the ABS clearing-house was created. In the Annex, the goals include population and its increased use, translation, and functionality for its operationalization in the UN languages and maintenance and improvement of functionality and integration with the clearing-house mechanism.

As discussed above the issue of digital sequence information on genetic resources was considered by the COP-14 and by the COP-MOP 3, and each adopted a decision: COP Decision 14/20 and COP-MOP Decision NP-3/12. An open ended inter-sessional working group was requested to submit the outcome of the deliberations as per Decision NP-3/12. During February 2019, the submission of views and information were invited further to Decision NP-3/13 on Article 10 and Decision NP-3/14 on Article 4(4) of the Nagoya Protocol.

The Ad Hoc Technical Expert Group on digital sequence met in March in Montreal and considered the views and submissions on the concept and scope, studies on traceability and database, and domestic measures in relation to digital sequence information. The report of this group will be made available for consideration by the open ended working group on the post-2020 Global Biodiversity Framework at its third meeting. In April, the third meeting of the Compliance Committee under the Nagoya Protocol met online and reviewed the status of the submissions of the interim national reports, rate of compliance regarding the designation of national focal points, competent national authorities and check points for monitoring the utilization of genetic resources. As noted earlier, in November, the first extraordinary meeting of the COP serving as the MOP on the Nagoya Protocol following the written silence procedure adopted the interim budget for the work program for 2021.

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C. Convention on the Conservation of Migratory Species of Wild Animals (CMS)

This year was highly significant for the CMS, as another triennium of activity concluded with the thirteenth Conference of the Parties (COP-13) convened at Gandhinagar, India, in February. Following the COP, the CMS welcomed two new parties—the Central African Republic (1 September) and Turkmenistan (31 December)—both of which are significant range states for an array of migratory species, thus expanding the membership of the Convention to a total of 132 parties. Significantly, from the technical perspective of treaty participation, the Central African Republic had previously constituted one of only two outstanding signatories to the CMS that had yet to ratify the Convention, now leaving Jamaica as its sole signatory.

COP-13 resulted in a considerable volume of resolutions on an array of matters affecting the conservation status of migratory species. Following the revised format of the CMS, which now follows the administrative policies of other wildlife treaties like the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), a substantial

number of prior resolutions were updated, retaining their original numeration from previous COPs. Beyond the customary administrative and financial formalities (Resolution 13.2), considerable attention was paid to the listing requirements of the CMS (Resolution 13.7), which demarcates those species that are to assigned to the Convention's Appendices and are thus identified as requirement prioritization in addressing their conservation needs. Important adjustments to the CMS listing practice include a formal recognition of the desirability of alignment with the protective lists operated by other wildlife treaties—especially CITES, with which the CMS has arguably been most closely affiliated through joint work programs—and the species identified by regional fisheries management organizations as being most vulnerable to by-catches. Most significantly, continuing the work of the previous COP, a number of key terms within the Convention text were subject to additional interpretive guidance. The notion of migratory behaviour—currently understood as applying to a species that 'cyclically and predictably' crosses national boundaries—was clarified further, so that the level of predictability of species movement was softened, in that it may be 'anticipated to recur in a given set of circumstances, though not necessarily regularly in time.' This largely reflects previous deliberations of the CMS parties over the impacts of climate change on species behaviour and the need to ensure that the Convention is definitionally flexible in order to recognize that environmental changes are having unpredictable effects upon the movements of particular species. The concept of 'endangered' was also clarified as meaning the prospect of 'facing a very high risk of extinction in the wild in the near future.' The Resolution also adopted a more inclusive approach to geographically separate populations of protected species and elaborated on new guidelines on proposed amendments to the Convention's Appendices, while the parties also clarified approaches to reservations to species listing in a separate Resolution (Resolution 13.8).

As is now customary practice at the COPs, the parties adopted a particular resolution setting the tone and priorities for the work of the Convention in the coming triennium, through the Gandhinagar Declaration on CMS and the Post-2020 Global Biodiversity Framework (Resolution 13.1). Here, the parties recognized the impacts of climate change on biodiversity and its role in amplifying pre-existing conservation threats to particular species. The parties also affirmed their commitment to maintaining and restoring ecological connectivity as a particular priority for migratory species conservation; called for migratory species and habitat connectivity to be expressly considered in the development of national action plans; recommended the need for further synergies between multilateral environmental agreements; and emphasized that conservation promises need to be fully implemented in order to be meaningful in a post-2020 framework.

COP-13 gave rise to fewer specific resolutions than earlier forums, albeit that a number of earlier resolutions were reviewed and revised in the light of these deliberations. Nevertheless, a small number of under-regulated issues were considered at Gandhinagar, with the CMS adopting its first coordinated policies on the problems of light pollution, acknowledging that this was becoming an increasing concern for a number of its subsidiary instruments. Accordingly, the CMS has taken a positive first step in the wider multilateral consideration of light as a pollutant, having previously observed tangible impacts upon bats and sea turtles, and adopting a series of Guidelines concerning Light Pollution for Wildlife (Resolution 13.5). A further Resolution was adopted in relation to the role of insects (Resolution 13.6) as a source of prey for migratory species, calling on parties to avoid indiscriminate insecticide policies, improving the knowledge base on insect populations, and considering insect populations as an important element of the conservation requirements for migratory species such as bats, birds, and freshwater fish. Particular attention was also reserved for the *Chrondrichthyan* species (sharks, rays, and chimaeras) with Resolution 13.3, buttressing the work undertaken

under the auspices of the CMS memorandum of understanding (MOU) on shark species and urging the parties to protect these species holistically in line with other international initiatives. The COP also endorsed the Joint CMS–CITES African Carnivores Initiative (Resolution 13.4), designed to further protect stocks of the African wild dog, cheetah, leopard, and lion, mandating the development of a joint work program between the two treaties to promote a coordinated response to their conservation needs and calling on parties to implement and support the initiative.

In addition to these resolutions, a further twelve Concerted Actions were approved at the COP. Concerted Actions involve institutional and budgetary support for the CMS framework in pursuit of targeted conservation projects concerning particular species listed on the Appendices to the Convention that are not necessarily subject to regional Agreements or MOUs. Three such Concerted Actions are aimed at improving the conservation status of an array of African land mammals, addressing populations of nut-cracking chimpanzees in West Africa, giraffes, and, more broadly, Sahelo-Saharan megafauna, the latter of which has also been subject to a Special Species Initiative under the framework of the Convention. A further Concerted Action addresses the Asian elephant, with African elephants having long been a core concern under the CMS regime. Marine species were also heavily represented, with three species of cetaceans subject to Concerted Actions. The first addresses harbour porpoises of the Baltic Sea and Iberian Peninsula and will support the work of the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS) in particular. Welcome attention was also given to stocks of freshwater cetaceans, with the Irrawaddy Dolphin and the Ganges River Dolphin also subject to Concerted Actions—a rare foray into the conservation needs of riverine species marine mammals. Two Concerted Actions concern populations of Guitarfish, Sawfish, and Wedgefish, alongside Concerted Actions in relation to Great Indian Bustards, Bengal Floricans, and Antipodean Albatrosses.

(1) AGREEMENT ON THE CONSERVATION OF CETACEANS OF THE BLACK SEA, MEDITERRANEAN SEA AND CONTIGUOUS ATLANTIC AREA (ACCOBAMS)

Ahead of its milestone twenty-fifth anniversary in 2021, the present year was comparatively more circumspect for ACCOBAMS. In February, the Scientific Committee convened its eleventh Meeting in Cap d'Ail, France, wherein there was extensive consideration of the current knowledge base, key cetacean–human interactions, outreach issues, and cooperation with other relevant bodies. The meeting resulted in the adoption of some thirty-four separate conclusions for further work—notably, the approval of the 2020–2 Work Programme. Particular concern was reserved for the perennial problem of by-catches, for which a series of action points was developed for further liaison with relevant fisheries bodies within the Agreement Area, alongside further work on ocean noise, marine litter, and ecotourism concerns. Further concerns were raised regarding 'semi-captivity centres' that have proliferated within these waters, culminating in the adoption of a Working Group to study the scientific and legal implications of these developments.

(2) AGREEMENT ON THE CONSERVATION OF AFRICAN-EURASIAN WATERBIRD AGREEMENT (AEWA)

The AEWA welcomed Armenia and Turkmenistan as new parties, bringing the cohort of parties to the Agreement to eighty-two. In anticipation of the forthcoming eighth Meeting of the Parties (MOP) in 2021 and the COP of 2020, the current year was comparatively quiet for the

Agreement. Instead, the year saw meetings of a host of species Working Groups, including the European Seaduck International Working Group and the Eurasian Curlew International Working Group. In October, a workshop was convened to consider the seabirds of the Benguela Current Large Marine Ecosystem, with particular reference to the conservation status of forage fish, upon which multiple seabirds in the region are dependant for food.

(3) ASCOBANS

In September, ASCOBANS convened its ninth MOP. A busy agenda generated a series of resolutions on a range of issues pertaining to small cetacean conservation in these waters. Beyond the customary range of pronouncements concerning the financial and administrative directions of the Agreement, one particularly significant development was the formal recognition of the plight of the Baltic proper harbour porpoise, with scientists having long considered that populations in this enclosed sea were biologically diverse. To this end, the parties sought to conduct further research on this species and to work towards listing it on Appendix I of the CMS at the next COP in 2023 (Resolution 9.2). As with other MOPs, the ASCOBANS parties also expressed strong concerns over marine debris (Resolution 9.3) and food availability and resource depletion (Resolution 9.4) as pressing threats to small cetaceans in the Agreement Area.

In June, the Jastarnia Working Group for the Recovery Plan for the Baltic Harbour Porpoise convened its sixteenth meeting with a particular focus upon by-catch mitigation initiatives in the Baltic Sea. In December, the Common Dolphin Group convened its second meeting, focusing on the conservation needs of this species and also raising awareness of the parlous rates of by-catches, especially in the Bay of Biscay.

(4) AGREEMENT ON THE CONSERVATION OF POPULATIONS OF EUROPEAN BATS (EUROBATS)

In July, the twenty-first Meeting of the Advisory Committee was held in Belgrade, Serbia. The meeting provided an opportunity in advance of MOP-8 in October 2018 to receive updates concerning the implementation of the Agreement by the parties and to review the work conducted by the expansive collection of International Working Groups established under the auspices of the Agreement. These address the primary threats facing migratory bats in Europe, with particular emphasis on wind turbines, critical feeding areas, roads and infrastructure, sustainable forest habitats, buildings and other human-made habitats, rescue and rehabilitation, light pollution, and public education. In July, the Standing Committee to EUROBATS convened its seventeenth meeting to review financial and administrative matters pertaining to the Agreement. Meanwhile, the ever-popular program of 'European Bat Night' was conducted across the various parties and range states, advancing the outreach and education mandate of the Agreement.

(5) CONSERVATION OF MIGRATORY BIRDS OF PREY IN AFRICA AND EURASIA (RAPTORS MOU)

This year, the Raptors MOU welcomed Ethiopia as its sixty-first signatory. The MOU took the opportunity presented by the COP to showcase activities under its purview in a series of side events, while also formally unveiling the Strategic Implementation Plan for the Vulture Multi-Species Action Plan, which had been adopted at the previous COP in 2017.

Meanwhile, the Saker Falcon Task Force convened three separate meetings throughout the year, with particular emphasis on mitigating the risk of electrocution faced by these birds.

(6) CONSERVATION OF SOUTHERN SOUTH AMERICAN MIGRATORY GRASSLAND BIRD SPECIES AND THEIR HABITATS (GRASSLAND BIRDS MOU)

In September, the Grassland Birds MOU convened a Monitoring Meeting of the Action Plan of the MOU, following its second Meeting of the Signatories in 2018, at which the Action Plan had been updated and approved through to 2023. The meeting provided an opportunity to review national implementation of the Action Plan to date and to assess next steps in developing these conservation strategies further.

(7) MOU CONCERNING CONSERVATION AND RESTORATION OF THE BUKHARA DEER (BUKHARA DEER MOU)

In October, after a period of comparative administrative abeyance, the Bukhara Deer MOU (*Cervus elaphus bactrianus*) convened a Technical Workshop. Initially intended as its second Meeting of the Signatories, the online forum instead acted as a preparatory meeting for a future such event. The meeting provided a valuable opportunity to consider the conservation status of the Bukhara deer and to review in detail the proposed Action Plan and Programme of Work for this instrument for the period of 2021–6. As a key outcome, it was determined that future sessions of the Meeting of the Signatories should be convened within the broader framework of the Central Asian Mammals Initiative, allowing the signatories to consider these species in the wider context of strategies for the land mammals of this region.

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3. Trade in Endangered Species

This report covers important developments related to trade in endangered species, focusing on developments concerning the Convention on Trade in Endangered Species of Wild Flora and Fauna (CITES) and other related important events/developments in the past year.

(1) CITES

(A) Membership

The total number of members at the end of the year was 183.

(B) Institutional Meetings

The institutional structure of CITES includes the Conference of Parties (COP), the Secretariat, the Standing Committee (SC), and two scientific committees: the Animal Committee (AC) and the Plant Committee (PC). The COP is convened every three years;