- Malayan snail-eating turtle (*Malayemys macrocephala*) from Malaysia;
- African spurred tortoise (*Centrochelys sulcata*) from Benin, Ghana, Guinea, Mali, Sudan, and Togo;
- Spur-thighed tortoise (*Testudo graeca*) from Syria;
- Wallace's golden birdwing (*Ornithoptera croesus*) from Indonesia;
- Rothschild's birdwing (*Ornithoptera rothschildi*) from Indonesia;
- Northern medicinal leech (*Hirudo medicinalis*) from Turkey; and
- Leech (*Hirudo verbana*) from Turkey.

The AC also directed a number of time-bound, feasible, measurable, proportionate, and transparent recommendations to range states retained in the review process in the annex to AC29 Com.5.

In addition, the AC recommends the following species-country combinations for inclusion in Stage 2 of RST:

- Black crowned-crane (*Balearica pavonina*) from Mali;
- Southern mealy parrot (*Amazona farinosa*) from Guyana and Suriname;
- Blue-and-gold macaw (*Ara ararauna*) from Guyana and Suriname;
- Red-and-green macaw (*Ara chloropterus*) from Guyana and Suriname;
- Red-fronted parrot (*Poicephalus gulielmi*) from Mali and the Democratic Republic of the Congo;
- Saharan spiny-tailed lizard (*Uromastix geyri*) from Mali, Ghana, Benin, and Togo;
- Minute leaf chameleon (*Brookesia minima*) from Madagascar;
- Antongil leaf chameleon (*Brookesia peyrierasi*) from Madagascar;
- South Asian box turtle (*Cuora amboinensis*) from Indonesia; and
- Silver eel (*Anguilla anguilla*) from Morocco, Tunisia, and Algeria.

The AC further recommends that the Secretariat, when contacting the range states for African spurred tortoise, remind them that this species has a zero annual export quota for specimens removed from the wild and traded for primarily commercial purposes. Observing that illegal trade in Egyptian spiny-tailed lizard from Jordan was reported, and that re-exports by the United Arab Emirates of live, captive-bred specimens of Egyptian spiny-tailed lizard from Syria appeared to be substantially higher than reported imports to the country, the AC recommends these issues be referred to the Secretariat and SC.

CAPTIVE-BRED AND RANCHED SPECIMENS: On Tuesday, July 18, the Secretariat introduced the documents on captive-bred and ranched specimens, with a focus on a series of source codes for non-wild specimens that designate the origins of the animals, the status under the appendices, and/or the type of captivity involved, of: captive-bred (C); Appendix I captive-bred in a registered breeding facility (D); captive-born (F); and ranched (R). The documents outlined a review of trade in animal specimens reported as produced in captivity with source codes C, D, F, and R (AC29 Doc.14.1) and NDFs for specimens with source codes W (wild), R, and F (AC29 Doc.14.2). The AC established a working group to consider both matters.

Review of trade in animal specimens reported as produced in captivity: AC Chair Lörtscher highlighted the wide interest in this "new, important process." The Secretariat recalled the history of source codes for non-wild specimens, and noted that as reported trade in specimens of non-wild origin has increased greatly, so have concerns about the use of source codes and the fulfillment of obligations by parties in such trade. Outlining the six-stage process for addressing compliance concerns, beginning with the identification of cases where the AC suspects the Convention is not being properly applied, the Secretariat highlighted three main strategies to select cases for review: analysis of trade data by consultants; identification of cases through the RST; and cases referred by parties to the Secretariat. He underscored the untested nature of the process, noting that the AC would be asked to report suggestions for improvement and harmonization with the RST, and urged the AC to have "modest expectations" for the first round of reviews.

UNEP-WCMC presented its initial work to assist the AC in selecting species for review, explaining the application of six criteria for identifying species of potential concern, such as increases in trade, changes in source codes, or inconsistencies in reporting. The assessment led to the identification of 227 species-country combinations that met at least one of the six criteria (AC29 Doc.14.1 Annex).

AC Chair Lörtscher recommended a series of considerations for the working group, including ensuring that selected species-country combinations provide a representative sample across the six criteria for selection, multiple species groups, and all four source codes. Oceania requested the consideration of multiple countries and regions when selecting examples, and noted the importance of harmonizing the captive-bred review and the RST. Europe recalled that cases could be suggested for review by the working group on RST. Africa highlighted the need to detect species that are kept in captivity but harvested from the wild.

The US and Humane Society International underscored the importance of the review to the implementation of the Convention. Mexico offered suggestions for altering the organization of information on species, and UNEP-WCMC agreed it could amend the database as needed by the AC. Following a question from TRAFFIC, the Secretariat clarified that ranched species are included in both reviews, but with different questions of concern, noting that RST focuses on NDFs while the review of captive-bred and ranched specimens addresses the possible misuse of source codes.

Non-detriment findings for specimens with source code W, R and F: Also in plenary, the Secretariat noted the AC had been asked by CoP17 to initiate a report comparing specimens from the wild with W, R, and F codes, and to convene an intersessional working group on the matter.

Mexico supported the proposals in AC29 Doc.14.2, noting the need for an NDF regime for W, R, and F coded specimens. Canada supported the work on NDF guidance in different production systems.

On Thursday, 20 July, the working group on both matters under captive-bred and ranched specimens, chaired by AC Chair Lörtscher met throughout the day.

In the working group Chair Lörtscher reminded participants to propose only species-country combinations involving serious conservation concerns. Using the referrals from the RST working group as a guide, along with the UNEP-WCMC tables (AC29 Doc.14.1 Annex), the working group created a shortlist of candidates for review. Participants justified their proposals based on: trade levels and trends; source code discrepancies; observed and suspected problems with breeding facilities or breeding biology; past AC and SC concerns; representativeness across taxa; and conservation status. The working group also considered the merits of including cases involving trade with non-parties, captive breeding in non-range states, and countries lacking CITES administration.

Discussions were held on the selection process for the review, as well as on the content. Several parties underscored that while observers could make suggestions, the support of a party was needed for species to be added to the review list. On the scope of potential candidates, the Secretariat clarified that the UNEP-WCMC report provided a starting point for discussions, but that parties were not limited to that list. While acknowledging that adding species for consideration during the meeting did not leave much time for parties to examine species and trade data, the Secretariat called for “flexibility” in the case of emerging conservation situations. Humane Society International suggested that such cases be flagged when they arise, so UNEP-WCMC can modify its filters for future iterations of its review list.

Observers queried whether species that had been referred by the RST but not chosen for the captive-bred and ranched specimen review could be referred back to the RST. Working group Chair Lörtscher noted there was no automatic mechanism for this, and the European Union (EU) suggested that RST species selection could be revisited in plenary.

Some candidates were omitted because the countries under consideration were subject to other ongoing CITES processes. Mexico proposed this criterion for exclusion be specified for future review selection processes. One species was excluded because source code discrepancies were introduced by importing countries, rather than the exporting country, thus a survey of the latter would not yield useful information.

The working group developed a questionnaire for countries identified in the selected species-country combinations, with several delegates suggesting that questions be tailored to the specific circumstances of the targeted countries and species. Additional questions proposed for the draft questionnaire included details about: ranching and breeding facilities and their establishment; reporting on NDFs; regulations or measures in place for monitoring facilities that claim to be captive breeding, such as whether facilities are required to keep records of specimen acquisition, maintenance, and breeding, and whether authorities verify these records; recent population surveys and the methodology used for NDFs; and requests for any relevant further information.

The working group also formulated terms of reference for the planned intersessional working group on NDFs for specimens with source codes W, R, and F, with Canada proposing several amendments to the draft text.

In plenary on Friday, 21 July, working group Chair Lörtscher presented the recommendations (AC29 Com.11). He outlined the table of selected species-country combinations, justification for selection, and questions that would be asked to each party under review. He explained the working group had not had time to consider a prioritized list of species for the review of breeding biology, captive husbandry, and impacts of removal of founder stock from the wild, and proposed that, as AC Chair, he would collaborate with the Secretariat and IUCN Species Specialist Groups to develop such a list. He also presented four cases of enforcement concern to be referred to the Secretariat, five points related to opportunities to harmonize with RST and improve the review process, and the terms of reference for the intersessional working group on NDFs for specimens with source codes R, F, and W.

In discussions, Canada reflected on additional improvements to the review process, including asking countries under review open-ended questions, instead of ones linked to source codes. Observers expressed differing views on this suggestion, with concerns raised about deliberate misuse of source codes.

Kenya looked forward to seeing whether information provided by parties in this review might be of assistance to other taxa in non-wild production systems. South Africa queried whether a two-phase process might simplify the review, and Chair Lörtscher recalled that the RST had formerly used a similar staged review, but this had slowed down the process.

The AC formed an intersessional working group, which planned to begin its work electronically. Granting discretion to the Secretariat to streamline the questionnaire, the AC adopted the recommendations on captive breeding with some corrections, including amendments to the text of the notification to parties under review, and suggested improvements to the review process, including by referring compliance issues to the SC.

Outcome: The recommendations (AC29 Com.11) contain five parts:

- the identification of 23 species-country combinations for review, along with justifications for their selection and draft questions for selected countries;
- plans for the AC Chair, in collaboration with the Secretariat and IUCN Species Specialist Groups, to determine a prioritized

list of species for which a short review of the breeding biology, captive husbandry and any impacts, if relevant, of removal of founder stock from the wild;

- four urgent enforcement matters for referral to the Secretariat and SC, including on Egyptian spiny-tailed lizard from Syria and three species of *Python* from Lao PDR;
- provisional observations and recommendations regarding the first iteration of the captive breeding review process; and
- terms of reference for an intersessional working group and potential consultant on NDFs for specimens from production systems with source codes R, F, and W.

The 23 species-country combinations for review are:

- African spurred tortoise (*Centrochelys sulcata*) from Benin, Ghana, Guinea, Mali, Sudan, and Togo;
- Wallace's golden birdwing (*Ornithoptera croesus*) from Indonesia;
- Fennec fox (*Vulpes zerda*) from Sudan;
- White cockatoo (*Cacatua alba*) from Indonesia;
- Savannah monitor (*Varanus exanthematicus*) from Ghana and Togo;
- Timor monitor (*Varanus timorensis*) from Indonesia;
- Indian rat snake (*Ptyas mucosus*) from Indonesia;
- Hermann's tortoise (*Testudo hermanni*) from the Former Yugoslav Republic of Macedonia;
- Strawberry poison frog (*Oophaga pumilio*) from Nicaragua and Panama;
- Red-eyed tree frog (*Agalychnis callidryas*) from Nicaragua;
- Tiger tail seahorse (*Hippocampus comes*) from Viet Nam;
- Crocus clam (*Tridacna crocea*) from the Federated States of Micronesia;
- Open brain corals (*Trachyphyllia geoffroyi*) from Indonesia;
- Black-capped lory (*Lorius lory*) from South Africa;
- Indian star tortoise (*Geochelone elegans*) from Jordan; and
- Crab-eating macaque (*Macaca fascicularis*) from Cambodia.

QUOTAS FOR LEOPARD HUNTING TROPHIES: On Friday, 21 July, the Secretariat introduced the document on quotas for leopard (*Panthera pardus*) hunting trophies and skins for personal use (AC29 Doc.16) and relayed an update from range state Malawi, announcing it had adopted a zero quota due to conservation concerns.

Europe commended Malawi's zero quota and urged other range states to conduct NDFs and report to AC30. Tanzania requested support from the Secretariat in implementing a national conservation action plan for large carnivores, including the leopard. South Africa highlighted its adaptive management approach based on a national monitoring programme, noting that this led them to set a zero quota in each of the past two years. Citing its similarly adaptive approach to setting leopard quotas, Zimbabwe explained how it monitors the ages of harvested leopards to ensure viable populations. Uganda said it had commissioned a study to establish threat levels to the survival of wild leopard, which it would share with the Secretariat upon completion. Having outlawed the hunting of leopard in 1977, Kenya said it continues to take action on the conservation and management of the species, among other large carnivores. IUCN commended the review of leopard quotas in light of the species' uplisting to "vulnerable" IUCN Red List status in 2016, and offered its support to range states and the Secretariat. The AC noted the document.

TRADE CONTROL AND TRACEABILITY

DEFINITION OF THE TERM "APPROPRIATE AND ACCEPTABLE DESTINATIONS": On Friday, 21 July, the Secretariat introduced the document in plenary (AC29 Doc.18).

She said the Secretariat did not have sufficient time and resources to be in a position to report to AC29 on its assigned tasks from Decision 17.178, including documenting the history of Resolution Conf.11.20 (Rev. CoP17) on definition of the term "appropriate and acceptable destinations" and making an inventory of parties' implementation of the resolution and associated challenges. She said the Secretariat is currently undertaking this study and suggested that in order to make progress before AC30, the AC consider establishing an intersessional working group to provide comments on the Secretariat's anticipated report.

Participants outlined criteria to be addressed by this definition, including animal welfare criteria regarding housing and transit. Several participants elaborated on positive and negative case studies and offered their assistance in the process.

The AC established an intersessional working group, co-chaired by North America, Africa and Asia, to review the study undertaken by the Secretariat on a definition of the term "appropriate and acceptable destinations," and draft findings and recommendations for consideration at AC30.

The intersessional working group met briefly on Friday, 21 July, to organize its work. The Secretariat encouraged participants to: report on best practices as well as problems; share experiences with implementation of the original Resolution Conf.11.20, and potential changes in response to the revisions to this resolution made at CoP17; and comment on the report that the Secretariat will produce.

Outcome: The AC noted the document and established an intersessional working group that will correspond by email and report to AC30.

PROGRESS IN THE DEVELOPMENT OF AN IDENTIFICATION GUIDE FOR THE SPECIES OF THE GENUS ABRONIA: On Friday, 21 July, Mexico presented its report on progress in development of an identification guide of Alligator lizards (*Abronia* spp.) (AC29 Doc.19 (Rev.1)). Participants commended Mexico on its progress, with some suggesting that this guide serve as a model to be more widely applied to prevent the listing of whole groups under look-alike criteria. There was a call for an English translation of the guide. The AC noted the report, including the invitation to provide feedback on the guide.

SPECIES-SPECIFIC MATTERS

STURGEONS AND PADDLEFISH: Conservation of and trade in sturgeons and paddlefish: On Tuesday, 18 July, the Secretariat presented the document on sturgeon and paddlefish conservation and trade (AC29 Doc.20.1), highlighting two matters that were not agreed by consensus at CoP17: the content of a table on stocks shared by range states (Annex 3 of Resolution Conf.12.7 (Rev. CoP17)), and the definition of "country of origin of caviar." The Russian Federation clarified some concerns on shared stocks in the Black Sea.

A working group, chaired by North America representative Carolina Caceres (Canada), was established to review information provided by range states on shared stocks, and to consider definitions and potential guidance to the SC on "country of origin of caviar."

On Wednesday, 19 July, no consensus was reached in the working group about whether to consider Black Sea sturgeons as shared among all Black Sea countries, with some range states pointing to genetic evidence that Danube sturgeons are a distinct stock. Chair Caceres concluded that there was a lack of scientific information on stock mixing and migration. Participants

called for: research cooperation among range states; a regional management plan; and establishment of a Black Sea regional fisheries management organization (RFMO).

The working group also considered the SC's recommendation, presented at CoP17, to include a definition for "country of origin of caviar" in Annex 1 to Resolution Conf.12.7 (Rev. CoP17) on sturgeon. Recognizing that the trade in caviar is now primarily from aquaculture, they acknowledged that the complexity of current aquaculture practices, with frequent and unreported mixing of captive-bred stocks, make reporting the "country of origin" cumbersome. They therefore considered the proposed definition: "country in which a registered processing plant harvests roe." However, several participants expressed concern over this definition, citing practices in which fish are taken from the wild in one country and their roe harvested in another. They feared the new definition would encourage laundering practices and set an undesirable precedent for other products relevant to CITES, such as manufactured goods made from snakes. No agreement was reached on this. Recognizing the need for more robust control over wild sturgeon harvests, participants also addressed the issues of traceability and labeling and permit provisions. Stressing the need for "a practical approach," participants agreed to ask the SC to "consider other options."

On Friday, 21 July, working group Chair Caceres reported to plenary on the group's outcomes. She noted that although the group did not arrive at consensus, there was a "productive dialogue," leading to a better understanding of the complexity of the issues.

Ukraine proposed deleting the paragraph on shared stocks directing the SC to consider amending the table in Annex 3 on the Black Sea and Lower Danube stock, and the EU proposed adding reference to the need to consult with other countries in the region. Following further discussion, the AC, including Ukraine, agreed to retain the recommendation on potential changes to the table, with the addition of text indicating that such an amendment be considered subject to the availability of relevant scientific data and to consultation with other parties from the region.

On "country of origin of caviar," Europe suggested considering the use of source codes to document the origins of roe, and the AC agreed to refer the matter to the SC for further work.

The AC adopted the recommendations with the indicated amendments.

Outcome: Among other things, the AC recommends (AC29 Com.4) transmitting the following observations to the SC:

- collaborative research is needed to address knowledge gaps regarding the distribution and migration of stocks of sturgeon species in their respective jurisdictions, particularly in the Danube and Black Sea;
- with respect to the definition of "country of origin of caviar," no consensus was reached, although there is a desire to create a practical approach to the caviar trade system in light of current production systems and traceability issues; and
- strict controls are needed on wild harvest to prevent laundering from wild sources into aquaculture.

Identification of sturgeons and paddlefish specimens in trade: On Tuesday, 18 July, the Secretariat introduced the agenda item (AC29 Doc.20.2), noting with regret that funds were not available to support the requested study. The AC noted the report.

EELS: On Thursday, 20 July, the Secretariat introduced the document on eels (*Anguilla spp.*) (AC29 Doc.21). Participants suggested that future work on eels: include non-CITES-listed species; involve import states of all species in the review process; and identify information gaps. The AC established an intersessional working group on eels, to be chaired by Europe

and conducted primarily by email, which will: review studies produced by the Secretariat and other relevant information; consider outcomes from any technical workshops organized; and report to AC30 with provisional recommendations. Participants of the intersessional working group met following plenary to plan their work.

PRECIOUS CORALS: On Tuesday, 18 July, the Secretariat introduced the document (AC29 Doc.22), highlighting the results of a survey in which parties and RFMOs were invited to provide, on a voluntary basis, information on precious coral resources. He noted that the US National Oceanic and Atmospheric Administration (NOAA) has confirmed financial support for the implementation of Decision 17.191, which requests the Secretariat to collaborate with the FAO in commissioning a study by species experts on CITES- and non-CITES-listed precious coral species, and to prepare a report on the conservation status and trade of precious corals for consideration at AC30.

The AC formed a working group to analyze the outcomes of the precious corals survey and associated information (AC29 Inf.24), and define terms of reference for an intersessional working group on corals.

The working group met on Thursday, 20 July, chaired by Europe representative Simon Nemptov (Israel) and Asia representative Giyanto (Indonesia). Analyzing AC29 Inf.24, participants expressed concern that many range states and major trading countries had not contributed data. The Secretariat clarified that the survey was voluntary, and that information gathering will continue. Participants underscored the lack of data on the conservation and trade of non-listed species, noting that illegal, unreported, and unregulated (IUU) fishing and existing stockpiles further complicate the situation, and called for a gap analysis on regional management and synergies between RFMOs and CITES.

On the question of whether there are non-listed coral species that might benefit from listing on CITES appendices, one participant questioned whether CITES-listed species had benefited from their listing. Participants agreed on the need to evaluate this. They also drew parallels between CITES discussions on corals and those on plants with regard to artificial propagation and synthetic biology.

On Friday, 21 July, working group Chair Nemptov reported to plenary on the group's discussions. He stressed that no RFMOs had responded to the survey, but that information from the General Fisheries Commission for the Mediterranean was added during the working group session. He summarized that an intersessional working group would: outline elements of a consultant study commissioned by the Secretariat on these issues, to be carried out as soon as possible; analyze the outcomes of this study; and formulate recommendations for AC30. Nemptov invited countries, RFMOs and trading partners who had not yet provided input into the survey to do so, even though the deadline for submission had passed.

The AC adopted the recommendations of the corals working group.

Outcome: The AC recommends (AC29 Com.8) that the Secretariat call for additional responses from important coral trade importing and exporting parties and other relevant RFMOs that had not responded to the survey on precious corals, and distribute these responses to the working group. The AC also recommended that the Secretariat, in cooperation with parties and the FAO, identify and invite more experts, including from the coral industry, to join the intersessional working group.

The recommendations summarize comments on the eight themes addressed in the analysis of the outcomes of the precious corals survey: general information and population status; legislation and regulatory framework; management framework; international trade; enforcement; research; role of RFMOs; and mariculture. The recommendations outline other issues to be covered by the study by species experts called for in Decision 17.191, including, among other things, that the study: not “get bogged down in too many details;” address black corals separately from red/pink corals; consider as its main questions whether the international trade is sustainable and whether there are populations/species whose conservation status is affected by trade; and discuss the effectiveness of legislation and management measures.

The document also lists terms of reference for the intersessional working group, specifying its tasks of:

- analyzing the study commissioned in response to Decision 17.191, formulating recommendations for consideration at AC30, and preparing recommendations on actions to enhance the conservation and sustainable harvest;
- reviewing other relevant issues, such as identification of corals and coral products in trade issues; and
- considering potential future enforcement issues, such as synthetic corals.

SHARKS AND RAYS: On Tuesday, 18 July, the Secretariat introduced the report on sharks and rays (AC29 Doc.23), which considers directions from CoP17 to the AC to examine new information from range states on trade and other data, make species-specific recommendations to improve the conservation status of sharks, and report on progress to the CoP. The Secretariat said parties had provided extensive data in response to its request for information, and Oceania thanked the Secretariat for its report. The Secretariat recognized the EU for its confirmed project funding for CITES implementation, which includes capacity building linked to sharks and rays.

The AC formed a working group, chaired by Oceania representative Hugh Robertson (New Zealand), to examine new range state and trade data and identify new challenges faced by parties in implementing the Convention with regard to sharks, among other issues relevant to shark and ray conservation.

On Wednesday, 19 July, the working group invited parties to discuss and add to their notifications on sharks (AC29 Doc.23 Annex 1), with ensuing comments highlighting management efforts and national plans of action, import and export considerations, and training efforts undertaken within countries. Among other things, the working group considered: the challenges of conducting NDFs for bycatch species; options for machine-learning technologies to facilitate species identification for wet and dried shark fins; several guides on shark fin identification; and the need for national-level capacity building to implement CITES listings.

Delegates discussed the role of genetic testing in identification and enforcement, noting, *inter alia*: the challenges of identifying processed products in the supply chain and advances in genetic testing, but limits to laboratory space and capacity. They commented on: the need for a guide to parties outlining available genetic tools and resources; the prohibitive costs of much genetic testing, especially for developing countries; the challenges of genetic testing in the field; and the importance of alerting the scientific community to requests for rapid genetic testing technologies and field kits. Extensive discussions also addressed the possibilities for and challenges of developing NDFs for species caught as bycatch, with consideration of setting quotas by

weight or individuals, whether fisheries should be closed once a bycatch limit is reached, and how to address differing definitions of bycatch.

Some participants pointed to the potential counterproductive effects of CITES listings, where prohibitions on landing certain species undermine data availability. Others questioned CITES’ responsibility for this, noting that the harvest of many species had already been banned under RFMOs.

On Friday, 21 July, working group Chair Robertson introduced the report on sharks in plenary, summarizing the 15 recommendations developed by the group. He said the group had not identified any new challenges arising from CoP17 species listings, and noted discussions had focused on scientific and technical implementation issues, rather than on species-specific conservation recommendations.

The AC adopted the report with minor amendments.

Outcome: In the 15 recommendations (AC29 Com.3), among other things, parties and other relevant organizations and stakeholders are encouraged to:

- collaborate in developing techniques and opportunities for rapid and cost-effective DNA testing of shark and ray products;
- share protocols for the collection and curation of tissue material and product samples derived from CITES-listed species, aimed at developing and testing genetic identification procedures and other forensic approaches, such as isotope analyses;
- develop robust, low-cost tools and systems, where not in existence, to ensure that CITES species are identified accurately at the first point of capture/landing;
- provide clear imagery of wet and dried unprocessed shark fins (particularly but not exclusively those from CITES-listed species) along with related species-level taxonomic information to FAO to facilitate refinement of iSharkFin software using machine learning; and
- recognize the value of the FAO Port State Measures Agreement in supporting compliance with CITES provisions for listed shark and ray species.

With several specifications, including consideration of data-poor, multi-species, small-scale/artisanal, and non-target (bycatch) situations, the AC recommends that parties and regions share their experiences in developing NDFs for sharks and rays, share these NDFs via the CITES Sharks and Rays Portal, and identify gaps in capacity.

FRESHWATER STINGRAYS: On Tuesday, 18 July, the Secretariat introduced the document (AC29 Doc.24). Brazil highlighted its activities concerning the study and conservation of freshwater stingrays (*Potamotrygonidae* spp.), including the preparation of a book featuring all traded species. Wildlife Conservation Society and Defenders of Wildlife stressed the need for additional field data to inform the precautionary management of freshwater stingrays.

The AC formed a working group with the mandate to make recommendations on how to proceed with the information compiled in Annexes 1-9 of AC29 Doc.24 in the context of developing population trend models for freshwater stingrays. The working group was chaired by Marcel Enzo Calvar Agrelo (Uruguay), regional representative for Central and South America and the Caribbean.

On Thursday, 20 July, working group discussions addressed the difficulty of determining whether certain freshwater stingray species are threatened, given the lack of data on the status of populations, the number of species, and trade. Participants recommended: clarifying and compiling available data on life

history and population parameters of freshwater stingrays; identifying data gaps; and designing research to fill those gaps to complete productivity and population analyses.

In plenary on Thursday, 20 July, working group Chair Agrelo introduced the recommendations, noting that current data from range states on freshwater stingrays was insufficient for population modeling. Participants amended the recommendations to place more emphasis on field studies and taxonomy and to encourage financial assistance for this work.

The AC adopted the recommendations with amendments.

Outcome: The AC (AC29 Com.6) encourages parties, organizations, and other relevant stakeholders to:

- identify the type of population modeling that will inform whether harvest for international trade is detrimental to the species in the wild;
- seek funding and conduct field studies to gather data, as well as collate already available data, on key life history and population parameters, international trade, and taxonomy of freshwater stingrays; and
- identify data gaps and research required to support modeling of populations.

BANGGAI CARDINALFISH: Report of the Secretariat:

On Tuesday, 18 July, the Secretariat presented the report on Banggai cardinalfish (*Pterapogon kauderni*) (AC29 Doc.25.1). He recalled that an Appendix-II listing proposal for this species was withdrawn at CoP17, with delegates instead adopting decisions that, among other things, urged range state Indonesia to implement conservation and monitoring measures for the species and the Secretariat to commission a study assessing the impact of international trade on its conservation status. He said the EU and US were co-funding the implementation of the latter decision, and called on AC29 to focus on ways to support Indonesia's efforts.

Indonesia's initial progress report: Indonesia presented the relevant document and additional information (AC29 Doc.25.2 and Inf.21), elaborating on ongoing and planned initiatives.

The AC established a working group, chaired by North America representative Gnam (US) and alternate North America representative Carolina Caceres (Canada). In the working group on Thursday, 20 July, Caceres invited input on the nature and scope of the Secretariat's planned study. Participants suggested looking into: whether trade in captive-bred specimens from Thailand removes incentives for local communities in Indonesia to conserve the species and their ecosystems; *in situ*, rather than *ex situ*, breeding of species in order to conserve local ecosystems; and strategies to involve local communities in management and conservation and to encourage the sustainable use of the species as a basis for sustainable livelihoods. Indonesia provided additional details on its initial progress report, and several non-governmental organizations (NGOs) offered financial assistance for its work. The group also discussed the safeguarding of populations outside of monitoring areas and concerns about restocking and reintroductions, including genetic mixing. Caceres presented the group's conclusions in plenary on Friday, 21 July. She said participants had, *inter alia*: commended Indonesia's progress report; invited Indonesia to provide additional data by AC30; and voiced concern about the general lack of data on conservation status and trade in Banggai cardinalfish.

The AC adopted the recommendations.

Outcome: The AC recommends (AC29 Com.10), among other things, that the Secretariat's planned study analyze the utilization and trade of Banggai cardinalfish, including specimens sourced from the wild and captive breeding within and outside of Indonesia, and further assess the potential conservation risks and benefits from international trade in specimens from these sources.

QUEEN CONCH: On Tuesday, 18 July, the Secretariat introduced the document on Queen conch (*Strombus gigas*) (AC29 Doc.26), noting that sufficient funding had not been confirmed for the tasks assigned to the Secretariat by CoP17. He pointed out that scientific quotas make up a large portion of Queen conch export quotas, and that no guidance is currently available on the matter. He described progress by Honduras towards a quota based on sound scientific evidence and a draft national management plan.

On reviewing the process of establishing a scientific quota, the Secretariat said it is unknown which countries engage in scientific Queen conch harvest, and recommended that the AC reach out to all 36 range states to learn how they apply science in harvest and trade regimes. He announced a range state meeting to be held in 2018, before AC30. The US suggested issuing a questionnaire to range states quickly, so that results can be discussed at that regional meeting.

The AC established a drafting group, consisting of North America, Europe, South and Central America and the Caribbean, Mexico, and the Secretariat, to draft the questionnaire for Queen conch range states.

On Friday, 21 July, North America presented the notification to Queen conch range states in plenary, as proposed by the drafting group in consultation with the Secretariat. The AC adopted the notification.

Outcome: In its notification to Queen conch range states (AC29 Com.9), the AC requests all range states to submit information on: the extent to which they use scientific research in the making of NDFs; their process for establishing levels of export for specimens of Queen conch; the process for, and the objectives of, setting "scientific quotas," if any, for Queen conch; and whether the catch from scientific surveys contributes to their overall exports. The AC also invites the Queen conch range states to submit relevant information by early 2018 so that it can be discussed at AC30.

BLACK SEA BOTTLENOSE DOLPHIN: On Thursday, 20 July, the Secretariat introduced the document on Black Sea bottlenose dolphin (*Tursiops truncatus ponticus*) (AC29 Doc.27).

Recalling that AC30 will consider information submitted by parties to evaluate the effectiveness of the zero annual export quota for the Black Sea bottlenose dolphin from the wild for primarily commercial purposes, and if necessary, make recommendations to CoP18, the AC noted the report.

AFRICAN WILD DOG: On Friday, 21 July, the Secretariat introduced the document on the African wild dog (*Lycaon pictus*) (AC29 Doc.28), submitted by Burkina Faso. Recalling Decisions 17.236 and 17.237, encouraging range and consumer states of the African wild dog to cooperate with the Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals (CMS), CMS highlighted the joint CMS-CITES African Carnivores Initiative (described in the annex to AC29 Doc.29 on African lion (*Panthera leo*)) and stressed a willingness to support range states in implementing decisions on the African wild dog. Europe lauded the collaboration between CMS and CITES, calling it an "excellent use of the resources of both Conventions."

Humane Society International highlighted a recent scientific study on the impacts of climate change on African wild dogs. In response to a question from Conservation Force, AC Chair Lörtscher clarified that UNEP-WCMC lacked trade data on the African wild dog because it is not listed in CITES appendices.

The AC noted the document.

AFRICAN LION: On Thursday, 20 July, the Secretariat introduced the document on African lion (AC29 Doc.29), highlighting the African Carnivore Initiative developed with

CMS on African lions, cheetahs (*Acinonyx jubatus*), leopards (*Panthera pardus*), and African wild dogs. CMS announced recent recommendations from its Scientific Committee to list African lions and leopards on CMS Appendix II at its next COP, to be held in Manila, the Philippines, in October 2017. While welcoming support for carnivore conservation, some, including Tanzania and Zimbabwe, expressed doubt that lions should be listed under the CMS appendices. Several speakers lauded the EU's funding of implementation work on CoP17 decisions related to lions. The AC noted the document.

AFRICAN GREY PARROTS FROM DRC: The Secretariat introduced the document on African grey parrots (*Psittacus erithacus*) (AC29 Doc.30) on Friday, 21 July. Outlining the suspension of trade of African grey parrots from the Democratic Republic of the Congo (DRC) recommended by SC66 in early 2016, along with requests to the DRC to complete a field survey and National Management Plan, the Secretariat recalled that the species had subsequently been uplisted to Appendix I at CoP17, with reservations entered by the DRC, Saudi Arabia, and the United Arab Emirates. The Secretariat clarified that while parties with reservations are considered as non-parties for the species in question, they are encouraged to treat those species as Appendix II-listed species. He noted that the DRC had not yet submitted the requested information to the Secretariat, but also highlighted that such a submission was voluntary.

Discussion ensued on the interpretation of the Convention and legality of trade in this situation, with queries raised about whether trade suspensions take precedence over reservations, how to address trade between parties with reservations, and the implications of the transfer between appendices for the DRC. The Secretariat noted there are “several possible legal interpretations,” and AC Chair Lörtscher and several members underscored that matters of compliance are beyond the mandate of the AC.

Noting the challenges posed by the political situation in the DRC, one observer described ongoing scientific work on the species in the country, requesting advice on the legality of trade and authorization for an interim “experimental” export quota during the study. Saudi Arabia explained it had already suspended trade for commercial purposes with the DRC, and that its reservation was entered because of challenges of national implementation of the listing.

The AC referred further matters of clarification and concern to the SC for consideration, noting that it would not recommend “experimental” export quotas for the DRC at this stage.

SNAKES: Conservation, sustainable use of and trade in snakes: On Tuesday, 18 July, IUCN presented a document on the conservation and sustainable use of and trade in snakes (*Serpentes* spp.), containing an annex on “NDFs for Snakes: Guidance for CITES Scientific Authorities” (AC29 Doc.31.1). He said this was a revised version of a document presented to AC28, noting it was developed in part through a workshop in Malaysia in May 2017 with scientific experts, several range states, and other CITES parties. North America expressed hope that similar guidance might be developed for other taxa. Europe pointed to case studies as a helpful component of the document. Indonesia and Malaysia welcomed the guidance, and China praised the inclusion of sustainable harvesting in the document.

Information from Benin, Ghana, Honduras, Indonesia and Togo: The Secretariat introduced a document on species- and country-specific measures on snake conservation, sustainable use of and trade in snakes in Benin, Ghana, Honduras, Indonesia, and Togo (AC29 Doc.31.2), noting that the specified parties should submit information by AC30. The AC noted the document.

Standards for python traceability: Switzerland introduced the document on standards for python traceability (AC29 Doc.31.3), noting it was prepared by General Specifications 1 (GS1). GS1 outlined its review of international standards and tracing measures along the python supply chain. He noted the report promotes “batch traceability” over individual skin tracing because of costs, but cautioned that both systems are hampered by illegal trade.

The AC established a working group on snakes to continue discussions and make recommendations to the SC, as appropriate.

The working group, chaired by AC Chair Mathias Lörtscher, reviewed AC29 Doc.31.1 with the Secretariat providing additional information. Responding to concerns about how to keep the large number of CITES guidance documents up to date, he announced the Secretariat's intention to conduct a gap analysis on NDF guidance. Participants addressed challenges related to data deficiency, particularly regarding newly listed species.

Discussion then centered on python traceability definitions and standards (AC29 Doc.31.3). Participants identified various logistical and technological challenges. There was a broad call for additional control steps throughout the supply chain. One participant drew the link between traceability, labeling, and consumer awareness, noting that labels should include more information on issues beyond origin, such as animal welfare. They agreed that “traceability is no silver bullet” when it comes to combating illegal trade, stressing the need to address root problems and incentives.

On Friday, 21 July, in plenary, the AC heard the proposed recommendations. Several parties praised the NDF guidance on snakes and said it should be used as a model for NDF guidance for other organisms.

The AC adopted the recommendations.

Outcome: On snake conservation and sustainable use and trade, the AC welcomes the guidance on making NDFs for snakes (AC29 Com.1), and asked the Secretariat to make the guidance available to parties on its website. On standards for python traceability, the AC agreed to submit the document on traceability (AC29 Doc.31.3) to the SC for consideration.

TORTOISES AND FRESHWATER TURTLES: On Thursday, 20 July, the Secretariat introduced the document on tortoises and freshwater turtles (*Testudines* spp.) (AC29 Doc.32). She outlined various actions to be undertaken by the Secretariat and others as commissioned by CoP17 Decision 17.291, including the development of technical guidance to CITES Scientific and Management Authorities, and the establishment of a CITES Tortoises and Freshwater Turtles Task Force. The AC recommended that trade in breeding-age adults be restricted in order to protect the breeding populations.

The AC noted the amended report.

MAINTENANCE OF THE APPENDICES

PERIODIC REVIEW OF THE APPENDICES: Overview of species under periodic review: The Secretariat introduced the relevant document (AC29 Doc.33.1) on Tuesday, 18 July, highlighting the call for an online database and associated funding needs. Europe, supported by the US, questioned the efficiency of continuously checking and revising data, but supported an online database as well as increased efforts to seek funding.

Selection of species for the periodic review: The Secretariat introduced the relevant document (AC29 Doc.33.2 (Rev.1)) on Tuesday, 18 July, underscoring that the selection will be valid through CoP19 in 2022. He also emphasized that most reviews will require funding. UNEP-WCMC provided additional details on this document, including the provision that no periodic review

of whales will be conducted while the International Whaling Commission moratorium on commercial whaling is in place. In the context of the jaguar, currently on Appendix I, Mexico advocated the precautionary principle when engaging in “minimal trade.”

The AC established a working group to address matters pertaining to periodic review, chaired by North America representative Rosemarie Gnam (US).

The working group met on Thursday, 20 July, to: identify a list of animal taxa to review during the next two intersessional periods (from CoP17 to CoP19); consider possible funding necessary to continue with the periodic review; and make recommendations for how to facilitate periodic reviews. Participants identified 20 taxa for potential periodic review and, where possible, range states to conduct reviews. They also discussed possible funding sources and strategies to facilitate periodic reviews.

In plenary on Friday, 21 July, Gnam summarized the outcomes of the discussions on the periodic review. Chile, supported by Argentina, proposed removing *Chinchilla chinchilla* and *C. lanigera* as candidates for periodic review, noting their listing on Appendix I remains appropriate.

With the removal of two *Chinchilla* species, along with minor editorial changes, the AC adopted the report.

Outcome: The AC recommends (AC29 Com.7) the following 20 species as candidates for periodic review, with several range states volunteering to conduct the review, as noted:

- Argali (*Ovis ammon*) and domestic sheep (*O. aries*) complexes;
- Guadalupe fur seal (*Arctocephalus townsendi*), to be conducted by Mexico and the US;
- Tufted gray langur (*Semnopithecus priam*), to be conducted by India;
- Mexican prairie dog (*Cynomys mexicanus*), to be conducted by Mexico;
- Four species of Muridae: Greater stick-nest rat (*Leporillus conditor*), Shark Bay mouse (*Pseudomys fieldi praeconis*), False water-rat (*Xeromys myoides*), and Central rock rat (*Zyomys pedunculatus*);
- Common ostrich (*Struthio camelus*);
- Two species of *Dasyornis*: Western rufous bristlebird (*Dasyornis broadbenti litoralis*) and Western bristlebird (*Dasyornis longirostris*);
- Aleutian Canada goose (*Branta canadensis leucopareia*), to be conducted by the US;
- Atitlán grebe (*Podilymbus gigas*);
- Short-tailed albatross (*Phoebastria albatrus*), to be conducted by the US;
- Coahuilan box turtle (*Terrapene coahuila*), to be conducted by Mexico;
- Lilford’s wall lizard (*Podarcis lilfordi*); and
- *Aphonopelma pallidum*, to be conducted by Mexico.

The AC referred the table on Appendix I-listed animal taxa traded from wild sources for commercial purposes over the period 2006-2015 to the Secretariat and SC. On funding sources, the AC recommended, among other things, exploring possibilities with the SC Finance and Budget Sub-Committee and synergies with other ongoing regional and global initiatives for assessing species status, such as initiatives of CMS and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). On actions to facilitate periodic reviews, the AC recommends, *inter alia*, that AC regional representatives reach

out to range states in their region and that range states invite universities with relevant expertise to contribute to periodic reviews.

NOMENCLATURE MATTERS: Peter Paul van Dijk, AC Nomenclature Specialist, presented the report on zoological nomenclature (AC29 Doc.35) on Tuesday, 18 July. Among other things, he highlighted that the Asian/Indian lion (*Panthera leo persica*) is now considered to be part of the northern African lion population based on new genetic information. He explained that there is no problem with listing the Asian/Indian lion on Appendix I and the African lion on Appendix II, pointing to precedents under CITES for which different subspecies are listed under different appendices.

He announced that the comprehensive checklist on sea horses (*Hippocampus* spp.) (AC29 Inf.22), submitted to CoP17 after the document submission deadline, will be considered by the AC, and that based on new nomenclature insights, listing of the genus *Ovis* (sheep) should be reconsidered and domestic sheep removed from the appendices.

Van Dijk also noted that CoP17 had listed several species for which no nomenclature standard has been adopted, and said that to remedy this, abstracts of online databases had been provided to AC29. He requested the continued assistance of parties in alerting him to relevant changes in the future, and highlighted the establishment of an online library of nomenclature standard references accessible to all parties.

The Secretariat reviewed ongoing work on the use of time-specific versions of online databases as standard nomenclature references, such as on “Corals of the World.” Europe highlighted potential legal ramifications if a CITES database is automatically linked to external databases, given that nomenclature changes could have implications for CITES listings.

CMS reported on relevant outcomes of its recent Scientific Committee meeting, held from 10-13 July in Bonn, Germany. At the upcoming CMS COP, she said the Scientific Committee will recommend using “Handbook of the Birds of the World” and the online version of “Eschmeyer Catalog of Fish” as standard nomenclature references.

The AC established a working group to address nomenclature issues, chaired by Van Dijk, which met on Wednesday, 19 July. On Friday, 21 July, in plenary, the AC heard the proposed recommendations on nomenclature. Discussions focused the recommendation to reject the proposed synonymization of the ray genus *Manta* into *Mobula*, in light of CMS’ decision to accept synonymization and the utility of harmonizing between conventions. Van Dijk said a number of parties in the working group had disagreed with the proposed synonymization, citing the need for additional taxonomic work on these genera.

The AC adopted the recommendations.

Outcome: The AC recommends (AC29 Com.2) that the Secretariat advise on the process to change the listings of:

- the Indian lion in Appendix I from “*Panthera leo persica*” to “*Panthera leo* (population of India)”; and
- *Ovis* in Appendix II from “*Ovis aries* (...)” to “*Ovis aries arkal*” and “*Ovis aries cycloceros*.”

On nomenclature standard references, the AC recommends:

- considering at AC30, for adoption at CoP18, the merit of proposing the IUCN Cat Specialist Group taxonomy (Cat News #11) as nomenclatural standard reference for Felidae;
- that parties evaluate the usefulness of adopting at CoP18 Lourie, Pollom and Foster (2016) as nomenclatural standard reference for seahorses.

On UNEP-WCMC, the AC recommends: that the parties support UNEP-WCMC's work to compile references to taxonomic and nomenclatural changes of CITES-listed species and share these with the AC Nomenclature Specialist; that the AC engage with UNEP-WCMC to explore options to clarify in its database the distinction between taxonomically valid names and invalid taxonomic synonyms; and that the AC and Secretariat liaise with UNEP-WCMC and INFORMEA to identify ways to complete the comparison of current and potential nomenclatural standard references with regard to CITES-listed birds.

Among other things, the AC also recommends:

- considering including the Eurasian species of the genus *Ovis* that are included in the CITES appendices in the periodic review;
- recognizing that at present it is not appropriate to accept the proposed synonymization of the Ray genus *Manta* into *Mobula*; and
- bringing the case of the viper *Daboia russelii* to the attention of the working group on Appendix III, and supporting the working group's deliberations with regard to nomenclatural aspects of Appendix III.

REGIONAL MATTERS

On Tuesday, 18 July, regional representatives presented their respective reports, with several lamenting the lack of responses from parties (AC29 Doc.37.1-37.6). The AC took note of the reports, which will be made available on the CITES website.

CLOSING SESSION OF AC29

During the closing plenary on Saturday, 22 July, the AC adopted executive summary reports for the meeting (AC29 Sum.1-4). AC Chair Lörtscher lauded the cooperative atmosphere at the meeting and the smooth handling of affairs, highlighting progress made in relation to the captive-breeding review. He closed AC29 at 4:45 pm.

JOINT MEETING OF THE ANIMALS AND PLANTS COMMITTEES

The Joint Meeting of the Animals and Plants Committee convened on Saturday, 22 July, co-chaired by AC Chair Mathias Lörtscher (Switzerland) and PC Chair Adrienne Sinclair (Canada).

REVIEW OF TERMS OF REFERENCE OF THE ANIMALS AND PLANTS COMMITTEES CONTAINED IN RESOLUTION CONF. 11.1 (REV. COP17)

The Secretariat introduced the document (AC29 Doc.6/PC23 Doc.7), noting the recommendation for the AC and PC to convene a working group to address the review.

Participants debated the merits of inviting observers from other processes, such as IPBES, to the working group, with several expressing doubt about the value of such participation for an internal CITES matter. Following concerns raised by Humane Society International, the Secretariat clarified that observers with experience with CITES would still be welcome, and the AC and PC agreed that while the working group would not actively invite participants from outside the CITES process, it would welcome insights from the experiences of other multilateral environmental agreements and scientific bodies.

The AC and PC agreed to establish an intersessional working group, chaired by the AC and PC Chairs and with wide regional representation, that would conduct its work electronically and report to AC30 and PC24.

STRATEGIC VISION

The Secretariat introduced the agenda item on the CITES Strategic Vision, noting there was no associated document. He explained that the current Strategic Vision spans 2008-2020, and that plans are underway for its review and update by 2019, to be led by the SC. Noting that a working group is expected to be established at the next SC meeting, he suggested the AC and PC identify potential representatives.

Outcome: The AC and PC agreed to have the AC and PC Chairs as representatives in the SC Strategic Vision working group, with the AC and PC Vice-Chairs also named as potential additional candidates if needed.

APPENDIX I-LISTED SPECIES

On Saturday, 22 July, the Secretariat introduced a document on Appendix I-listed species (AC29 Doc.8/PC23 Doc.9). Noting that the decisions from CoP17 outlined in the document were subject to securing funding, she summarized that these call for: a rapid assessment of the conservation status, legal and illegal trade data, and conservation priorities for Appendix I-listed species, and the leveraging of funding for species with high extinction risks for which conservation efforts and funding are not already in place. She underscored that this work would help CITES fulfill its Strategic Vision and determine how CITES contributes to achieving the Convention on Biological Diversity's (CBD) Aichi Biodiversity Targets.

On the question of enlisting a consultant to assess Appendix-I listed species, participants highlighted the need to secure funding before developing terms of reference. They agreed the scope of work for such an assessment was clear, but the methods required more specification, including on how to address data deficiencies, comparability across cases, and strategies to ensure cost-effectiveness. Participants considered how CITES parties and the AC might contribute to such work, and the UK suggested coordinating with IUCN Species Specialist Groups.

Outcome: The AC and PC established an informal advisory group to provide guidance to the Secretariat.

SPECIMENS PRODUCED FROM SYNTHETIC OR CULTURED DNA

The Secretariat introduced the document on specimens produced from synthetic or cultured DNA (AC29 Doc.15/PC23 Doc.16). He described the draft terms of reference for a study to be commissioned by the Secretariat on, among other things, tools for distinguishing between synthetic and cultured DNA and the threat posed by the trade of products derived from such DNA to the survival of CITES-listed species. The Secretariat requested key inputs into the draft terms of reference at the current joint meeting of AC29 and PC23, but proposed that parties could have 30 days to provide additional feedback.

AC Chair Lörtscher suggested taking all comments on the draft terms of reference at this meeting, rather than accepting inputs within 30 days, noting that in the latter case, members of the AC and PC would not have the chance to debate and agree on outcomes. North America, supported by Europe, suggested restricting the scope of the study and clarifying its aims. Europe suggested referring to both synthetic and cultured DNA as "bioengineered DNA" and said there was no need for tools for distinguishing between synthetic and cultured DNA, given this distinction does not impact trade. Lörtscher reminded participants that finding tools to distinguish between synthetic and cultured DNA was part of the mandate set by CoP17, and therefore might not be subject to amendment. Europe requested that the

study clarify definitions for synthetic versus cultured DNA, and, supported by Mexico, stressed the importance of not duplicating the work of other international agreements on this issue.

The AC and PC established a small drafting group to amend the draft terms of reference. In the afternoon, the drafting group reported back to plenary with additions to the text, including reference to: past discussions on specimens covered by the Convention, for example on rhino horn and ambergris; examining the different ways that DNA can be synthesized, cultured, or otherwise produced artificially; collating existing definitions for the various terms, including “cultured DNA,” “synthesized DNA,” and “bioengineered DNA” for the purpose of determining what is covered by CITES; and gathering case studies involving specimens of CITES-listed species.

Other additions related to the gathering of information on: existing or potential tools to distinguish between synthetic and cultured DNA; recent technological developments that produce substitutes for CITES-listed species; and relevant risk management measures and best practices. Reference was also made to ongoing discussions and work undertaken by other relevant international organizations, including the CBD and its protocols.

Outcome: With the specified changes, the AC and PC adopted the terms of reference for a study to be commissioned by the Secretariat on specimens produced from synthetic or cultured DNA.

TRANSPORT OF LIVE SPECIMENS

The Secretariat introduced the document (AC29 Doc.17/PC23 Doc.17), highlighting progress towards the review, revision and approval of transport guidelines for live specimens in collaboration with the International Air Transport Association (IATA). Noting that the document refers to “wild” specimens, the UK said captive-bred and ranched specimens should also fall under these guidelines. In response, the Secretariat recommended that this be addressed at a future CoP. Referring to a paragraph on “high mortality shipments of live specimens,” the Fondation Franz Weber flagged other animal welfare issues beside high mortality.

The AC and PC noted the document, commending the collaboration between CITES and IATA.

ANNOTATIONS

Canada presented the document (AC29 Doc.36/PC23 Doc.33), and elaborated on progress towards defining terms of reference for a working group on annotations to be established at the sixty-ninth meeting of the SC (SC69) in November 2017.

The US noted that the document pertains mainly to plant annotations, and suggested the AC look into animal species relevant to this process. The EU drew attention to misuse of annotations, noting that timber annotations are sometimes changed in order to avoid CITES trade controls. The Secretariat announced the completion of a timber trade study in close cooperation with the International Tropical Timber Organization (ITTO), as directed by Decision 15.35 (Rev. CoP16). The AC and PC noted the interim report.

INTERGOVERNMENTAL SCIENCE-POLICY PLATFORM ON BIODIVERSITY AND ECOSYSTEM SERVICES (IPBES)

The Secretariat reported on progress regarding collaboration with IPBES. He noted that due to unfortunate timing and a lack of funding, the CITES Secretariat had been unable to contribute to the IPBES thematic assessment on sustainable use and conservation of biodiversity, noting documents with information

on this issue (AC29 Inf.6/PC23 Inf.3). He also drew attention to the Memorandum of Cooperation between the CITES and IPBES Secretariats, signed in March 2017.

Mexico urged CITES and its parties to increase their efforts to secure financial and political support for CITES participation in the IPBES thematic assessment process.

OTHER MATTERS

CITES Secretary-General Scanlon presented a CITES Certificate of Commendation for outstanding effort in enforcement-related work to the Agri-Food and Veterinary Authority (AVA) of Singapore. He described the AVA’s significant role and persistence in bringing about legal justice following the seizure of 3,200 metric tonnes of CITES-listed rosewood in 2014, representing a market value of US\$50 million. The AVA accepted the Certificate with gratitude.

STRENGTHENING CONSERVATION AND SUSTAINABLE PRODUCTION OF SELECTED APPENDIX II SPECIES IN NORTH AMERICA – SYNERGIES WITH THE COMMISSION FOR ENVIRONMENTAL COOPERATION

Mexico introduced the relevant document (AC29 Doc.12/PC23 Doc.13), highlighting the development of action plans for five “priority species groups” with ecological and economic importance. Mexico suggested the initiative might inform similar cooperation in other regions.

The US and Canada thanked collaborators, the Commission for Environmental Cooperation, and other supporters. Canada noted its anticipation of a follow-up project to implement the action plans.

The AC and PC took note of the document and action plans.

APPENDIX III LISTINGS

The Secretariat introduced the document (AC29 Doc.34/PC23 Doc.30) inviting the AC and PC to, among other things, begin exploring ways to best advise the SC on Appendix III listings.

Europe stressed the need to consider a mechanism to review and, where appropriate, remove species on Appendix III. North America called for clear guidance on when an Appendix III listing is appropriate. On whether this work should focus only on new listings or also on implementation of measures pertaining to current listings, PC Chair Sinclair suggested the latter was a matter for the SC.

Ornamental Fish International drew attention to the fact that many importing parties are unfamiliar with the implications of Appendix III listings, citing examples of shipments being unnecessarily delayed or stopped by import authorities with negative repercussions for animal welfare. He suggested the AC and PC issue a notification to the parties informing them of the implications of Appendix III listings. The Secretariat said such information is already available on the CITES website, but Norway said an additional notification would be desirable and the US offered to provide text.

Outcome: The AC and PC established an intersessional working group on Appendix III listings, led by the AC and PC Chairs, which will: identify particular biological or trade characteristics for the species concerned; make suggestions for amendments to Resolution Conf.9.25 (Rev. CoP17) concerning guidance for range states on characteristics of species that may benefit from inclusion in Appendix III; and report to AC30 and PC24.

REVIEW OF SIGNIFICANT TRADE IN SPECIMENS OF APPENDIX-II SPECIES

Country-wide significant trade reviews: The Secretariat introduced the document (AC29 Doc.13.4/PC23 Doc.15.4), explaining that CoP17 had tasked the AC and PC with exploring the potential benefits and disadvantages of country-wide significant trade reviews as part of a broader evaluation of the RST conducted from 2004-2016. He recalled the AC and PC had agreed to undertake a case study to analyze the recent country-wide significant trade review of Madagascar, but that resources had not been secured for that work. Proposing the establishment of an intersessional working group on country-wide significant trade reviews, the Secretariat explained that while such a consultancy would be valuable, if resources were not available, the AC and PC could begin work on, *inter alia*, developing selection criteria and a mechanism for a wider needs/gap analysis.

The US emphasized its support for RST and country-wide significant trade reviews. Observer NGOs differed in their views. Humane Society International with the Species Survival Network expressed concern that country-wide significant trade reviews did not yield better results than species-by-species RSTs, while WWF countered that although there were challenges in the case of Madagascar, it was not a representative situation. PC Nomenclature Specialist Noel McGough echoed the call for a study of the Madagascar experience, emphasizing the need to learn from the process. Noting its work on reptile and timber trade in Madagascar, TRAFFIC offered to share its experiences.

Outcome: The AC and PC established an intersessional working group on the matter, chaired by AC North America representative Rosemarie Gnam (US) and AC Europe representative Vin Fleming (UK), as well as PC North America representative Adrienne Sinclair (Canada) and PC Nomenclature Specialist Noel McGough, tasked with assessing the potential of country-wide significant trade reviews, taking into account discussions in the joint AC and PC session, and reporting to AC30 and PC24.

CAPACITY BUILDING AND IDENTIFICATION MATERIALS

The Secretariat introduced the document (AC29 Doc.9/PC23 Doc.10) on a proposed workplan for an intersessional working group on capacity building and identification materials. Central and South America and the Caribbean stressed the need for regional identification materials and capacity building. Oceania cautioned against making identification materials available exclusively online, given limited internet access at many border and customs posts. North America suggested amendments to the workplan and recommended that it be further considered and modified by the intersessional working group.

Outcome: The AC established an intersessional working group, chaired by Oceania for the AC and Asia for the PC, tasked with, *inter alia*: considering the proposed workplan (AC29 Doc.9/PC23 Doc.10) and inputs and recommendations made at the joint AC29 and PC23 session; finalizing and implementing a workplan that will determine how to enhance the accessibility of available identification materials; and reporting to AC30 and PC24.

NON-DETRIMENT FINDINGS

The Secretariat introduced the document on NDFs (AC29 Doc.10/PC23 Doc.11.1), highlighting the increasing demands from parties for NDF guidance. He explained the Secretariat sought Committee views on their plans to propose a series of decisions to CoP18 on NDFs, including on systematically reviewing existing NDF guidance and on how to further encourage sharing of NDFs. Several reiterated support for NDF

guidance, lauded the value of NDF sharing for transparency and learning, and supported the Secretariat's proposal to develop draft decisions for the CoP. Mexico highlighted the potential intersections of NDF work with the IPBES thematic assessment of conservation and the sustainable use of biodiversity.

Outcome: The AC and PC agreed to the Secretariat developing draft decisions for CoP18 on NDFs, and requested these first be presented for consideration at AC30 and PC24.

CLOSING OF THE JOINT SESSION

The executive summary of the joint meeting was adopted during the Plants Committee meeting (AC29/PC23 Sum.1). CITES Secretary-General Scanlon commended participants on their efficient work. PC Chair Sinclair closed the joint session at 4:40 pm.

PC23 REPORT

On Saturday, 22 July, Secretary-General Scanlon observed that trees and timber would dominate the agenda at PC23 in light of more than 300 new species listed at CoP17, and warmly welcomed the new PC Chair, Adrienne Sinclair (Canada).

PC Chair Sinclair introduced herself, noting that her upbringing in small-town Ontario gave her a "very practical approach" to life that she hoped to apply to chairing PC23. She said the PC was a "tremendous opportunity" to merge historical knowledge with new ideas in plant conservation.

ADMINISTRATIVE MATTERS

On Saturday, 22 July, the Secretariat called on PC members to declare conflicts of interest, particularly financial interests that might impair their impartiality and independence. No such declarations were made.

The PC adopted documents on the rules of procedure (PC23 Doc.4.1 (Rev.1)), agenda (PC23 Doc.1), and working programme (PC23 Doc.2), and admitted observers (PC23 Doc.5). On rules of procedure, the Secretariat alerted participants that interlinked decisions adopted at CoP17 would affect the AC, PC, and SC in their establishment and communications procedures, and that these would be considered at SC69 prior to discussion by the AC and PC.

On Thursday, 27 July, Africa representative Ali Mahamane (Niger) was elected PC Vice-Chair.

STRATEGIC MATTERS

PLANTS COMMITTEE STRATEGIC PLANNING FOR 2016-2019 (COP17-COP18): Resolutions and decisions directed to the PC: PC Chair Sinclair introduced the document (PC23 Doc.6.1) on Monday, 24 July, noting its annexes contain overviews of currently valid resolutions (Annex 1) and decisions (Annex 2) relevant to the PC.

The PC noted the document.

PC workplan: Sinclair introduced the document (PC23 Doc.6.2). The PC established a working group for the purpose of finalizing a programme of work for 2017-2019 by assigning PC leads to specific resolutions and decisions.

On Wednesday, 26 July, Sinclair reported that PC leads had been identified for specific resolutions and decisions in Table 6.2 of the workplan.

The PC noted the document with the updated table.

NON-DETRIMENT FINDINGS: Guidance on making non-detriment findings for plants: Germany introduced the document (PC23 Doc.11.2) on the 9-Steps-NDF-Guidance developed by Germany and TRAFFIC as a reference for making NDFs for plants, noting similar guidance for timber species was under development.

The PC invited Germany to report back to PC24 to provide updates on this work

COOPERATION WITH OTHER ORGANIZATIONS AND MULTILATERAL ENVIRONMENTAL AGREEMENTS

COOPERATION WITH THE GLOBAL STRATEGY FOR PLANT CONSERVATION OF THE CONVENTION ON BIOLOGICAL DIVERSITY: Mexico introduced the document on cooperation with the Global Strategy for Plant Conservation (GSPC) of the CBD (PC23 Doc.14), highlighting progress on Resolution Conf.16.5, which, *inter alia*, directs the PC and Secretariat to promote CITES collaboration with CBD on the implementation of the GSPC.

Mexico regretted that CBD had not yet been informed of CITES parties' contributions to the objectives of the GSPC and urged the Secretariat to communicate with the CBD Secretariat on the matter. The PC agreed to the recommendations.

Outcome: The recommendations (PC23 Doc.14) direct the PC to:

- update Annex 1 to document CoP17 Doc.14.6 (Rev. 1), which currently contains information up to 2016, and request the potential re-issuing of a notification with a questionnaire on the implementation of Resolution Conf.16.5;
- update the information called for in Decision 17.54, which instructs the Secretariat to publish and update a summary of, *inter alia*, species selected for periodic review and RST, taking into account the amendments to the appendices adopted at CoP17; and
- share the report and communicate ongoing CITES parties' progress on the implementation of GSPC to the CBD Secretariat.

GENERAL COMPLIANCE AND ENFORCEMENT

REVIEW OF SIGNIFICANT TRADE IN SPECIMENS

OF APPENDIX-II SPECIES: Overview of the review of significant trade: On Monday, 24 July, the Secretariat introduced the document providing an overview of RST (PC23 Doc.15.1) as well as a document updating the PC on the development of a new RST tracking and management database (PC23 Inf.13).

North America requested a timeframe and budget for the project. The US urged prioritizing the tagging of documents in the database relevant to tracking and RST. Mexico suggested making other multilateral environmental agreements, such as the CBD, aware of the database upon its completion. The Secretariat clarified that: a timeline is described in PC23 Inf.13; a budget was not provided because full financing has already been secured; and document tagging would occur in parallel with the development of the new RST database.

The PC noted the documents.

Species selected following CoP16: On Monday, 24 July, the Secretariat introduced the document (PC23 Doc.15.2) and associated annexes.

UNEP-WCMC explained that of 10 range states consulted, seven had provided information on the distribution and population status of and threats to relevant species within their country, as well as trade information, details on legal protection status, and management and monitoring actions.

Argentina updated the PC on its measures to assess the status of and sustainably manage the Argentinian population of Holy wood (*Bulnesia sarmientoi*), including an inventory of the species, tools and training to improve traceability, and new regional management plans.

Selection of species for trade reviews following CoP17:

On Monday, 24 July, the Secretariat introduced the documents on the selection of species for trade reviews following CoP17 (PC23 Doc.15.3), highlighting that these were produced in close collaboration with UNEP-WCMC. She recalled the work conducted by an advisory working group, including participants from the AC and PC, on strategies to streamline and improve the transparency of the RST process.

UNEP-WCMC presented two outputs aimed at assisting the PC with identifying species for RST, involving a summary of wild-sourced trade from 2011-2015 (PC23 Doc.15.3 Annex 1) and an extended analysis (PC23 Doc.15.3 Annex 2). He added that, based on feedback from AC29, future iterations of these tables and analyses would provide additional data on trade suspensions and on the proportion of trade from each of the main exporting states. Pointing to RST as "core CITES business," PC Chair Sinclair lauded improvements to the process.

Peru offered details on its national measures for management, traceability, and sustainable harvesting for Big-leaf mahogany (*Swietenia macrophylla*). In response to questions on Annexes 1 and 2, particularly on species of mahogany and rosewoods (*Dalbergia*), UNEP-WCMC clarified that the tables are intended to inform PC deliberations on species to include in the RST by providing information on trade data and levels of threat. Belgium queried whether the selection methodology considered conversion factors for different timber products, such as logs versus sawn wood, and UNEP-WCMC noted that while such differentiation had not been part of working group discussions, this would be a useful consideration for future work.

The PC formed a working group, chaired by PC Nomenclature Specialist McGough, to, *inter alia*, review the 11 species-country combinations retained in the review after PC22 and recommend a limited number of species-country combinations of greatest concern for inclusion in stage 2 of the RST.

The working group met on Tuesday, 25 July. While excluded from RST, a number of species of succulents and orchids from Madagascar were assigned zero quotas in alignment with an announcement from Madagascar that the export of wild plants of those species had been suspended. For two species of orchid in Lao PDR, the working group followed the process from the AC where, in spite of conservation concerns, the species were listed as "less concern" and issues of compliance and conservation status were referred to the SC. The working group established a drafting group to develop text directed to range states on addressing possible non-sustainable trade and to support them in making NDFs.

In plenary on Thursday, 27 July, McGough outlined the recommendations on 11 species-country combinations retained in the review following PC22, with six identified as "action is needed" and retained in RST and five identified as "less concern" and excluded from RST. He also described eight species-country combinations identified for inclusion in stage 2 of the review.

On *Dendrobium* orchid species from Lao PDR, which the working group suggested be referred to the Standing Committee, Asia announced it would contact Lao PDR for information and report to the SC. IUCN explained concerns from its Orchid Specialist Group on illegal and unreported international trade in *Dendrobium* and other orchid species, and proposed adding text to highlight this issue. The US underscored that the text should retain mention of the difficulty of cultivating the species, explaining this was part of the reason for questioning the shift in export source codes of these orchids from "wild" to "artificially propagated."

McGough flagged the apparent inclusion of a coral in the RST for the PC, and the UK clarified that the genus name applied to both coral and orchid species, but the trade data was associated with coral.

Several discussions clarified the wording and intent of actions requested by countries included in the review. On red sandalwood (*Pterocarpus santalinus*) from India, McGough described the situation as “complicated,” with discussions ensuing on export volumes and confiscated material. The Secretariat clarified that a previous suspension on trade in the species had been lifted at SC62, and India had implemented a zero quota for wild-sourced specimens, an annual export quota for artificially propagated specimens, and a one-time export quota volume, which could be used over time, for stocks from confiscated materials. Following this additional information, the PC amended the recommended actions and timelines in the RST table, limiting the actions requested.

Outcome: The PC recommends that the following six species-country combinations be categorized as “action is needed,” and thus retained in RST:

- Kalahari cactus (*Hoodia gordonii*) from Namibia;
- Red sandalwood (*Pterocarpus santalinus*) from India;
- African cherry (*Prunus africana*) from Cameroon and Democratic Republic of the Congo;
- Spikenard (*Nardostachys grandiflora*) from Nepal; and
- Holy wood (*Bulnesia sarmientoi*) from Paraguay.

The PC recommends that the following species-country combinations be categorized as “less concern,” and thus excluded from RST:

- Giant snowdrop (*Galanthus elwesii*) from Turkey;
- Kalahari cactus (*Hoodia gordonii*) from South Africa;
- Golden-bow dendrobium (*Dendrobium chrysotoxum*) from Lao PDR;
- Musky-smelling dendrobium (*Dendrobium moschatum*) from Lao PDR; and
- Holy wood (*Bulnesia sarmientoi*) from Argentina.

The PC also recommended eight species-country combinations for inclusion in stage 2 of RST:

- Thailand rosewood (*Dalbergia cochinchinensis*) from Lao PDR, Cambodia, and Viet Nam;
- Cocobolo (*Dalbergia retusa*) from Nicaragua and Panama; and
- African teak (*Pericopsis elata*) from Cameroon, Congo, and DRC.

Additional recommendations and observations included: an acknowledgment of the significant progress made by range states of African teak (*Pericopsis elata*); notes on the publishing of zero quotas, including more than 30 taxa from Madagascar; and requests for the Secretariat to consult with Costa Rica on source codes for exports of *Phalaenopsis* orchid species.

TRADE CONTROLS AND TRACEABILITY

TIMBER IDENTIFICATION: Implementation of Decisions

17.166 to 17.169: On Monday, 24 July, PC Chair Sinclair introduced the document on implementation of CoP decisions on timber identification, including on scientific reference collections for the development of methodologies to identify CITES-listed tree species (PC23 Doc.18.1). She invited the PC to start developing a “realistic” workplan on this issue.

North America noted linkages with the work of the International Consortium on Combating Wildlife Crime. She suggested that the PC address taxa that require new or updated nomenclature references and increase focus on strengthening

the capacity for forensics techniques. Supported by the EU and Mexico, she called for a flexible and realistic approach with clear priorities and timelines.

Asia offered to share experiences with national reference collections and highlighted a CBD training course on identification of priority species.

Central and South America and the Caribbean recalled recent recommendations made by the IUCN Species Survival Commission’s Global Tree Specialist Group, including on mechanisms for gathering descriptions and tree samples for identification purposes. He called for increased cooperation between CITES and CBD in this regard. Noting limited capacities and finances of national laboratories, and referring to the report on the outcomes of the international workshop on CITES-listed tree species (PC23 Doc.26), held in Guatemala in February 2017, he also underlined the importance of reference collections at the regional level.

Highlighting the work of the Global Timber Tracking Network (GTTN), the EU called for increased synergies and avoiding duplication. Mexico suggested establishing more formal contact between CITES and the GTTN, and the World Resources Institute (WRI) affirmed its commitment to strengthening linkages between the two.

The International Wood Products Association emphasized that databases should also be accessible to the private sector, and called for faster identification procedures of shipments by authorities. ForestBased Solutions suggested addressing the maintenance of databases, rather than just their establishment.

Adaptation of the macroscopical timber identification tool CITESwoodID to CoP17 timber listings: On Monday, 24 July, Germany introduced the document (PC23 Doc.18.2), noting that CITESwoodID had proven a valuable tool during several training seminars and workshops. He said a new and updated version made in response to CoP17 decisions would be available in October 2017 in all CITES languages as well as German. PC Chair Sinclair and several delegates congratulated Germany on this work.

Central and South America and the Caribbean said while the tool is very useful, other initiatives should also be encouraged, including regional initiatives on non-CITES-listed species. The UK highlighted the InsideWood database, and the US drew attention to its document on timber identification capabilities (PC23 Inf.11). The Republic of Korea reported on the DNA analysis of conifers in Korea.

The PC established a working group on timber identification, chaired by Vera Teresinha Rauber Coradin (Brazil), representative for Central and South America and the Caribbean.

On Tuesday, 25 July, working group participants discussed the practical challenges of wood identification. They noted the need to develop harmonized methodologies for: identifying trees on a morphological basis before they are harvested; establishing reference collections and ensuring access to them; collecting specimens for reference collections; and conducting genetic analyses.

Participants noted harmonization challenges in the absence of a network of reference collections, with one highlighting GTTN and TRAFFIC work on a meta-database of sample collections. Others noted ITTO work on reference collections in Africa and existing GTTN standards for identification. Participants urged synergies between CITES and these organizations.

They recognized that capacity needs vary widely and called for a simple, accessible field identification tool for commonly traded timber species. One participant urged that standards be developed in an open, academic and peer-reviewed manner.

The Secretariat highlighted the development of a dedicated timber section on the CITES webpage, with links to relevant reference collections and identification materials. Some participants shared national experiences with reference collections and offered to make these available through the CITES portal.

Addressing the concern that CITESwoodID does not use standard nomenclature adopted by the International Association of Wood Anatomists, one participant noted that CITESwoodID was designed to be used by non-experts, although some wood identification training would still be necessary.

In plenary on Thursday, 27 July, working group Chair Rauber Coradin presented the working group report. After minor amendment, the PC adopted the recommendations contained in the report.

Outcome: The PC established (PC23 Com.7) an intersessional working group, co-chaired by Rauber Coradin (Brazil) and Ken Farr (Canada), to develop and implement a realistic workplan to carry out the tasks set out in Decision 17.167. In addition, the PC recommends, *inter alia*, that:

- the Secretariat liaise with ITTO and GTTN about existing tools and capacity applicable to CITES-listed tree species in trade;
- the Secretariat share information and resources via the tree species webpage set up by the Secretariat;
- all current and proposed listings have relevant and appropriate reference samples available;
- parties analyze and report existing gaps within available reference material, particularly in regard to highly traded species; and
- parties identify ways in which parties with timber identification capacity, in close cooperation with other stakeholders, can assist other parties that lack such capacities.

DEFINITION OF THE TERM “ARTIFICIALLY PROPAGATED”: Report of the Secretariat: On Monday, 24 July, the Secretariat introduced the document (PC23 Doc.19.1) on the definition of “artificially propagated,” calling it “a short document on a complicated subject.” Citing extensive previous PC work on the technical aspects of the definition of “artificial propagation” and “under controlled systems,” he cited the value of “stepping back” to look at the wider purpose of these definitions and the conservation impacts of any changes made to them.

Report on production systems for tree species, plantations and definition of the term “artificially propagated”: Central and South America and the Caribbean introduced the document (PC23 Doc.19.2) on production systems under source code A, for “artificially propagated.” He highlighted the questionnaire sent to parties to solicit information on production systems for CITES-listed tree species, noting that only eight parties had responded.

Europe suggested re-issuing the questionnaire given the low response rate. Oceania, supported by the US, called for taking a broader view of the history and implications of source code A in order to “reach a middle ground” on definitions. The US called for more consideration of newer production systems.

The PC established a working group with the mandate to develop and implement a workplan that will, *inter alia*: give an overview of the evolution and original intent of the term “artificial propagation” in Resolution Conf.11.11 (Rev. CoP15) to inform debate about its possible amendment; provide an overview of the relevant work to date in the PC and CoP regarding production systems; consider current production systems of tree species, including mixed and mono-specific plantations; review current production systems for artificial propagation and cultivation of non-tree plant taxa listed in the appendices; and report back to PC24, including recommendations as appropriate.

The working group met on Tuesday, 25 July, chaired by Oceania representative Greg Leach (Australia) and Asia alternate representative Joeni Setijo Rahajo (Indonesia). Several participants, including China, Georgia, Indonesia, and the US, offered brief examples of production systems that did not fit neatly into the category of either “artificially propagated” or “wild.” When asked to identify the challenges with source codes for intermediary production systems, participants highlighted: differences in interpretation of terms; the problem of including non-wild specimens under wild-sourced quotas; whether non-wild specimens in managed outdoor habitats had detrimental effects on wild populations; and the need to encourage non-wild production of some species to advance conservation goals.

The working group also recalled past discussions by the PC on its potential use of the ranching source code R, as well as current concerns in the AC about the proliferation of source codes, noting implementation challenges for border officials and loopholes for avoiding NDFs. The Secretariat advised that an intermediary source code would still require NDFs and legal acquisition findings. Participants debated the value of circulating a revised questionnaire on plant production systems and opted instead to draw on illustrative case studies.

The working group set out timelines for its intersessional work, which would include summarizing past PC discussions and decisions, gathering background information and case studies, and drafting criteria for potential options for alternative source codes for intermediary production systems.

In plenary on Thursday, 27 July, working group Co-Chair Leach introduced the group’s report, noting participants generally favored the idea of a new source code between strict artificial propagation and clear wild harvest. He suggested including reference to Resolution Conf.16.10, on the implementation of CITES for agarwood-producing taxa, in the intersessional working group’s mandate, and asked that they also explore a definition for “plantation.” Germany requested reference to working group discussions on the NDF and legal acquisition requirements for a potential new source code.

PC Chair Sinclair praised the working group for presenting a “pragmatic way forward.” The PC adopted the report with minor amendments.

Outcome: The PC recommends (PC23 Com.6), *inter alia*, soliciting case studies from parties consisting of a short summary of their current production and management systems, source of material, observed impact on wild populations, source code used, and what parties need to resolve their concerns. The PC further recommends that South Africa and the US draft a document that explores a possible new source code, keeping in mind NDF and legal acquisition requirements, and submit this information to the working group for consideration, so that a consolidated paper can be prepared for submission to PC24.

SPECIES-SPECIFIC MATTERS

AGARWOOD-PRODUCING TAXA: Implementation of Resolution Conf.16.10 on implementation of the Convention for agarwood-producing taxa: On Wednesday, 26 July, PC Chair Sinclair introduced the agenda item on agarwood-producing taxa (*Aquilaria* spp. and *Gyrinops* spp.), noting there was no associated document. Recalling past decisions and resolutions on the implementation of the Convention for agarwood-producing taxa (Resolution Conf.16.10 and Decision 16.157 (Rev. CoP17)), she reminded the PC of previous work on monitoring and implementing the resolution. She noted that trade data provided by UNEP-WCMC (annexes to PC23 Doc.15.3) indicated that the source material for agarwood-producing taxa remained wild-

sourced. Pointing to the time lag in data trends, Oceania advised continuing to monitor trade data to see if a shift was observed over time towards the use of the code for artificially propagated.

Asia updated the PC on the glossary of agarwood products created through regional workshops in her region. She suggested the Secretariat make the glossary available on its website along with identification manuals from parties. Indonesia described its progress towards a national registration process for plantations, looking forward to using source code A “in the near future.” The US urged the ongoing development of identification materials for traded elements derived from agarwood-producing taxa.

PC Chair Sinclair noted the PC would continue to monitor outcomes and consider the issue at PC24.

Report of the Secretariat: The Secretariat introduced its report on agarwood (PC23 Doc.20.2), announcing that a notification would soon be issued to parties to compile and publish information on agarwood product identification. Recalling a workshop on agarwood-producing species held in India in 2015, she called for support in identifying potential funding sources for a subsequent regional workshop. The UK suggested that importing countries be invited to the workshop. Kuwait offered funding support for additional work on identification manuals on agarwood products.

The PC noted the document.

MALAGASY EBONIES, PALISANDERS, AND ROSEWOODS: Report of Madagascar on the implementation of Decision 17.204, paragraphs a) to d): On Thursday, 27 July, Madagascar introduced the report (PC23 Doc.21.1) in plenary, thanking the Secretariat and delegates for their “renewed confidence” in his country and providing updates on progress on legal, scientific, and capacity-building activities relating to controlling illegal trade, managing wood stocks, developing identification protocols, and creating reference collections.

Applauding the “good work” of Madagascar on improving management of its forests and stockpiles, the US and Europe expressed interest in, *inter alia*, obtaining samples from the rosewood seized in Singapore in 2014. The US offered funding to undertake such work and the UK indicated its willingness to assist Madagascar with in-country curation and management of reference collections. In plenary, PC Chair Sinclair summarized the discussions, highlighting recommended actions.

Outcome: The PC recommended the Secretariat continue to liaise with Madagascar, support Madagascar in working with other countries on its reference collections, and, in consultation with Singapore, assist with obtaining sample materials from the seized rosewood.

Report of the Secretariat on the implementation of Decision 17.208: The Secretariat introduced the report, noting its comments were appended to the report from Madagascar (PC23 Doc.21.1 Annex). He explained that, following a review of progress from Madagascar, the SC maintained its recommendations, including on strengthening control and enforcement measures against illegal logging and export. He also announced plans for a September 2017 mission by the Secretariat to Madagascar.

The PC noted the information from the Secretariat.

ROSEWOOD TIMBER SPECIES: Implementation of Decision 17.234: On Monday, 24 July, Europe presented the document on implementation of Decision 17.234 on international trade in rosewood timber species (*Leguminosae (Fabaceae)*) (PC23 Doc.22.1). He clarified that a questionnaire would be sent in a notification to the parties to inform a more detailed document on this issue for PC24, allowing for discussion at CoP18.

Several delegates called for consideration of other priority rosewood species. The Environmental Investigation Agency supported a study of the status of and threats to non-listed timber species in light of a significant increase in the volume of *Pterocarpus* shipments. Mexico identified capacity needs regarding species identification, the making of NDFs, and enforcement, and called for success stories.

ForestBased Solutions suggested that *Dalbergia* and *Pterocarpus* be addressed in separate working groups, noting that their common name “rosewood” complicated the situation.

The League of American Orchestras, on behalf of several other national and international music associations, called for consideration of non-commercial cross-border movement of items, such as musical instruments transported for performances abroad.

International trade in rosewood timber species: The EU introduced the document on international trade in rosewood timber species (PC23 Doc.22.2) and a related information document (PC23 Inf.8). She noted challenges with implementing new listings for these species, in part because of unclear definitions in annotation 15, on exceptions to trade restrictions of certain parts and derivatives, including non-commercial exports up to 10 kg. Noting that preparatory work had begun for a SC working group on annotations, she invited the PC to provide views on annotation 15, including on possible amendments to facilitate implementation.

Delegates expressed divergent views on the appropriateness of discussing annotation implementation in the PC, rather than the SC. Numerous speakers commented on the challenges of annotations, including on: the urgency of resolving challenges and addressing harmonization of interpretations; administrative burdens on industry actors from CITES rules and documentation for new Appendix-II listings; and CoP17 discussions on the topic, including the trade-offs associated with different annotations.

Several participants commended the participation of private sector representatives in the meeting, highlighting the intersections between the PC and music, and one noting other industries beyond musical instruments that rely on rosewood species.

The US, as Chair of the former SC working group on annotations, agreed that a PC working group on the matter would be of value to SC discussions. With the US registering concern about “overstepping” the PC mandate, the PC agreed to convene two working groups on rosewood species. The first, chaired by PC Chair Sinclair, was tasked with, *inter alia*, addressing implementation issues surrounding interpretation of annotation 15, as outlined in PC23 Doc.22.1 and 22.2, for referral to the SC. The second, co-chaired by Isabel Camarena Osorno (Mexico), alternate representative for North America, and Paulo Carmo (Portugal), representative for Europe, considered the implementation of Decision 17.234 on international trade in rosewood species.

In the first working group’s discussions on Tuesday, 25 July, CITES Secretary-General Scanlon recalled that the number of CITES-listed tree species had increased from 18 at the initial CoP to over 900 today, highlighting the inclusion of the genus *Dalbergia* at CoP17. He welcomed the participation of the private sector in PC23, including the musical instruments industry. He highlighted a recent EU contribution of 7 million euros to support parties in complying with CITES regulations.

Extensive discussions ensued on potential amendments to annotation 15 on *Dalbergia* species. They identified several problems with the current definition of “non-commercial exports” as “cross-border movements of musical instruments

for purposes including, but not limited to, personal use, paid or unpaid performance, display (e.g. on a temporary exhibition) or competition.” One voiced concern that the return to the seller or manufacturer of a product under warranty or after-sale service might be considered a commercial export.

The Secretariat drew attention to existing options under CITES for obtaining permits for such movements. One participant called for exemptions from such permit procedures for musicians travelling with their instruments. No consensus was reached on this matter.

On shipment weight limits, participants agreed that the 10 kilograms did not concern the weight of the entire shipment, but of each individual item, and concerned only the weight of the wood of the species concerned, not the total weight of the item.

Participants debated whether to recommend an exemption for finished products, but several pointed out potential misuse of such a rule, noting that the term “finished products” is not well-defined and opens a loophole where such products may be used as raw materials.

One participant preferred drafting a separate annotation specifically for *Dalbergia*, rather than changing the existing annotation. The working group concluded that a study was needed on the species, products and trade volumes, as well as on the impact of international trade on the conservation status of these species, before making changes to the current annotation. One participant urged that end-users and stakeholders be consulted in the context of this study.

On Wednesday, 26 July, the working group reconvened to discuss the implementation of Decision 17.234 on international trade in rosewood timber species. Participants highlighted progress made in developing identification guides and building capacity in their countries, as well as the advantages of new technologies such as Near Infra-Red Spectroscopy (NIRS) and Direct Analysis in Real Time (DART) mass spectrometry. Several participants reiterated challenges discussed at CoP17 relating to making NDFs for *Dalbergia* species given the lack of information available on these species. One participant expressed concern with current practices, stating that CITES could be enabling illegal trade as many countries are issuing permits despite insufficient information. Another, however, cautioned against trade barriers.

The EU highlighted its contribution of 7 million euros towards capacity building support for trade in CITES-listed species, noting the development of selection criteria in cooperation with the Secretariat. The Secretariat clarified that a handbook will be made available to assist countries in applying for this support.

Delegates also discussed the terms of reference of a study to be undertaken by independent consultants on international trade in rosewood timber species, which will, *inter alia*: compile available data and information, and identify information gaps, on the biology, population status, management, use and trade in CITES-listed and non-listed rosewood timber species; assess the effects of trade on these species and potential benefits of CITES listing; and assess enforcement and identification challenges.

Participants emphasized that research needs on non-listed species differ from those on CITES-listed species. Many cautioned against duplication of efforts, and suggested that parties supply the Secretariat with any recent studies undertaken in their countries. One participant expressed doubt on whether the questions at hand could be answered through desktop studies, noting that field studies would require significant time and financial investment.

On Thursday, 27 July, working group Co-Chairs Osorno and Sinclair presented the working group’s recommendations. After substantial discussion, delegates agreed not to establish an intersessional working group on rosewood, but rather to invite the working group chairs to report on the discussions at PC23, both on annotation 15 and on the implications of Decision 17.234, for consideration by SC69.

The PC agreed to report on working group discussions on annotation 15 (PC23 Com.2) at SC69 and adopted the recommendations in the working group’s report on the implications of Decision 17.234 with minor amendments.

Outcome: In its recommendations (PC23 Com.10), the PC, *inter alia*, invites parties to: facilitate access to all the tools, methodologies, and materials developed related to the identification of timber species of rosewoods, taking into account the examples and initiatives developed by parties and the wider CITES community; and develop a directory of experts on identification of rosewood species, and make it available on the CITES website. The PC further invites parties to develop project proposals to generate information to develop NDFs for rosewood species, and to actively seek financing opportunities under regional and sub-regional initiatives.

On formulating NDFs, the PC invites parties to, *inter alia*: establish a feedback process between CITES authorities and stakeholders along the value chain of rosewood timber species; collaborate with other organizations and institutions to develop guidance and protocols for NDF; and map harvesting schemes for rosewood timber species within range states, and develop specific NDF protocols for each. The PC also stressed the need to discuss traceability and the implementation and interpretation of annotations related to rosewood species listed under the appendices. The PC also recommends the assessment of non-listed rosewoods, including from the genus *Cassia*, *Millettia*, *Machaerium*, *Dicornia*, *Caesalpinia* and *Swartzia*, with special consideration to species of the genus *Pterocarpus* and *Guibourtia*.

Finally, the PC recommends that these issues be revisited at PC24.

AFRICAN CHERRY: The Secretariat presented the document on African cherry (*Prunus africana*) (PC23 Doc.23) on Wednesday, 26 July, recalling three CoP17 decisions aimed towards convening an international workshop on the sustainable use and control of the species. Noting the anticipated cost of US\$100,000-120,000 for the workshop, he called for support in identifying potential funding sources.

The EU underscored that the workshop would be an opportunity for exchange between range states on species, noting the potential for financing through the EU-supported CITES work on sustainable management of tree species. She urged that the workshop be held as soon as possible, to allow PC24 to consider any resulting recommendations. Cameroon recalled a similar workshop held in Kenya, noting the value of such gatherings and highlighting the role of stakeholders in the sector in finding “sustainable and long-lasting solutions.”

The PC noted the report, and potential funding options as suggested by the EU.

AFRICAN TREE SPECIES: PC Chair Sinclair introduced the document (PC23 Doc.24) on Monday, 24 July.

The EU, supported by Cameroon, called for a prioritization of issues and avoiding duplication of work on export quotas. She noted similarities with the document on amending Resolution Conf. 10.13 (Rev. CoP15) (PC23 Doc.28) on the establishment of export quotas. Kenya cautioned against duplication of efforts on East African sandalwood.

The PC re-established the working group first initiated on this subject at PC22 in 2015, noting that it would now be co-chaired by African representative Aurélie Flore Koumba Pambo (Gabon) and alternate Beatrice Khayota (Kenya). On Wednesday, 26 July, the working group met to develop a workplan for implementing Decision 17.302 (Rev.CoP17), which concerns the terms of reference for an intersessional working group on African tree species tasked with, *inter alia*, facilitating the exchange of experiences among range states, importing countries, and others on the sustainable use and management of CITES-listed African tree species and examining the processes currently used by countries to develop annual export quotas. Other activities included exploring conversion factors used for different commodities (such as logs, sawn wood, and bark) and developing recommendations for improving such processes.

Participants stressed the importance of focusing on “specific African challenges and experiences” to avoid duplicating the efforts of other working groups, particularly the intersessional AC and PC working group on capacity building and identification. Participants agreed to draft and circulate a questionnaire seeking information from range states on: African tree species identification; implementation and enforcement; capacity building; export quotas; conversion factors; species that might benefit from listing on CITES appendices; and supplemental information. The Secretariat noted that “if all goes to plan,” a CITES Junior Professional Officer funded by Germany would support this work.

In plenary on Thursday, 27 July, working group co-chair Koumba Pambo presented the group’s report. The PC adopted the recommendations without amendment.

Outcome: The PC (PC23 Com.9) establishes an intersessional working group, co-chaired by Africa alternate representative Beatrice Khayota (Kenya), Africa representative Aurélie Flore Koumba Pambo (Gabon), and Africa representative Ali Mahamane (Niger), to carry out the mandate set out in Decision 17.302.

The PC further:

- notes the need to identify a limited number of key topics related to the implementation and enforcement of CITES listings for African tree species;
- notes that a questionnaire will be drafted and circulated to the parties, and that the inputs received will be compiled into a report for consideration at PC24;
- notes that the results of the questionnaire can be particularly useful for initiatives such as regional workshops supporting parties and relevant stakeholders to identify other African tree species that may benefit from inclusion in the CITES appendices; and
- encourages the AC/PC joint intersessional working group on capacity building to take note of the deliberations of the African tree species working group at PC23 and of the results of the questionnaire.

NEOTROPICAL TREE SPECIES: On Monday, 24 July, PC Chair Sinclair introduced the document on re-establishing the working group on neotropical tree species (PC23 Doc.25).

The working group’s previous chair, the representative for Central and South America and the Caribbean, César Beltetón (Guatemala), noted the working group would operate electronically to reduce costs and expedite information exchange. The US proposed amendments to the terms of references to ensure the working group focuses on the scientific and technical aspects of implementation in light of potential overlap with the work of the SC, especially its annotations working group. The PC

agreed to reinstate former working group Chair Beltetón as Chair and, subject to confirmation from the candidate, Fabiola Núñez (Peru) as Vice-Chair.

Outcome: With textual amendments, including emphasizing a scientific and technical focus, the PC agreed to the terms of references for the working group (PC23 Doc.25) and approved its re-establishment.

REPORT ON THE OUTCOMES OF THE INTERNATIONAL WORKSHOP ON CITES-LISTED TREE SPECIES: On Wednesday, 26 July, Guatemala introduced the report on the outcomes of an international workshop on CITES-listed tree species (PC23 Doc.26) hosted in his country in 2017, which focused on species of the genera *Dalbergia*, *Pterocarpus*, *Guibourtia*, *Adansonia*, *Bulnesia*, *Aquilaria*, and *Gyrinops*. Noting that the meeting had generated 22 conclusions and recommendations, he highlighted several on, *inter alia*: the development of manuals, guides, and other tools to foster effective implementation of NDFs; continuing collaboration between countries of origin and importing countries to improve controls and coordination; and contact with the World Customs Organization on issues related to the physical inspection of timber shipments.

Indonesia noted challenges with CITES implementation processes for *Dalbergia*, for which it is a range state but with only low levels of international trade. Several speakers underscored the value of the workshop and pointed to ongoing discussions, including at PC23, on its recommendations. Cameroon underscored the importance of ensuring the maintenance of sustainable trade.

The PC took note of the report, with PC Chair Sinclair observing the workshop conclusions and recommendations would continue to be taken up by the relevant working groups on these matters.

EAST AFRICAN SANDALWOOD: PC Chair Sinclair introduced the document (PC23 Doc.27) on Monday, 24 July.

Australia underscored the importance of work on look-alike species. For reasons of cost-effectiveness, Kenya suggested holding back-to-back training workshops, such as on making NDFs, for different African tree species including East African sandalwood (*Osyris lanceolata*). Identifying new and emerging trends, he highlighted uncertainty surrounding the origin of shipments reportedly from Australia, and suggested species identification be part of upcoming training workshops.

The working group on East African sandalwood, co-chaired by Africa representative Aurélie Flore Koumba Pambo (Gabon) and alternate representative of Africa Beatrice Khayota (Kenya), met on Tuesday, 25 July, to draft a workplan for intersessional work to implement Decisions 16.153 and 16.154 (Rev. CoP17), which call for: gathering information on the conservation status of, trade in, and use of sandalwood species and look-alike species, and assessing their impact on the conservation status of East African sandalwood; assessing the data required to make NDFs; identifying mechanisms to help build capacity to conduct NDFs for listed populations; and organizing a workshop of range states to discuss, *inter alia*, measures to combat illegal trade in the species.

The Secretariat noted that identical decisions to those at CoP17 on East African sandalwood were agreed at CoP16, yet no funding had been secured for the workshop and no work had been done by range states to review the conservation status of the species. Noting the terms of reference for the working group, he outlined two possible ways forward: one in which funding is secured for a workshop, and one in which a lack of financial resources continues to postpone the implementation of decisions.

Some participants stressed the urgency of dealing with the illegal harvest of and trade in East African sandalwood, with one noting the detrimental impacts of illegal harvest on the conservation status of this hemiparasitic species in the wild. He explained that the entire plant is uprooted during illegal harvest, meaning the host plant is uprooted as well. Observing that the Appendix-II listing of East African sandalwood was limited to certain populations, one participant said this complicates enforcement. In terms of funding a workshop, participants suggested holding it back-to-back with another forestry crime meeting, such as an upcoming CITES Task Force gathering on illegal trade in CITES-listed tree species. Others suggested seeking funding from industry, given companies with sandalwood plantations are “very concerned” about illegal trade.

On Thursday, 27 July, working group Co-Chair Pambo introduced the working group report in plenary. The PC adopted the report, with the draft workplan included as an annex.

Outcome: The PC (PC23 Com.4) establishes an intersessional working group on East African sandalwood to address the draft workplan and explore different options for funding the consultative meeting called for in Decision 16.154 (Rev. CoP17). The PC recommends: creating a network of focal points from species’ range states (particularly those already subject to the CITES listing of this species); establishing collaborative networks with importing countries and companies; and requesting the Secretariat to encourage parties to submit the annual illegal trade report for the species to better understand the scope of illegal trade.

POSSIBLE AMENDMENTS TO RESOLUTION CONF. 10.13 (REV. COP15) ON IMPLEMENTATION OF THE CONVENTION FOR TIMBER SPECIES: The Secretariat introduced the document (PC23 Doc.28) on Wednesday, 26 July, noting that it reflected discussions held at PC22.

Delegates agreed to a recommendation on changing “timber species” to “tree species.” They further recommended that the intersessional working group on artificial propagation address the definition of “plantations,” and suggested strengthening existing structures for consultation with ITTO, FAO, and IUCN rather than establishing a new expert panel. Consultation with relevant industry representatives was also suggested.

PC Chair Sinclair invited discussion on whether the PC should adopt NDF processes at the genus level for trees, similar to those of the AC for corals. Participants expressed doubt about the proposal. The US cautioned that the AC had long deliberations on the species for which such an approach was appropriate, calling for “careful deliberative thought.” France suggested allowing genus-level permits and certificates for pre-Convention specimens, and the US recalled that such situations are already addressed under Resolution Conf.12.3 (Rev. CoP15). The PC noted the need for further discussion on the matter.

On the establishment of voluntary annual national export quotas for timber species, delegates highlighted the need for “appropriate, science-based” conversion factors between roundwood and sawn wood volumes for individual species, noting that such conversion is a key element in NDFs for timber species.

The Secretariat said it would amend the document based on these suggestions, also taking into account the potential outcomes from intersessional working groups, and that the issue would be discussed again at PC24.

The PC noted the document with the suggested amendments.

MAINTENANCE OF THE APPENDICES

PERIODIC REVIEW OF THE APPENDICES: Overview of species under periodic review: On Monday, 24 July, the Secretariat introduced the overview of species under periodic review (PC23 Doc.29.1), outlining the status of species identified under previous review cycles.

Delegates debated whether the Secretariat needed to keep the conservation status and distribution data up-to-date in the tables on periodic reviews in the annexes of the document. The US agreed with the Secretariat that such information was for the historical record and thus updating work was not necessary.

The Secretariat noted that an online database for species would facilitate periodic reviews and access to data, although acknowledged that resources for such work were not currently available. The US and Mexico supported the development of such a database, with Mexico reinforcing the Secretariat’s suggestion that it could be linked to the RST database.

On how and when species are chosen for periodic review, the Secretariat clarified that the guidance on this matter had been “comprehensively revised” and would be discussed under a separate document on selecting species for review (PC23 Doc.29.2).

The PC noted the document with corrections and with suggestions on the database.

Selection of species for the periodic review: The Secretariat introduced the document (PC23 Doc.29.2), highlighting that the following may merit consideration: taxa identified as not in trade or minimally traded over the period 2006-2015, with a view to revising their inclusion in the appendices; and Appendix I-listed taxa whose populations are in international trade for commercial purposes, especially at relatively high volumes, since these transactions are potentially in contravention of CITES provisions.

UNEP-WCMC described three outputs prepared to assist the PC in prioritizing species for review, noting that a total of 31 taxa had been selected in at least one of these three outputs.

PC Chair Sinclair noted that a working group on this issue would be established in concert with, and after consideration of, the periodic review of the ginger lily (*Hedychium philippinense*).

Periodic Review of *Hedychium philippinense*: PC Chair introduced the document (PC23 Doc.29.3), noting it contained an initial draft of a periodic review of *Hedychium philippinense* undertaken by the Philippines.

The PC established a working group on periodic review, chaired by alternate representative of North America Isabel Camarena Osorno (Mexico), to review PC23 Doc.29.3 and make recommendations regarding the listing in the appendices of *Hedychium philippinense*, as well as consider PC23 Doc.29.2 to: identify a list of plant taxa to review during the two intersessional periods between CoP17 and CoP19; consider possible funding to continue with periodic review, with reference to paragraphs 5 and 6 in AC29 Com.7 (Rev.1); and agree on ways to facilitate the periodic reviews.

The working group met on Tuesday, 25 July, and selected seven plant species as candidates for review, and decided to refer to the Secretariat and SC all Appendix I-listed plant taxa for which wild trade was reported only by exporting countries, noting this could possibly be a reporting error. Some recently reviewed species were eliminated from consideration, and participants asked UNEP-WCMC to flag species recently subjected to periodic review in their future reports.

The working group updated and revised relevant text from AC29 Com.7 (Rev.1) on funding and facilitating periodic reviews, and considered the initial draft by the Philippines of a periodic

review of *Hedychium philippinense*, encouraging the range state to continue compiling information for its periodic review and provide an update to PC24.

In plenary on Thursday, 27 July, working group Chair Osorno introduced the outcomes of the group's discussions. The PC adopted the recommendations.

Outcome: The PC (PC23 Com.1) recommends the following seven species as candidates for potential review, with several range states volunteering to conduct reviews, as noted:

- False peyote (*Ariocarpus retusus*) from Mexico, to be conducted by Mexico;
- Bamboo cycad (*Ceratozamia hildae*) from Mexico, to be conducted by Mexico;
- Runde cycad (*Encephalartos concinnus*) from Zimbabwe, to be conducted by Zimbabwe;
- Gorongowe cycad (*Encephalartos manikensis*) from Mozambique and Zimbabwe; to be conducted by Zimbabwe;
- Few-spined Turk's-cap cactus (*Melocactus paucispinus*) from Brazil;
- Guatemalan fir (*Abies guatemalensis*) from Guatemala, Honduras, Mexico, and El Salvador; and
- Costus (*Caryocar costaricense*) from Colombia, Costa Rica, Panama, and Venezuela.

The PC referred the table on Appendix I-listed plant taxa traded from wild sources for commercial purposes over the period 2006-2015 to the Secretariat and SC. The recommendations also included a list of possible funding sources to continue with the periodic review and strategies to facilitate periodic reviews. On funding and facilitating periodic reviews, recommendations included, among others, requests for the Secretariat to seek external funding to support range states for conducting the reviews and seeking linkages between periodic review and other CITES-funded initiatives, such as capacity building.

STANDARD NOMENCLATURE: Report of the specialist on botanical nomenclature: PC Nomenclature Specialist McGough presented the report on botanical nomenclature (PC23 Doc.31.1), inviting the PC, among other things, to provide feedback on the use of newly adopted checklists and on databases they find useful as resources; and prioritize species (including tree species) for the preparation and production of new standard checklists and consider possible sources of funding.

Change of taxonomic nomenclature of *Caesalpinia echinata* and its potential implications for trade data and control: Brazil presented the document (PC23 Doc.31.2) on Pernambuco tree or Pau-brasil (*Caesalpinia echinata*), a species of Brazilwood, noting the need for a mechanism to update the nomenclature of species listed in CITES appendices in cases where new nomenclature has not yet been approved by the CoP.

The PC established a working group, chaired by PC Nomenclature Specialist McGough, which addressed nomenclature issues in PC23 Doc.31.1 and 31.2.

On Thursday, 27 July, in plenary, McGough presented the working group's report.

Central and South America and the Caribbean questioned listing *Paubrasilia echinata* as a synonym of *Caesalpinia echinata* in Species+. McGough clarified that this was a short-term measure until *Paubrasilia echinata* could be formally adopted at CoP18, and requested that UNEP-WCMC note in Species+ system that this is an interim measure.

The PC adopted the report's recommendations.

Outcome: The PC (PC23 Com.3) recommends, *inter alia*:

- encouraging parties and relevant institutions to provide financial support for preparing online updates of the CITES orchid checklists;

- continuing to review options with regard to updating the standard reference for the generic names of all plants listed in the appendices;
- confirming that *Pachypodium enigmaticum* be treated as an accepted species name but should be fully reviewed when the *Pachypodium* checklist is updated;
- that *Paubrasilia echinata* be included, in the short term, as a synonym of *Caesalpinia echinata* in Species+ (until *Paubrasilia echinata* is formally adopted as the accepted name by CoP18);
- that the PC Nomenclature Specialist, in cooperation with the CITES Secretariat, review and update current weblinks for CITES standard references for flora and consider how to make them easily accessible to parties; and
- that PC24 further consider the feasibility of adopting a mechanism to update the nomenclature of species when revised during intersessional periods and not yet proposed nor approved by the CoP.

ANNOTATIONS FOR APPENDIX-II ORCHIDS: On Monday, 24 July, Switzerland presented the relevant document (PC23 Doc.32), noting that the Swiss management authority had commissioned several in-depth case studies and overviews. He highlighted an increasing level of cooperation with the cosmetics and personal care products industry.

The PC re-established the working group, earlier established at PC22, which met Wednesday morning, 26 July, chaired by alternate representative for Europe, Ursula Moser (Switzerland), to develop its workplan for the intersessional period. Participants considered the results to date from a Swiss-funded study of case studies and overviews of selected key orchid species in international commerce (PC23 Doc.32 Annex 2), with, *inter alia*, in-depth case studies on three species of *Vanda* along with *Cypripedium parviflorum* var. *pubescens* and *Gastrodia elata*.

Noting that orchids are a "uniquely heterogeneous family," participants discussed the complexity of value chains that involve orchids and the challenges in tracing supply chains. Several underscored the importance and challenge of engaging industry stakeholders in this work. Participants considered focusing their efforts on cosmetics and personal care products, but in light of the working group's mandate and the conservation concerns associated with nutritional and medicinal uses of orchids, agreed to maintain a broader scope of work.

Discussions also addressed, among other things: problems with the definition of "derivative," noting that some finished products are listed as derivatives; the conservation impacts of distinctions between wild-sourced versus artificially propagated orchids; the need to review annotations; potential exemptions for finished products; and the clarification of permitting processes for orchid products.

In planning its subsequent work, the working group deliberated on: knowledge gaps; the scope, content, timelines, and responsibilities for compiling outcomes of the proposed questionnaire; how to inform the SC of progress and liaise with the anticipated SC working group on annotations; and plans for additional case studies.

In plenary on Thursday, 27 July, working group Chair Moser introduced the report. The PC adopted the recommendation on the workplan for the intersessional working group on annotations for Appendix-II orchids.

Outcome: The PC (PC23 Com.8) recommends the intersessional working group conduct, among other things, the following tasks: draft a questionnaire outlining the knowledge gaps discussed at PC23; encourage liaison with the SC Working

Group on Annotations, should it be re-established; undertake additional case studies on key orchid species as needed, depending on responses to the questionnaire; and report to PC24.

REGIONAL MATTERS

In plenary on Wednesday, 26 July, regional representatives presented their respective reports, highlighting progress and challenges in their regions (PC23 Doc.34.1-34.6). Several lamented the low level of response received from parties. PC Chair Sinclair said the Secretariat would consider ways to assist countries in submitting their reports, with one delegate noting that national reporting was not an optional activity under CITES. The PC took note of the regional reports, which will be available on the CITES website.

TIME AND VENUE OF AC30 AND PC24 AND JOINT MEETING

In plenary on Thursday, 27 July, the Secretariat noted that back-to-back AC and PC meetings, including a joint session, are provisionally scheduled from 16-27 July 2018 in Geneva, Switzerland.

CLOSING PLENARY

In plenary on Thursday, 27 July, the PC adopted the executive summaries of the meeting (PC23 Sum.1-3), with the Secretariat noting a more comprehensive summary of the AC, PC, and joint meetings would be made available in the months to come. In the closing session, PC Chair Sinclair lauded participants for a collaborative meeting, underscoring the shared goals of ensuring the conservation and sustainable use of wildlife. She said the meeting had achieved “tangible results to advance or even resolve key issues,” adding that CITES implementation is enhanced through cooperation. She also highlighted the participation in PC23 of industry, and looking to the start of the PC’s intersessional work, commented that “the best is yet to come.”

Oceania thanked PC Chair Sinclair for her leadership, noting it had resulted in discussions that proceeded “smoothly” and “uncontentiously.”

PC Chair Sinclair closed the meeting at 4:54 pm.

A BRIEF ANALYSIS OF THE CITES SCIENTIFIC COMMITTEES MEETINGS

If Swiss clocks are renowned for their efficiency, CITES meetings are rapidly gaining a reputation for the same. Following on the heels of the “gamechanger” CoP17 in Johannesburg, which finished a day early despite an agenda as ambitious as it was packed, the back-to-back and joint meetings of the Convention’s scientific committees—the 29th meeting of the Animals Committee and 23rd meeting of the Plants Committee—were a study in collegiality and effectiveness. The meetings gathered over 500 participants to begin work on the decisions and resolutions that emerged from CoP17, and continue reviewing and revising the CITES appendices. Such a daunting work programme could easily have slowed proceedings. But as CITES Secretary-General John Scanlon observed, “the bigger the CITES agenda, the more participants, the faster we are.”

Given recent significant changes in Secretariat staff roles, and new chairs for both the Animals and Plants Committees, along with challenging technical matters under consideration, smooth proceedings were not a guarantee in Geneva. Indeed, much substantive work was deferred to intersessional working groups or to the Standing Committee for further study. Some of this work concerned issues that could not be resolved at the meetings, including a longstanding deadlock on a definition of “country of

origin” for caviar and on shared stocks of sturgeon, and ongoing disagreement on how to situate rosewood timber species within CITES in light of their many genera, the Appendix II-listing of *Dalbergia*, and the varying conservation needs of different rosewoods.

Even so, procedural and substantive challenges were few and far in between, thanks to meticulous preparation from the Secretariat and AC and PC members alike. The scientific committees placed reviews of the appendices and non-detriment findings at the core of their agendas, with substantial time dedicated to these issues at both AC29 and PC23. Throughout their four-day individual and one-day joint meetings, delegates were charged with not only applying new administrative processes to their work, such as streamlined periodic review and Review of Significant Trade processes, but also piloting new and complex technical matters, most notably a review of captive breeding.

This analysis reflects on progress made on streamlining CITES reviews and tackling complex new issues and technologies under consideration by the AC and PC, particularly captive breeding and bioengineered DNA. It also highlights several unresolved challenges, including issues of traceability, data deficiencies and non-detriment findings and, centrally, the value of CITES listings for species conservation, all with a view to the upcoming sixty-ninth SC meeting in Geneva in December 2017.

TICKING RIGHT ALONG: STREAMLINING OLD AND LAUNCHING NEW CITES REVIEW PROCESSES

The gears at the core of CITES are the review processes—particularly the periodic review of whether species’ listings remain appropriate and RST—that strive to keep the appendices trim and relevant. The AC and PC both implemented a “streamlined” selection process for species under the RST, which provides, among other things, criteria to quickly identify potential species-country combinations of concern. The revised process, approved at CoP17, was widely lauded as facilitating the work of the committees as well as improving their efficiency and transparency.

The AC also piloted the first iteration of the review of captive breeding, another outcome of a CoP17 decision. Delegates were cautiously optimistic about the launch of this new process, which seeks, among other things, to resolve concerns about the misapplication of source codes that differentiate specimens from production systems involving animals in captivity. Many lauded its “promising” start at AC29, with the review described by several as “credible,” leading to a list of selected species-country combinations with diversity in terms of taxa, regions, source codes, and listing criteria. Still, others maintained a wait-and-see attitude about its outcomes. Some highlighted areas for improvement, especially to the questions to be asked of selected parties, and looked forward to assessing the outcomes of the process to revise future iterations.

The discussions on RST, as well as broader debates in plenary and other working groups, underscored a shift that has been occurring within CITES for several years. One delegate observed the transformation of CITES listings from “being seen as a punishment to being seen as an opportunity.” Other participants echoed this view, pointing to listings and reviews as chances for countries to secure financial and technical assistance for conservation activities, raise their profile in the international community on progress made in conservation and sustainable development, and develop cooperative measures across range states and between importing and exporting countries.

Such perspectives seemed validated by the agreement of several parties to their selection as part of the RST and periodic reviews, including the Democratic Republic of Congo and Cameroon for African teak. The confirmation by range states of the appropriateness of maintaining Appendix listings for some species, such as Chile on the *Chinchilla*, was further evidence that CITES listings are not seen as a stigma to avoid, but an opportunity to embrace. Such attitudes among parties will prove crucial to the successful implementation of CITES, particularly as the Convention confronts the new and daunting complexities—but also opportunities—associated with technological advances, as the next section will explore.

BY PUTTING FORWARD THE HANDS OF THE CLOCK YOU SHALL NOT ADVANCE THE HOUR: NEW TECHNOLOGIES AND THE FUTURE OF CITES

“If it walks like a duck, and quacks like a duck, it’s a duck,” claimed one delegate in discussions about CITES-listed specimens or their derivatives produced from synthetic or cultured DNA. With his analogy, the delegate suggested that distinguishing between bioengineered versus “natural” organisms and their derivatives was irrelevant to CITES, claiming “it would have no impact on trade.” Other participants begged to differ. As many observed, no one can predict the conservation or trade implications of such novel technologies. Is a duck always a duck, regardless of the provenance of its DNA? Does synthetic rhino horn perpetuate or help ease the demand for wild rhino products? What is the impact of artificially propagated orchids on CITES-listed wild populations of the same flowers, not just in terms of trade, but also if cultivated specimens make their way into wild populations? The answers to these questions are as unclear as they are critical for the Convention. “Welcome to the future of CITES,” the Secretariat wryly observed when introducing the document on synthetic and cultured DNA.

Although new technologies can pose challenges for the implementation of CITES, in terms of trade and conservation implications and complicating the ability of customs officials to distinguish between wild and artificially propagated or synthetic specimens, they can also offer solutions. Throughout discussions in the AC and PC, delegates repeatedly highlighted useful advances in technology for traceability, ranging from machine learning for distinguishing among shark fins to mass spectroscopy for chemical timber identification. These digital tracking and tracing tools promise to advance possibilities for species identification and reduce the challenges faced by customs officials.

Overall, delegates agreed that new technologies, if carefully assessed and properly used, can indeed help advance CITES goals, particularly in the realm of traceability. The challenge is translating advances in the laboratory to real situations in the field, especially for customs officials, implementation authorities, and local communities in countries with limited resources and low capacity. As writer Victor Hugo observed, one cannot change the time by simply moving a clock’s hands; similarly, technological advances, no matter how sophisticated, are no substitute for long-term capacity building. One delegate further cautioned that while such measures are useful in mapping legal trade patterns and volumes, “traceability is no silver bullet when it comes to combating illegal trade.” For that matter, CITES listings themselves are no silver bullet when it comes to protecting endangered species of flora and fauna from the detrimental impacts of trade.

THE RIGHT OR WRONG TIME FOR LISTING? BENEFITS AND DRAWBACKS OF INCLUSION ON CITES APPENDICES

“One luminary clock against the sky,” as US poet Robert Frost wrote, “proclaimed the time was neither wrong nor right.” Determining whether the time is right or wrong for CITES listings is the crucial work of the CITES scientific committees, but underlying the detailed technical debates of the AC and PC meetings was a more fundamental question about the value of appendix listings for the conservation status of threatened species. With listings intended to ensure that international trade is non-detrimental to species survival, some questioned whether some resulting trade restrictions might in fact be counterproductive. While these are not new discussions under CITES, the issue took additional urgency at these scientific meetings in light of numerous new listings, new technologies, and growing pressures on biodiversity and ecosystems.

In some cases, participants speculated that the limits placed on trade remove incentives for local conservation, suggesting instead that minimal trade is better than no trade for some highly threatened species, including Banggai cardinalfish from Indonesia. The issue of livelihoods was largely deferred to the SC, with expectations that a working group will be convened at SC69, but certain delegates nonetheless pressed for consideration of it within AC and PC discussions. Some reiterated that the AC and PC should focus exclusively on the scientific aspects of conservation, leaving livelihoods to the SC and CoP. Still others viewed the issues as inseparable in light of the tight relationship between economic pressures and illegal trade: when people face poverty, poaching wild fauna and flora offers a way out.

Participants also debated the merits of ongoing trade for species where data deficiencies compromise the ability of parties to conduct robust and comprehensive RSTs and NDFs. One PC delegate, in the discussions on *Dalbergia* rosewood, stated bluntly that the Convention may be “sleepwalking into effective laundering of timber under CITES permits,” where countries issue permits on a “massive scale” despite a lack of information on the impacts of such trade. Some underscored the need for a precautionary approach, where trade is halted when species data or trade impacts are unknown or incomplete. However, others cautioned that halting trade can hinder the ability of parties to gather data, such as in the case of snakes and sharks. It might unnecessarily harm livelihoods, and drive trade into black markets.

Not only listings on Appendices I and II, which prohibit or strictly control trade, come with unintended consequences for the welfare of CITES species. Appendix III contains species that are protected in at least one country, which has requested the assistance of other CITES parties in controlling trade. Familiarity with the implications of listings on Appendix III is so limited among customs authorities, and even CITES parties, that Europe dubbed it “the forgotten appendix.” One observer said that this general misunderstanding of the implications of Appendix-III listing, especially with respect to the use of permits and certificates, “hurts trade, hurts animals, and hurts the reputation of CITES.” He cited incidents of shipments of live ornamental fish being unnecessarily delayed at ports where officials are unfamiliar with Appendix III, with serious implications for animal welfare, including high mortality.

NO TIME TO WASTE: URGENT NEEDS AND EXPANDING AGENDAS

Given the urgent need for biodiversity conservation, and the realities of limited resources, complex and emerging issues, and countless tasks faced by CITES and its parties, the meetings of the AC and PC underscored the importance of ongoing technical and scientific expertise in implementing the ambitious goals of the Convention. If the successes of CoP17 marked the turning of the tide in favor of threatened wildlife, as Secretary-General John Scanlon noted, the successes of AC and PC meetings also highlighted the continued challenges of finance and capacity faced by CITES and its technical bodies, whose work is underpinned by voluntary contributions from both individuals and parties.

With the AC, PC and Secretariat asked to do ever-increasing tasks as the number of species on the CITES appendices increase—from producing lengthy reports and detailed reviews to organizing expert workshops and technological assessments—calls were heard throughout the meetings for the prioritization of issues. Delegates urged avoiding duplication of efforts—both within CITES, and across MEAs and international organizations. In multiple working groups and in plenary, delegates recalled the technical and regulatory work being done by other organizations, from work on sharks and corals by regional fisheries management organizations to timber identification reference databases from the Global Timber Tracking Network. Recent significant advances in cooperative relationships between CITES and other bodies were noted, particularly the UN Food and Agriculture Organization and the International Tropical Timber Organization.

Many discussions also yielded calls for more active cooperation and collaboration with industry. In discussions on East African sandalwood, one observer encouraged range states to seek funding for workshops, among other activities, from companies with sandalwood plantations, noting this industry is “very concerned” about illegal trade. Also at the PC meeting, Secretary-General Scanlon welcomed the input of the musical instruments industry. Noting that certain plant listings can impact the non-commercial cross-border movement of musical instruments, the League of American Orchestras urged for “balancing urgent conservation needs” with “essential international cultural activities.” The presence of industry not just at CITES CoPs, but also at scientific and technical committee meetings, means the Convention can better anticipate—and potentially avoid—the unintended consequences of certain listings.

Overall, participants left the AC, PC, and joint meetings with high spirits thanks to the congenial and productive atmosphere. With numerous issues of enforcement, compliance, and implementation deferred to the SC, many delegates anticipated a more challenging meeting at the upcoming SC69, where one NGO suggested “the fur will really fly.” In the meantime, CITES scientific committee participants will begin tackling intersessional working group tasks, recognizing that when it comes to the conservation of wild and endangered species, there’s no time like the present.

UPCOMING MEETINGS

Fourth International Marine Protected Areas Congress (IMPAC4): IMPAC4 is an international conference with participants from multidisciplinary backgrounds discussing recent activities and trends in marine protected area (MPA) management and science including, among other issues, management tools, conservation biology, ecology, fisheries, climate

change, monitoring, enforcement, community development, communications, education and business administration. **dates:** 4-8 September 2017 **location:** La Serena, Chile **contact:** Congress Secretariat **phone:** +56-2-25735600 **email:** impac4@mma.gob.cl **www:** <http://www.impac4.cl>

CMS COP 12: The twelfth meeting of the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS COP12) together with the associated meetings of the Standing Committee will be held in 2017. **dates:** 22-28 October 2017 **location:** Manila, Philippines **contact:** CMS Secretariat **phone:** +49-228-815-2401 **fax:** +49-228-815-2449 **email:** cms.secretariat@cms.int **www:** <http://www.cms.int/cop12>

CITES SC69: The CITES Standing Committee will convene for its sixty-ninth meeting. **dates:** 27 November - 1 December 2017 **location:** Geneva, Switzerland **contact:** CITES Secretariat **phone:** +41-22-917-81-39/40 **fax:** +41-22-797-34-17 **email:** info@cites.org **www:** <https://cites.org/eng/com/sc/index.php>

ITTC-53: The next session of the International Tropical Timber Council and associated sessions of the four committees will take place in Peru. **dates:** 27 November – 2 December 2017 **location:** Lima, Peru **contact:** International Tropical Timber Organization Secretariat **phone:** +81-45-223-1110 **fax:** +81-45-223-1111 **email:** itto@itto.int **www:** <http://www.itto.int>

UNEA-3: The third meeting of the UN Environment Assembly (UNEA 3) will be held, on an exceptional basis, from 4-6 December 2017, with the high-level segment taking place on 5-6 December, and the Open-Ended Committee of Permanent Representatives from 29 November to 1 December. **dates:** 4-6 December 2017 **location:** Nairobi, Kenya **contact:** Jorge Laguna-Celis, Secretary of Governing Bodies **phone:** +254-20-7623431 **email:** unep.sgb@unep.org **www:** <http://www.unep.org/environmentassembly/>

CBD SBSTTA-21 and Article 8(j) Working Group-10: The Convention on Biological Diversity (CBD) Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) will address, *inter alia*, the links between the Aichi Biodiversity Targets and the SDGs, biodiversity and health, and biodiversity mainstreaming in the energy, mining and infrastructure sectors. The tenth meeting of the CBD *Ad Hoc* Open-ended Working Group on Article 8(j) and Related Provisions will meet in parallel to SBSTTA-21. **dates:** 11-16 December 2017 **location:** Montreal, Quebec, Canada **contact:** CBD Secretariat **phone:** +1-514-288-2220 **fax:** +1-514-288-6588 **email:** secretariat@cbd.int **www:** <https://www.cbd.int/meetings/>

IPBES-6: The sixth session of the IPBES Plenary will consider for approval four regional assessments of biodiversity and ecosystem services and the thematic assessment on land degradation and restoration. The plenary is also expected to conduct regular elections of the Multi-Disciplinary Expert Panel and consider the review of effectiveness of the Platform. **dates:** 18-24 March 2018 **location:** Medellin, Colombia **contact:** IPBES Secretariat **phone:** +49-228-815-0570 **email:** secretariat@ipbes.net **www:** www.ipbes.net/

4th World Conference on Marine Biodiversity: This meeting will bring together scientists, practitioners, and policy makers to discuss and advance understanding of: climate change impacts on marine biodiversity; cumulative impacts of human activities on marine biodiversity; marine ecosystem safety; role of systematics in understanding ocean change; bioinformatics and data delivery; analytical approaches in marine biodiversity science; integrative frameworks for linking environmental and biological drivers of biodiversity; linking biodiversity to ecosystem function and services; blue biotechnology and marine genetic resources;

marine policy and law; marine biodiversity and human health; marine biodiversity education and outreach; and strategies for conservation of marine biodiversity. **dates:** 13-16 May 2018 **location:** Montreal, Quebec, Canada **contact:** 4th WCMB Congress Secretariat **phone:** +1-514-287-9898 ext. 334 **fax:** +1-514-287-1248 **email:** wcmb2018secretariat@jpd.com **www:** <http://www.wcmb2018.org/>

IMCC5: The Society for Conservation Biology's 5th International Marine Conservation Congress will bring together conservation professionals and students to develop new and powerful tools to further marine conservation science and policy. **dates:** 24-29 June 2018 **location:** Sarawak, Malaysia **contact:** IMCC5 Organizers **email:** <http://conbio.org/mini-sites/imcc5/about/contact-us/> **www:** <http://conbio.org/mini-sites/imcc5/>

CBD SBSTTA-22: The twenty-second meeting of the CBD SBSTTA will address, *inter alia*: protected areas, marine and coastal biodiversity, biodiversity and climate change, and digital sequence information on genetic resources. **dates:** 2-7 July 2018 **location:** Montreal, Quebec, Canada **contact:** CBD Secretariat **phone:** +1-514-288-2220 **fax:** +1-514-288-6588 **email:** secretariat@cbd.int **www:** <https://www.cbd.int/meetings/>

CBD SBI-2: The CBD Subsidiary Body on Implementation will address: review of the effectiveness of the Nagoya Protocol, the global multilateral benefit-sharing mechanism under the Protocol, and specialized international access and benefit-sharing mechanisms in light of Nagoya Protocol Article 10. **dates:** 9-13 July 2018 **location:** Montreal, Quebec, Canada **contact:** CBD Secretariat **phone:** +1-514-288-2220 **fax:** +1-514-288-6588 **email:** secretariat@cbd.int **www:** <https://www.cbd.int/doc/?meeting=5691>

CITES AC30, PC24, and joint AC-PC: The thirtieth meeting of the Animals Committee and the twenty-fourth meeting of the Plants Committee will meet for their separate meetings as well as a joint session. **dates:** 16-27 July 2018 **location:** Geneva, Switzerland (tbc) **contact:** CITES Secretariat **phone:** +41-22-917-81-39/40 **fax:** +41-22-797-34-17 **email:** info@cites.org **www:** <https://cites.org/eng/com/ac/index.php> and <https://cites.org/eng/com/pc/index.php>

CITES SC70: The seventieth meeting of the CITES Standing Committee will take place in Sochi, Russia. **dates:** October 2018 (to be confirmed) **location:** Sochi, Russia **contact:** CITES Secretariat **phone:** +41-22-917-81-39/40 **fax:** +41-22-797-34-17 **email:** info@cites.org **www:** <https://cites.org/eng/com/sc/index.php>

2nd Arctic Biodiversity Congress: The second Arctic Biodiversity Congress builds on the outcomes of the first Congress, held in Trondheim, Norway, in 2014, with the aims, among other things, of: assessing the Arctic in the context of the CBD Strategic Plan for Biodiversity 2011-2020, the Aichi Biodiversity Targets, and the SDGs; and facilitating interdisciplinary discussion, action, and status updates on the Arctic Biodiversity Assessment recommendations and implementation actions. **dates:** 9-11 October 2018 **location:** Rovaniemi, Finland **contact:** CAFF International Secretariat **phone:** +354- 462-3350 **email:** caff@caff.is **www:** www.arcticbiodiversity.is/congress

CBD COP14: The fourteenth meeting of the Conference of the Parties to the Convention on Biological Diversity is anticipated to be held in November 2018 in Egypt. **dates:** 10-22 November 2018 (to be confirmed) **location:** Sharm El-Sheikh, Egypt (to be confirmed) **contact:** CBD Secretariat **email:** secretariat@cbd.int **www:** www.cbd.int/meetings/

London Conference on Illegal Wildlife Trade: The United Kingdom offered to host a fourth High Level meeting on illegal wildlife trade in London in 2018. **dates:** 2018 (to be determined) **location:** London, United Kingdom **contact:** Government of the UK **www:** www.gov.uk/government/news/leadsom-uk-leading-global-fight-against-illegal-wildlife-trade

CITES CoP18: CITES CoP18 will be held in Sri Lanka. **dates:** 2019 **location:** Sri Lanka **contact:** CITES Secretariat **phone:** +41-22-917-81-39/40 **fax:** +41-22-797-34-17 **email:** info@cites.org **www:** <https://cites.org/eng/disc/cop.php>
For additional upcoming events, see <http://sdg.iisd.org/>

GLOSSARY

AC	CITES Animals Committee
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CoP	Conference of the Parties
DRC	Democratic Republic of the Congo
FAO	Food and Agriculture Organization of the UN
GTTN	Global Timber Tracking Network
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature
Lao PDR	Lao People's Democratic Republic
NDF	Non-detriment finding
PC	CITES Plants Committee
RFMO	Regional fisheries management organization
RST	Review of Significant Trade
SC	CITES Standing Committee
SDGs	Sustainable Development Goals
UNEP-WCMC	UN Environment Programme's World Conservation Monitoring Centre