



**CONVENTION ON  
MIGRATORY  
SPECIES**

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STRATEGIC AND PLANNING MEETING  
OF THE SCIENTIFIC COUNCIL  
Formia (Italy), 9-11 October 2013

**DRAFT GLOBAL GAP ANALYSIS OF THE CONVENTION ON MIGRATORY  
SPECIES**

**Introduction**

1. In Resolution 10.09 on the Future Structure and Strategies of the CMS and CMS family, the Conference of the Parties at its tenth meeting, held in Bergen, Norway, in November 2011, requested *a global gap analysis at Convention level: including which issues are being addressed, which issues are not being addressed, if another organization is addressing these issues, a scientific gap analysis and what research is required* (Res. 10.09, Annex I, Activity 5, Short Term deliverable 1).
2. Pursuant to this request, this document identifies some threats and challenges as well as other cross-cutting issues that are not directly addressed by CMS so far, but that have the potential to become relevant in the near future. This document also identifies gaps in the CMS Appendices, highlighting species which are not listed yet but could benefit from listing in the near future.
3. It has to be clarified that this document is a preliminary draft that has been elaborated internally at the CMS Secretariat and has not been circulated outside. The Secretariat believes that this document can benefit from the input of the Scientific Council and this is why it is tabled for the special meeting of the Council to be held in Formia in October 2013. It should be considered as a living document that will be updated after the Formia meeting and subsequently circulated to Parties for further consultation.

## **Methodology**

4. The global gap analysis in this paper has benefited from a discussion and survey taken at the Strategic and Planning Meeting of the Scientific Council, held in Formia, Italy, from 9 to 11 October 2013.
5. At the meeting in Formia a simple questionnaire was circulated and participants asked to identify key gaps in the work of the Convention, including to emerging threats to migratory species, opportunities for the promotion of migratory species, and gaps in the Appendices. The questionnaire can be found in Annex II to this document. Of XX handed out, YY completed questionnaires were returned to the Secretariat.
6. Regarding emerging threats and opportunities ... [to be added]
7. The basis for the analysis of gaps in the appendices has been the Global Register for Migratory Species (GROMS) (Riede, 2004), which was developed by the Alexander Koenig Research Institute and Museum of Zoology in cooperation with the CMS Secretariat, and supported by the German Federal Agency for Nature Conservation. GROMS provides a database of 2880 migratory vertebrate species, including scientific and vernacular names, IUCN status and CMS and CITES listings.
8. GROMS is reflecting the current state of knowledge on migratory species. This means that that entries on migratory birds (whose migrations are comparatively well monitored) are more complete than those on mammals, fishes and insects (where information is only available on economically significant species).
9. Considerable knowledge gaps exist for bats, Asian antelopes, small whales, tropical fishes and insects. For this reason the information from GROMS was supplemented with information on bats from Mickleburgh et. al. (2009), on birds from Kirby (2010), on marine fish from the IUCN Species Survival Commission's Shark Specialist Group (2007), and on freshwater fish from Hogan (2011). The reviews undertaken by UNEP-WCMC on terrestrial mammals and marine turtles have also been taken into account; these reviews were tabled as information documents for COP10 in Bergen (UNEP/CMS/Inf.10.15 and UNEP/CMS/Inf.10.16).
10. [To be added]

## **Issues being addressed**

11. A great number of critical issues to migratory species are already being addressed under the Convention usually through the work of the Scientific Council or in the form of COP resolutions and related follow-up actions. These issues include, for example, climate change, ecological networks, flyways, barriers to migration (fences, powerlines, etc), bird poisoning, wildlife disease, marine debris, bycatch, underwater noise, etc.) In addition the Scientific

Council has undertaken a number of taxonomic reviews including sharks, freshwater fish, terrestrial mammals, marine turtles, etc.

### **Issues not addressed**

12. Despite the broad range of issues that CMS is already addressing, there are a number of issues that are not being addressed. Some of these are related to emerging threats to migratory species and others present opportunities for the promotion of migratory species. There are also some taxonomic groups that have received very little attention from CMS, despite having species listed in the Appendices. Critical issues of all these categories include, but are not limited to, the following:

#### Taxonomic groups not addressed

##### *Invertebrates*

13. There is only one invertebrate species which is listed under CMS, the Monarch butterfly (*Danaus plexippus*), listed in Appendix II. However there are many other insects that are highly migratory and fulfill the requirements to be covered by CMS according to the definitions of Appendix I and Appendix II. An example is the Globe Skimmer (*Pantala flavescens*), a dragonfly that undertakes a yearly migration from India to East Africa in great numbers. This is one of the biggest gaps of the Convention and an issue that requires attention from the Scientific Council.

#### Threats to migratory species

##### *Habitat destruction*

14. Habitat destruction is perhaps the most important cause of species extinction worldwide. Conversion of land for agriculture is the principal cause of habitat destruction. Other important causes of habitat destruction include mining, logging, trawling, urban sprawl and infrastructure development. A wide range of organizations are dealing with different aspects of habitat destruction, including UNEP, FAO, the Ramsar Convention, and UNESCO's World Heritage Convention.

##### *Renewable energy*

15. The expansion of renewable energy production often causes land use change and degradation of habitat of migratory species. This has been noted, for example with regards to biofuel production and hydropower development. Solar power stations and tidal power plants might also have negative effects. The impacts of renewable energy production are addressed by a

number of organizations, including CBD, FAO and UNEP. The project that CMS is starting with the International Agency for Renewable Energy (IRENA) is expected to provide some answers by COP 11 in 2014.

### *Resource extraction*

16. Mining and other forms of resource extraction (e.g. “fracking”) are known to cause habitat loss, degradation and pollution, especially groundwater contamination. Other organizations dealing with environmental impacts of mining include for example The World Bank. Large scale mining projects like the one that is planned for Mongolia is likely to have a huge impact on migratory species, not only because of the mining per se but also because of the infrastructures that are linked to it (roads, railways, new settlements, etc). Strong and effective legal and regulatory frameworks, policies and practices for the mining sector are needed, including biodiversity safeguards for species and habitats.

### *Wildlife crime*

17. Wildlife crime is a threat of growing importance to migratory species. Many endangered species are of considerable economic value, so even when conservation legislation exist, they are often illegally hunted, sometimes by well organized groups. Organizations focusing on wildlife crime include UNEP, CITES, Interpol, WCO, UNODC, and TRAFFIC.

## Opportunities

### *Antarctica*

18. Antarctica, through the Antarctic treaty “*shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord.*” The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) has been established to coordinate conservation (and fisheries) in Antarctica. Attempts to create a large system of marine protected areas (MPAs) have been undertaken under CCAMLR, to no success until now. Increased conservation efforts and ideally the establishment of large-scale MPAs in Antarctica would benefit in particular many marine mammals listed in the CMS Appendices. Other organizations addressing the issue include CCAMLR.

### *Business and biodiversity*

19. Cooperation between the business and biodiversity conservation communities is essential to achieve goals for global sustainability. Within the international conservation community the

inclusion of the private sector has been frequently discussed (e.g. TEEB<sup>1</sup> Business and Enterprise). Also within the UN System there are efforts to do so, e.g. the UN Global Compact. Other organizations addressing the issue include TEEB, UN Global Compact, and the CBD.

#### *Economic valuation of migratory species*

20. Migratory species provide a large number of ecosystem services including food, medicines/pharmaceuticals, biochemicals, seed and nutrient dispersal, pollination, cultural, intellectual and spiritual inspiration. They play an important role in people's livelihoods and in local, national and regional economies. Based on the TEEB reports, IPBES in its 2014-2018 work programme will carry out fast-track assessments on values, valuation and accounting of biodiversity and ecosystem services. This assessment and others with a more specific focus on migratory species could yield key information to increase public awareness about the economic and cultural value of migratory species.

#### *Marine Areas Beyond National Jurisdiction*

21. Marine Areas Beyond National Jurisdiction (ABNJs), commonly called the high seas, are often considered the world's last global commons. ABNJs are key habitats for many migratory species. ABNJs suffer from inadequate governance, affecting the conservation and sustainable use of migratory (and non-migratory) species. Current ongoing processes in international fora on conservation in ABNJs present opportunities for the improved conservation of migratory species. ABNJs are addressed under UNCLOS, UNGA, Regional Fisheries Management Organisations (RFMOs), and the World Bank.

#### *Sustainable Tourism*

22. Sustainable tourism follows the paradigm that tourism should not harm the environment. At the same time the tourism activity should raise awareness, interest and compassion that result in increased public engagement for environmental conservation. This approach is suitable to apply, e.g. to increase awareness of a charismatic migratory species. Also a dialogue with the public, including knowledge transfer, can take place. This results in more conscient behaviour towards nature and migratory species. Other organizations dealing with sustainable tourism include the UNWTO and UNEP.

#### *Telecommunication*

23. The increase in coverage and intensity of wireless telecommunication systems, such as WWAN (Large Area Wireless Technologies), or Google's Project Loon<sup>2</sup> could have negative effects on migratory species (Cucurachi et al, 2012). At the same time, these technologies create

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<sup>1</sup> TEEB stands for The Economics of Ecosystems and Biodiversity

<sup>2</sup> For more information, see: <http://www.google.com/loon/>

opportunities for research and data transmission in remote areas and possible synergies in facilitating the tracking of migratory species.

#### *Migration ecology (Tracking animal movement)*

24. For many migratory species knowledge of their migration routes, migration timing and consequently threats during their migration is missing. Furthermore there is a high number of endangered species, especially smaller ones, where it is unknown if they exhibit migratory behaviour. New technologies, such as those developed under the ICARUS project<sup>3</sup>, and new methodologies will make tracking of smaller animals feasible. Increasing application of existing animal tracking methodology and adoption of new technology and methods, holds great promise to improve knowledge on the migratory behaviour of many species. Several research institutes and universities advance research on tracking animal movement, including, for example, the Max Planck Institute for Ornithology and the members of ICARUS. Keeping up to date on these new technologies and promoting their use among CMS Parties is an issue that can help bring forward the CMS agenda in the coming years.

#### **Gaps in the Appendices**

25. Annex I provides an overview of gaps in the CMS Appendices. The Annex draws on a number of relevant sources but does not claim to be comprehensive. A total of over 250 species from different taxa have been identified.

26. Species are listed in the Appendices at each COP at the proposal of the Parties. This procedure depends very much on the interest and opportunity of each particular Party and does not follow a systematic approach. The list of species in Annex 1 is meant to assist Parties in identifying species that could be listed if Parties so wished.

27. In Annex 1, the proposal for listing a species on CMS Appendix I and/or II is based on its status on the IUCN Red List. “Critically Endangered” or “Endangered” species are suggested for listing on Appendices I and II, “Vulnerable” or “Near Threatened” species on Appendix II.<sup>4</sup> Species that are defined as Least Concern by the IUCN do not appear on the list.<sup>5</sup> Suggestions for species that are not listed by the IUCN, or are data deficient, are based on CITES status.

28. Inclusion of species in the Appendices and which species qualify for listing is an issue that is closely related to the availability of criteria for listing. In this respect a working group has

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<sup>3</sup> For more information, see: <http://www.icarusinitiative.org/>

<sup>4</sup> According to the Convention, “Appendix I shall list migratory species which are endangered.” (Art. III) and “Appendix II shall list migratory species which have an unfavourable conservation status and which require international agreements for their conservation and management, as well as those which have a conservation status which would significantly benefit from the international cooperation that could be achieved by an international agreement” (Art. IV).

<sup>5</sup> Except for *Pantala flavescens* (Global Skimmer), *Capra sibirica* (Asian Ibex), *Cervus elaphus* (Red Deer), *Kobus kob leucotis* (White-eared Kob), and *Rangifer tarandus* (Reindeer) all of which are highly migratory and could benefit from specialized regional agreements.

been established under the Scientific Council to develop these criteria, and the results of this work will be presented to the Scientific Council in 2014.

## Mammals

### *Terrestrial Mammals*

29. Among the main threats for terrestrial mammals are habitat loss and degradation as well as unsustainable hunting. In addition, particularly the species of the order *Carnivora* suffer from human wildlife conflict.

30. Gaps in the CMS appendices exist in relation to many herbivorous species such as *Elephantidae* (Elephants) and the *Bovidae* (Bovids) to which both bisons and gazelles belong. Other charismatic species include *Panthera leo* (Lion), *Panthera tigris* (Tiger), and *Ursus maritimus* (Polar Bear). A listing proposal already exists for *Pantholopi hodgsonii* (Tibetan antelope).

### *Aquatic Mammals*

31. Of the aquatic mammal species listed in Annex I, 2 cetacean species of the family *Monodontidae* are already listed in CMS Appendix II and proposed for uplisting. A listing proposal for *Ursus maritimus* (Polar Bear) is currently being consulted within the Scientific Council.

32. In addition, there are several candidates belonging to the Order *Carnivora*, seals and sea lions from the families *Otariidae* and *Phocidae*. These species are predominantly threatened by fishing practices, both directly as bycatch and indirectly through depletion of their prey. Diseases, loss of genetic diversity and changing ecological interactions caused e.g. by climate change are also major threats that affect these species. Pollution through marine debris and industrial production and human disturbance by recreational activities cause further concern.

33. The remaining cetacean species belong to various families. Bycatch, prey depletion, underwater noise, marine debris and climate change are major threats. Moreover, especially the *Delphinidae* are frequently subjected to directed takes. Other threats are entanglement in fishing gear, vessel collision, disturbance by underwater noise, oil spills and climate change.

34. A high number of aquatic mammals are data deficient and research is needed to improve knowledge on their conservation status.

### *Bats*

35. There is a large number of bat species that are listed as least concern under IUCN. Gaps on the CMS Appendices exist particularly with regards to African and South and Central

American species. Among the main threats are the destruction or disturbance of caves and killing species due to an erroneous believe in vampire bats.

## Birds

36. The CMS Appendices already contain a large number of bird species, but there are still many gaps, particularly regarding *Procellariiformes* (Seabirds), *Sphenisciformes* (Penguins), *Psittaciformes* (Parrots) as well as some *Columbiformes* (Pigeons).

37. Among the main threats to birds are habitat loss and degradation due to energy production and mining, agriculture and aquaculture as well as logging and unsustainable hunting and trapping. Competition by invasive alien species is also a serious problems.

38. For the *Procellariiformes* climate change connected to changing weather patterns and sea level rise represents another specific threat. Furthermore the *Procellariiformes* are the birds most affected by the rapidly increasing plastic pollution.

39. For the *Psittaciformes* the illegal pet trade is an issue. Habitat degradation and loss due to deforestation and timber production add to the pressure on this species group.

## Fishes

### *Elasmobranchii*

40. The IUCN Species Survival Commission's Shark Specialist Group's Review of Chondrichthyan Fishes (2007) identified 46 species within the class of Elasmobranchii that would be suitable for a CMS listing, including 13 Ray species (*Rajiformes*), 30 sharks species (belonging to the orders: *Carcharhiniformes* (19), *Lamniformes* (7), *Squaliformes* (1), *Squatiniiformes* (1) and *Pristiformes* (5, Sawfish).

41. The main threats for rays, sharks and sawfish are unsustainable fishing and harvesting. In addition, problems with population genetics based on the low reproduction rates of these species and habitat loss and degradation, mainly due to agriculture and aquaculture as well as energy production and mining are considered as key threats.

### *Actinoptyerii*

42. According to Hogan (2011), gaps in the CMS appendices exist with regards to *Clupeiformes* (e.g. herring), *Cypriniformes* (e.g. carp), *Siluriformes* (Catfish) and *Salmoniformes* (Salmon).



43. For all freshwater fish species habitat loss and degradation resulting from river damming, energy production and mining are major threats. In addition, competition with invasive alien species, unsustainable fishing and harvesting are threatening these species.

### Reptiles

44. Based on information from GROMS, no gaps in the CMS appendices could be identified with regards to reptiles.<sup>6</sup>

### Amphibians

45. There are no migratory amphibians listed on GROMS, possibly due to a lack of data.

### Insects

46. GROMS lists 10 suggestions for migratory insects, mostly butterflies. However, for none of these species data on migration behaviour and conservation status is available under IUCN.<sup>7</sup> A potential species to be listed is the Globe Skimmer (*Pantala flavescens*), a wide-ranging dragonfly of the family *Libellulidae*.

### Marine invertebrates

47. Within the marine realm, there are many invertebrate species that may also be migratory. *Octopus vulgaris*, for example, is known to undertake limited seasonal migrations, usually overwintering in deeper waters and occurring in shallower waters during summer.<sup>8</sup> However, data on migratory behavior and threat status of marine invertebrates is lacking.

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<sup>6</sup> However, it is unclear if freshwater crocodiles migrate seasonally, as this behaviour is known for saltwater crocodiles (*Crocodylus porosus*).

<sup>7</sup> The ICARUS project (<http://icarusinitiative.org/>) will possibly involve equipping animals as small as butterflies with small transmitters, which can potentially start to fill data gaps concerning the migratory behaviour of some species.

<sup>8</sup> For the source of this information, see the FAO Species Fact Sheet for *Octopus vulgaris*: <http://www.fao.org/fishery/species/3571/en>

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**Annex 1**

| Species                    |                | <u>Pressure</u>   | <u>State</u>  | <u>Response</u>   | <u>Potential listing</u>         |                      | Comments                               |
|----------------------------|----------------|---|---|-------------------|----------------------------------|----------------------|--|
|                            |                |   |   |                   | IUCN Status,<br>Population trend | CMS, CITES<br>Status |  |
| Latin name                 | Common name    |   |   |                   |                                  |                      |  |
| <b>Terrestrial Mammals</b> |                |   |   |                   |                                  |                      |  |
| <i>Bison bison</i>         | American bison | Habitat loss and degradation;<br>Population genetics - Hybridisation,<br>Inbreeding;<br>Diseases;<br>Other  | IUCN Status Near<br>Threatened,<br>stable population trend, | CITES Appendix II |                                  | X                    | Range States are not<br>Parties to CMS |
| <i>Bison bonasus</i>       | European bison | Habitat loss and degradation - Logging<br>and unsustainable harvesting,<br>Agriculture;<br>Other;<br>Population genetics - Population<br>fragmentation, Loss of genetic diversity,<br>Hybridisation, Inbreeding, Low<br>reproduction rates;<br>Diseases;<br>Unsustainable hunting and trapping  | IUCN Status Vulnerable,<br>increasing population trend      |                   |                                  | X                    |  |
| <i>Bos gaurus</i>          | Gaur           | Unsustainable hunting and trapping;<br>Habitat loss and degradation -<br>Agriculture, Energy production and<br>mining, Infrastructure and service<br>corridors, Residential and commercial<br>development, Logging and<br>unsustainable harvesting;<br>Human Disturbance - Population growth;<br>Population genetics - Population<br>fragmentation;<br>Invasive Species - Destructive<br>behaviour;<br>Diseases | IUCN Status Vulnerable,<br>decreasing population trend,     | CITES Appendix I  | X                                | X                    |  |

| Species                     |                 | <u>Pressure</u>  | <u>State</u>   | <u>Response</u>   | <u>Potential listing</u>         |                      | Comments  |
|-----------------------------|-----------------|--|--|-------------------|----------------------------------|----------------------|---|
|                             |                 |  |  |                   | IUCN Status,<br>Population trend | CMS, CITES<br>Status |   |
| Latin name                  | Common name     |  |  |                   |                                  |                      |   |
| <i>Capra falconeri</i>      | Markhor         | Unsustainable hunting and trapping;<br>Population genetics - Population fragmentation;<br>Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting | IUCN Status Endangered, decreasing population trend      | CITES Appendix I  | X                                | X                    |   |
| <i>Capra caucasica</i>      | Western Tur     | Unsustainable hunting and trapping;<br>Habitat loss and degradation - Agriculture, Prey/Food depletion;<br>Climate Change - Extreme weather                                | IUCN Status Endangered, decreasing population trend      |                   | X                                | X                    |   |
| <i>Capra cylindricornis</i> | Eastern Tur     | Unsustainable hunting and trapping;<br>Habitat loss and degradation - Agriculture, Prey/Food depletion;<br>Climate Change - Extreme weather                                | IUCN Status Near Threatened, decreasing population trend |                   |                                  | X                    |   |
| <i>Capra sibirica</i>       | Asian Ibex      | Poaching and subsistence hunting;<br>competition with livestock  | IUCN Least Concern, population trend unknown             |                   |                                  | X                    |   |
| <i>Cervus elaphus</i>       | Red Deer        | Intermixing of subspecies and introduction of parasites and diseases;<br>Overhunting and habitat loss in some areas  | IUCN Least Concern, increasing population trend          |                   |                                  | X                    | On Appendix II only populations of <i>Cervus elaphus yarkandensis</i> in Kazakhstan, Kyrgystan, Tajikistan, Turkmenistan, Uzbekistan and Afghanistan are listed |
| <i>Cuon alpinus</i>         | Indian Wild Dog | Habitat loss and degradation - Prey/Food depletion, Changes in land-use management;<br>Unsustainable hunting and trapping;<br>Human wildlife conflict;<br>Diseases         | IUCN Status Endangered, decreasing population trend      | CITES Appendix II | X                                | X                    |   |

| Species                   |                     | <u>Pressure</u>  | <u>State</u>   | <u>Response</u>      | <u>Potential listing</u> |         | Comments |
|---------------------------|---------------------|--|--|----------------------|--------------------------|---------|----------|
| Latin name                | Common name         |  | IUCN Status,<br>Population trend                                     | CMS, CITES<br>Status | App. I                   | App. II |          |
| <i>Elephas maximus</i>    | Indian Elephant     | Human Disturbance - Population growth;<br>Habitat loss and degradation -<br>Agriculture;<br>Unsustainable hunting and trapping;<br>Population genetics - Adult sex-ratios            | IUCN Status Endangered,<br>decreasing population trend               | CITES Appendix I     | X                        | X       |          |
| <i>Eudorcas rufifrons</i> | Red fronted Gazelle | Unsustainable hunting and trapping;<br>Habitat loss and degradation -<br>Agriculture   | IUCN Status Vulnerable,<br>decreasing population trend               |                      |                          | X       |          |
| <i>Eudorcas thomsonii</i> | Thomson's gazelle   | Invasive Species;<br>Human Disturbance - Recreational<br>activities;<br>Habitat loss and degradation -<br>Infrastructure and service corridors,<br>Changes in land-use management    | IUCN Status near<br>threatened, decreasing<br>population trend       |                      |                          | X       |          |
| <i>Kobus kob leucotis</i> | White-eared Kob     | Unsustainable hunting and trapping;<br>Habitat loss and degradation -<br>Agriculture, Climate Change   | IUCN Status Least Concern,<br>unknown Population trend               |                      |                          | X       |          |
| <i>Lynx pardinus</i>      | Iberian Lynx        | Habitat loss and degradation - Logging<br>and unsustainable harvesting, River<br>Damming, Energy production and<br>mining, Prey depletion, Residential and<br>commercial development | IUCN Status Critically<br>Endangered, decreasing<br>population trend | CITES Appendix I     | X                        | X       |          |

| Species                   |                  | <u>Pressure</u>  | <u>State</u>   | <u>Response</u>   | <u>Potential listing</u> |         | Comments   |
|---------------------------|------------------|--|--|---|--------------------------|---------|--|
| Latin name                | Common name      |  | IUCN Status,<br>Population trend                       | CMS, CITES<br>Status  | App. I                   | App. II |  |
| <i>Loxodonta africana</i> | African Elephant | Human wildlife conflict;<br>Unsustainable hunting and trapping;<br>Illegal trade;<br>Habitat loss and degradation - Changes<br>in land-use management, Residential<br>and commercial development   | IUCN Status Vulnerable,<br>increasing population trend | CITES Appendix I/<br>II (only Botswana,<br>Namibia , South<br>Africa, Zimbabwe) | X                        |         | listed on CMS<br>Appendix II, could be<br>uplisted |
| <i>Pan troglodytes</i>    | Chimpanzee       | Habitat loss and degradation -<br>Agriculture, Logging and unsustainable<br>harvesting, Changes in land-use<br>management, Energy production and<br>mining;<br>Human Disturbance - Population growth;<br>Unsustainable hunting and trapping;<br>Illegal trade;<br>Population genetics - Low reproduction<br>rates;<br>Diseases | IUCN Status Endangered,<br>decreasing population trend | CITES Appendix I  | X                        | X       |  |
| <i>Panthera leo</i>       | Lion             | Unsustainable hunting and trapping;<br>Habitat loss and degradation;<br>Diseases;<br>Human wildlife conflict   | IUCN Status Vulnerable,<br>decreasing population trend | CITES Appendix I  |                          | X       |  |
| <i>Panthera tigris</i>    | Tiger            | Illegal trade;<br>Habitat loss and degradation -<br>Agriculture, Logging and unsustainable<br>harvesting, Residential and commercial<br>development;<br>Human wildlife conflict  | IUCN Status Endangered,<br>decreasing population trend |   | X                        | X       |  |

| Species                            |                             | <u>Pressure</u>   | <u>State</u>   | <u>Response</u>      | <u>Potential listing</u> |         | Comments |
|------------------------------------|-----------------------------|---|--|----------------------|--------------------------|---------|----------|
|                                    |                             |   | IUCN Status,<br>Population trend                               | CMS, CITES<br>Status | App. I                   | App. II |          |
| Latin name                         | Common name                 |   |  |                      |                          |         |          |
| <i>Pantholops hodgsonii</i>        | Chiru                       | Unsustainable hunting and trapping;<br>Habitat loss and degradation -<br>Agriculture;<br>Infrastructure and service corridors   | IUCN Status Endangered,<br>decreasing population trend         | CITES Appendix I     | X                        | X       |          |
| <i>Procapra picticaudata</i>       | Tibetan Gazelle             | Habitat loss and degradation -<br>Agriculture, Infrastructure and service<br>corridors;<br>Unsustainable hunting and trapping   | IUCN Status Near<br>Threatened, decreasing<br>population trend |                      |                          | X       |          |
| <i>Pongo pygmaeus</i>              | Bornean Orangutan           | Habitat loss and degradation -<br>Agriculture, Logging and unsustainable<br>harvesting;<br>Other;<br>Population genetics - Population<br>fragmentation, Inbreeding;<br>Unsustainable hunting and trapping;<br>Illegal trade | IUCN Status Endangered,<br>decreasing population trend         | CITES Appendix I     | X                        | X       |          |
| <i>Rangifer tarandus</i>           | Reindeer                    | Onshore petroleum exploration in<br>Canada, poaching in the Russian<br>Federation and habitat loss in Finland   | IUCN Status Least Concern,<br>stable population trend          |                      |                          | X       |          |
| <b>Bats</b>                        |                             |   |  |                      |                          |         |          |
| <i>Balantiopteryx io</i>           | Thomas' sac-winged<br>bat   | Human Disturbance - Recreational<br>activities, Destructive behaviour   | IUCN Status Vulnerable,<br>decreasing population trend         |                      |                          | X       |          |
| <i>Choeronycteris<br/>mexicana</i> | Mexican long-tongued<br>bat | Habitat loss and degradation - Energy<br>production and mining;<br>Human Disturbance - Recreational<br>activities   | IUCN Status Near<br>Threatened                                 |                      |                          | X       |          |
| <i>Hipposideros<br/>commersoni</i> | Grant leaf-nosed bat        | Unsustainable hunting and trapping;<br>Habitat loss and degradation   | IUCN Status Near<br>Threatened                                 |                      |                          | X       |          |

| Species                       |                        | <u>Pressure</u>   | <u>State</u>   | <u>Response</u>   | <u>Potential listing</u>      |                   | Comments |   |
|-------------------------------|------------------------|---|--|-------------------|-------------------------------|-------------------|----------|---|
|                               |                        |   |  |                   | IUCN Status, Population trend | CMS, CITES Status |          | App. I  |
| Latin name                    | Common name            |   |  |                   |                               |                   |          |   |
| <i>Leptonycteris curasoae</i> | Western long-nosed bat | Habitat loss and degradation;<br>Human Disturbance - Destructive behaviour  | IUCN Status Vulnerable, decreasing population trend      |                   |                               |                   | X        |   |
| <i>Leptonycteris nivalis</i>  | Mexican long-nosed bat | Habitat loss and degradation - Agriculture;<br>Human Disturbance - Destructive behaviour  | IUCN Status Endangered, decreasing population trend      |                   | X                             |                   | X        |   |
| <i>Myotis grisescens</i>      | Grey myotis            | Habitat loss and degradation - Agriculture  | IUCN Status Near Threatened, increasing population trend |                   |                               |                   | X        |   |
| <i>Myotis sodalis</i>         | Indiana bat            | Human Disturbance - Recreational activities, Destructive behaviour;<br>Habitat loss and degradation - Agriculture, Infrastructure and service corridors, Residential and commercial development, Changes in land-use management | IUCN Status Endangered, decreasing population trend      |                   | X                             |                   | X        |   |
| <i>Natalus micropus</i>       | Cuban funnel-eared bat | Human Disturbance - Recreational activities;<br>Habitat loss and degradation - Energy production and mining   | IUCN Status Near Threatened, decreasing population trend |                   |                               |                   | X        |   |
| <b><i>Aquatic Mammals</i></b> |                        |   |  |                   |                               |                   |          |   |
| <i>Ursus maritimus</i>        | Polar Bear             | Climate Change - Ecological interactions and habitat change;<br>Pollution - Industry and production;<br>Habitat loss and degradation - Energy production and mining   | IUCN Status Vulnerable, decreasing population trend      | CITES Appendix II |                               |                   | X        | Listing Proposal out for consultation with the Scientific Council |



| Species                    |                       | <u>Pressure</u>   | <u>State</u>  | <u>Response</u>  | <u>Potential listing</u>         |                      | Comments  |
|----------------------------|-----------------------|---|---|------------------|----------------------------------|----------------------|---|
|                            |                       |   |   |                  | IUCN Status,<br>Population trend | CMS, CITES<br>Status |   |
| Latin name                 | Common name           |   |   |                  |                                  |                      |   |
| <i>Balaenoptera brydei</i> | Bryde's whale         | Unsustainable fishing and harvesting aquatic resources - Overharvesting   | IUCN Status Data Deficient                          | CITES Appendix I | X                                |                      | listed on CMS Appendix II, could be uplisted; especially North Pacific populations are threatened |
| <i>Berardius arnuxii</i>   | Arnoux's beaked whale | Unsustainable fishing and harvesting aquatic resources - Bycatch, Experimental fisheries, Prey depletion; Pollution - Noise pollution; Climate Change – Ocean temperature, Ecological interactions and habitat change | IUCN Status Data Deficient                          | CITES Appendix I | X                                | X                    |   |
| <i>Callorhinus ursinus</i> | Northern fur seal     | Unsustainable fishing and harvesting aquatic resources - Prey depletion, Bycatch; Pollution - Marine debris, Industry and production; Climate Change - Ecological interactions and habitat change                     | IUCN Status Vulnerable, decreasing population trend |                  |                                  | X                    |   |
| <i>Cystophora cristata</i> | Hooded seal           | Unsustainable fishing and harvesting aquatic resources - Bycatch; Prey depletion; Pollution - Industry and production; Climate Change - Ecological interactions and habitat change                                    | IUCN Status Vulnerable, decreasing population trend |                  | X                                | X                    |   |

| Species                           |                                    | <u>Pressure</u>  | <u>State</u>   | <u>Response</u>   | <u>Potential listing</u>         |                      | Comments |
|-----------------------------------|------------------------------------|--|--|-------------------|----------------------------------|----------------------|----------|
|                                   |                                    |  |  |                   | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                        | Common name                        |  |  |                   |                                  |                      |          |
| <i>Delphinus capensis</i>         | Long-beaked common dolphin         | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting   | IUCN Status Data Deficient                                     | CITES Appendix II |                                  | X                    |          |
| <i>Eschrichtius robustus</i>      | Grey whale (western subpopulation) | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Pollution - Industry and production, Prey depletion, Noise pollution;<br>Habitat loss and degradation - Energy production and mining, Infrastructure and service corridors, Destructive fishing practices;<br>Human Disturbance | IUCN Status Critically Endangered, increasing population trend | CITES Appendix I  | X                                | X                    |          |
| <i>Eumetopias jubatus</i>         | Steller sea lion                   | Unsustainable fishing and harvesting aquatic resources - Bycatch, Prey depletion   | IUCN Status Near Threatened, increasing population trend       |                   |                                  | X                    |          |
| <i>Feresa attenuata</i>           | Pygmy killer whale                 | Unsustainable fishing and harvesting aquatic resources - Prey depletion, Bycatch, Overharvesting;<br>Pollution - Noise pollution, Marine debris;<br>Human Disturbance;<br>Climate Change - Ecological interactions and habitat change  | IUCN Status Data Deficient                                     | CITES Appendix II |                                  | X                    |          |
| <i>Globicephala macrorhynchus</i> | Short-finned pilot whale           | Unsustainable fishing and harvesting aquatic resources - Overharvesting, Bycatch;<br>Illegal trade;<br>Pollution - Noise pollution;<br>Climate Change  | IUCN Status Data Deficient                                     | CITES Appendix II |                                  | X                    |          |

| Species                     |                                 | <u>Pressure</u>  | <u>State</u>               | <u>Response</u>   | <u>Potential listing</u>         |                      | Comments |
|-----------------------------|---------------------------------|--|----------------------------|-------------------|----------------------------------|----------------------|----------|
|                             |                                 |  |                            |                   | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                  | Common name                     |  |                            |                   |                                  |                      |          |
| <i>Kogia breviceps</i>      | Pygmy sperm whale               | Pollution - Noise pollution, Marine debris;<br>Climate Change;<br>Unsustainable fishing and harvesting<br>aquatic resources - Bycatch,<br>Overharvesting   | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |
| <i>Kogia sima</i>           | Dwarf sperm whale               | Unsustainable fishing and harvesting<br>aquatic resources - Bycatch,<br>Overharvesting;<br>Pollution - Noise pollution, Marine debris;<br>Climate Change   | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |
| <i>Lissodelphis peronii</i> | Southern right-whale<br>dolphin | Unsustainable fishing and harvesting<br>aquatic resources - Bycatch,<br>Overharvesting   | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |
| <i>Mesoplodon bidens</i>    | Sowerby's beaked<br>whale       | Unsustainable fishing and harvesting<br>aquatic resources - Bycatch,<br>Overharvesting;<br>Pollution - Noise pollution, Marine debris;<br>Climate Change - Ecological interactions<br>and habitat change | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |
| <i>Mesoplodon bowdoini</i>  | Andrews' beaked<br>whale        | Unsustainable fishing and harvesting<br>aquatic resources - Bycatch;<br>Pollution - Noise pollution, Marine debris;<br>Climate Change - Ecological interactions<br>and habitat change                    | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |

| Species                        |                           | <u>Pressure</u>   | <u>State</u>               | <u>Response</u>   | <u>Potential listing</u>         |                      | Comments |
|--------------------------------|---------------------------|---|----------------------------|-------------------|----------------------------------|----------------------|----------|
|                                |                           |   |                            |                   | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                     | Common name               |   |                            |                   |                                  |                      |          |
| <i>Mesoplodon carlhubbsi</i>   | Hubbs' beaked whale       | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Pollution - Noise pollution, Marine debris;<br>Climate Change - Ecological interactions and habitat change | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |
| <i>Mesoplodon densirostris</i> | Blainville's beaked whale | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Pollution - Marine debris, Noise pollution;<br>Climate Change - Ecological interactions and habitat change | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |
| <i>Mesoplodon europaeus</i>    | Gervais' beaked whale     | Unsustainable fishing and harvesting aquatic resources - Bycatch;<br>Pollution - Noise pollution, Marine debris;<br>Climate Change - Ecological interactions and habitat change                 | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |
| <i>Mesoplodon ginkgodens</i>   | Ginkgo-toothed whale      | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Pollution - Noise pollution, Marine debris;<br>Climate Change - Ecological interactions and habitat change | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |

| Species                      |                       | <u>Pressure</u>   | <u>State</u>               | <u>Response</u>   | <u>Potential listing</u>         |                      | Comments |
|------------------------------|-----------------------|---|----------------------------|-------------------|----------------------------------|----------------------|----------|
|                              |                       |   |                            |                   | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                   | Common name           |   |                            |                   |                                  |                      |          |
| <i>Mesoplodon grayi</i>      | Gray's beaked whale   | Unsustainable fishing and harvesting aquatic resources - Bycatch;<br>Pollution - Noise pollution, Marine debris;<br>Climate Change - Ecological interactions and habitat change | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |
| <i>Mesoplodon hectori</i>    | Hector's beaked whale | Unsustainable fishing and harvesting aquatic resources - Bycatch;<br>Pollution - Noise pollution, Marine debris;<br>Climate Change - Ecological interactions and habitat change | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |
| <i>Mesoplodon layardii</i>   | Layard's beaked whale | Unsustainable fishing and harvesting aquatic resources - Bycatch;<br>Pollution - Noise pollution, Marine debris;<br>Climate Change - Ecological interactions and habitat change | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |
| <i>Mesoplodon mirus</i>      | True's beaked whale   | Unsustainable fishing and harvesting aquatic resources - Bycatch;<br>Pollution - Noise pollution, Marine debris;<br>Climate Change - Ecological interactions and habitat change | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |
| <i>Mesoplodon peruvianus</i> | Pygmy whale           | Unsustainable fishing and harvesting aquatic resources - Bycatch;<br>Pollution - Noise pollution, Marine debris;<br>Climate Change - Ecological interactions and habitat change | IUCN Status Data Deficient | CITES Appendix II |                                  | X                    |          |

| Species                      |                          | <u>Pressure</u>   | <u>State</u>  | <u>Response</u>      | <u>Potential listing</u> |         | Comments |
|------------------------------|--------------------------|---|---|----------------------|--------------------------|---------|----------|
| Latin name                   | Common name              |   | IUCN Status,<br>Population trend                    | CMS, CITES<br>Status | App. I                   | App. II |          |
| <i>Mesoplodon stejnegeri</i> | Stejneger's beaked whale | Unsustainable fishing and harvesting aquatic resources - Bycatch;<br>Pollution - Noise pollution, Marine debris;<br>Climate Change - Ecological interactions and habitat change   | IUCN Status Data Deficient                          | CITES Appendix II    |                          | X       |          |
| <i>Phoca caspica</i>         | Caspian seal             | Unsustainable fishing and harvesting aquatic - Overharvesting, Bycatch, Prey depletion;<br>Invasive Species - Competition;<br>Diseases;<br>Climate Change – Ocean temperature, Altered weather patterns, Ecological interactions and habitat change;<br>Habitat loss and degradation - Energy production and mining, Residential and commercial development;<br>Human Disturbance - Work and other activities, Recreational activities;<br>Unsustainable hunting and trapping | IUCN Status Endangered, decreasing population trend |                      | X                        | X       |          |

| Species                     |                                  | <u>Pressure</u>   | <u>State</u>  | <u>Response</u>                   | <u>Potential listing</u> |         | Comments  |
|-----------------------------|----------------------------------|---|---|-----------------------------------|--------------------------|---------|---|
| Latin name                  | Common name                      |   | IUCN Status,<br>Population trend                    | CMS, CITES<br>Status              | App. I                   | App. II |   |
| <i>Sousa chinensis</i>      | Indo-pacific Hump-backed Dolphin | Unsustainable fishing and harvesting aquatic resources - Bycatch;<br>Pollution - Industry and production, Noise pollution;<br>Human Disturbance - Work and other activities;<br>Habitat loss and degradation - Residential and commercial development | IUCN Status Endangered, decreasing population trend | CITES Appendix I, CMS Appendix II | X                        | X       | listed on CMS Appendix II, could be uplisted;<br>Eastern Taiwan Strait subpopulation is Critically Endangered and has a decreasing population trend |
| <i>Stenella frontalis</i>   | Atlantic spotted dolphin         | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting  | IUCN Status Data Deficient                          | CITES Appendix II                 |                          | X       |   |
| <i>Tasmacetus shepherdi</i> | Tasman beaked whale              | Pollution - Noise pollution, Marine debris; Climate Change  | IUCN Status Data Deficient                          | CITES Appendix II                 |                          | X       |   |
| <i>Pseudorca crassidens</i> | False killer whale               | Human wildlife conflict;<br>Unsustainable fishing and harvesting aquatic resources - Overharvesting, Prey depletion, Bycatch;<br>Illegal trade;<br>Pollution - Noise pollution, Marine debris; Climate Change   | IUCN Status Data Deficient                          | CITES Appendix II                 |                          | X       |   |

| Species                      |              | <u>Pressure</u>   | <u>State</u>                     | <u>Response</u>              | <u>Potential listing</u> |         | Comments  |
|------------------------------|--------------|---|----------------------------------|------------------------------|--------------------------|---------|---|
| Latin name                   | Common name  |   | IUCN Status,<br>Population trend | CMS, CITES<br>Status         | App. I                   | App. II |   |
| <i>Delphinapterus leucas</i> | Beluga whale | Pollution - Industry and production;<br>Unsustainable fishing and harvesting<br>aquatic resources - Overharvesting,<br>Bycatch;<br>Human Disturbance - Work and other<br>activities;<br>Habitat loss and degradation - River<br>Damming, Energy production and<br>mining;<br>Climate Change – Altered weather<br>patterns, Ecological interactions and<br>habitat change, Ocean<br>temperature          | IUCN Status Near<br>Threatened   | CITES and CMS<br>Appendix II | X                        | X       | listed on CMS<br>Appendix II, could be<br>uplisted. A proposal is<br>under preparation.   |
| <i>Orcinus orca</i>          | Killer whale | Climate Change - Ecological interactions<br>and habitat change;<br>Human wildlife conflict;<br>Unsustainable fishing and harvesting<br>aquatic resources - Overharvesting, Prey<br>depletion, Bycatch;<br>Pollution - Industry and production, Noise<br>pollution;<br>Human Disturbance - Recreational<br>activities;<br>Habitat loss and degradation - Energy<br>production and mining, Prey depletion | IUCN Status Data Deficient       | CITES and CMS<br>Appendix II | X                        | X       | currently listed on App.<br>II, proposal for uplisting<br>concerning the<br>populations in the<br>North East Atlantic and<br>the transient population<br>in the North West<br>Pacific, North Pacific<br>residents discussed for<br>listing at ScC17 |



| Species   |                       | <u>Pressure</u>   | <u>State</u>  | <u>Response</u>           | <u>Potential listing</u>         |                      | Comments  |
|---|-----------------------|---|---|---------------------------|----------------------------------|----------------------|---|
|   |                       |   |   |                           | IUCN Status,<br>Population trend | CMS, CITES<br>Status |   |
| Latin name  | Common name           |   |   |                           |                                  |                      |   |
| <i>Ziphius cavirostris</i><br>(Mediterranean subpopulation) | Cuvier's Beaked Whale | Unsustainable fishing and harvesting aquatic resources - Bycatch;<br>Pollution - Noise pollution, Marine debris   | IUCN Status Data Deficient  | CITES Appendix II         | X                                | X                    | proposal for listing, only concerning Mediterranean subpopulation, listing discussed at ScC16 & ScC17 |
| <i>Monodon monoceros</i>                                    | Narwhale              | Climate Change – Altered weather patterns, Ecological interactions and habitat change, Ocean temperature;<br>Unsustainable fishing and harvesting aquatic resources – Overharvesting;<br>Human Disturbance - Work and other activities;<br>Habitat loss and degradation - Energy production and mining, Bycatch;<br>Illegal trade | IUCN Status Near Threatened                                       | CITES and CMS Appendix II | X                                | X                    | currently listed on App. II, proposal for uplisting, discussed at ScC17                               |
| <b>Aves</b>   |                       |   |   |                           |                                  |                      |   |
| <i>Tadorna cristata</i>                                     | Crested Shelduck      | Habitat loss and degradation - Infrastructure and service corridors;<br>Human Disturbance - Work and other activities   | IUCN Status Critically Endangered                                 |                           | X                                | X                    | listed on CMS Appendix II, could be uplisted  |
| <i>Pseudobulweria becki</i>                                 | Beck's Petrel         | Invasive Species - Predators  | IUCN Status Critically Endangered,<br>decreasing population trend |                           | X                                | X                    |   |

| Species                        |                             | <u>Pressure</u>  | <u>State</u>   | <u>Response</u>         | <u>Potential listing</u> |         | Comments |
|--------------------------------|-----------------------------|--|--|-------------------------|--------------------------|---------|----------|
| Latin name                     | Common name                 |  | IUCN Status,<br>Population trend                                   | CMS, CITES<br>Status    | App. I                   | App. II |          |
| <i>Puffinus auricularis</i>    | Townsend's Shearwater       | Invasive Species - Predators, Destructive behaviour;<br>Habitat loss and degradation - Infrastructure and service corridors;<br>Climate Change - Sea level rise  | IUCN Status Critically Endangered,<br>decreasing population trend  |                         | X                        | X       |          |
| <i>Houbaropsis bengalensis</i> | Bengal Florican             | Habitat loss and degradation - Agriculture;<br>Invasive Species - Predators, Destructive behaviour;<br>Human Disturbance   | IUCN Status Critically Endangered,<br>decreasing population trend, | CITES Appendix I and II | X                        | X       |          |
| <i>Vermivora bachmanii</i>     | Bachman's Warbler           | Habitat loss and degradation - Agriculture;<br>Human Disturbance - Work and other activities   | IUCN Status Critically Endangered                                  |                         | X                        | X       |          |
| <i>Eudyptes moseleyi</i>       | Northern Rockhopper Penguin | Human Disturbance;<br>Invasive Species - Predators;<br>Unsustainable fishing and harvesting aquatic resources - Prey depletion;<br>Climate Change - Ecological interactions and habitat change;<br>Pollution - Agriculture and hunting/fishing, Tourism, Light pollution | IUCN Status Endangered,<br>decreasing population trend             |                         | X                        | X       |          |
| <i>Pterodroma baraui</i>       | Barau's Petrel              | Invasive Species - Predators;<br>Human Disturbance - Work and other activities, Recreational activities;<br>Climate Change - Altered weather patterns  | IUCN Status Endangered,<br>decreasing population trend             |                         | X                        | X       |          |

| Species                        |                                 | <u>Pressure</u>   | <u>State</u>   | <u>Response</u>      | <u>Potential listing</u> |         | Comments |
|--------------------------------|---------------------------------|---|--|----------------------|--------------------------|---------|----------|
| Latin name                     | Common name                     |   | IUCN Status,<br>Population trend                       | CMS, CITES<br>Status | App. I                   | App. II |          |
| <i>Pterodroma alba</i>         | Phoenix Petrel                  | Invasive Species - Predators;<br>Unsustainable hunting and trapping   | IUCN Status Endangered,<br>decreasing population trend |                      | X                        | X       |          |
| <i>Pterodroma hasitata</i>     | Black-capped Petrel             | Habitat loss and degradation;<br>Unsustainable hunting and trapping ;<br>Pollution - Light pollution;<br>Habitat loss and degradation -<br>Residential and commercial<br>development;<br>Human Disturbance - Work and other<br>activities | IUCN Status Endangered,<br>decreasing population trend |                      | X                        | X       |          |
| <i>Pterodroma incerta</i>      | Atlantic Petrel                 | Climate Change - Extreme weather;<br>Invasive Species - Predators;<br>Pollution - Light pollution;<br>Unsustainable hunting and trapping  | IUCN Status Endangered,<br>decreasing population trend |                      | X                        | X       |          |
| <i>Puffinus huttoni</i>        | Hutton's Shearwater             | Unsustainable fishing and harvesting<br>aquatic resources - Prey depletion;<br>Habitat loss and degradation;<br>Invasive Species - Predators, Destructive<br>behaviour;<br>Climate Change - Ecological interactions<br>and habitat change | IUCN Status Endangered,<br>stable population trend     |                      | X                        | X       |          |
| <i>Nesofregatta fuliginosa</i> | White-throated Storm-<br>petrel | Invasive Species - Predators;<br>Human Disturbance;<br>Habitat loss and degradation   | IUCN Status Endangered,<br>decreasing population trend |                      | X                        | X       |          |

| Species                      |                         | <u>Pressure</u>   | <u>State</u>  | <u>Response</u>      | <u>Potential listing</u> |         | Comments |
|------------------------------|-------------------------|---|---|----------------------|--------------------------|---------|----------|
| Latin name                   | Common name             |   | IUCN Status,<br>Population trend                                  | CMS, CITES<br>Status | App. I                   | App. II |          |
| <i>Oceanodroma homochroa</i> | Ashy Storm-petrel       | Pollution - Industry and production, Light pollution;<br>Invasive Species - Predators;<br>Human Disturbance - Recreational activities;<br>Climate Change - Ocean acidification;<br>Sea level rise | IUCN Status Endangered,<br>decreasing population trend            |                      | X                        | X       |          |
| <i>Podiceps gallardoi</i>    | Hooded Grebe            | Climate Change;<br>Invasive Species;<br>Habitat loss and degradation - Agriculture;<br>Human Disturbance - Work and other activities  | IUCN Status Critically Endangered,<br>decreasing population trend |                      | X                        | X       |          |
| <i>Ciconia stormi</i>        | Storm's Stork           | Habitat loss and degradation - Logging and unsustainable harvesting,<br>Agriculture, Infrastructure and service corridors   | IUCN Status Endangered,<br>decreasing population trend            |                      | X                        | X       |          |
| <i>Leptoptilos dubius</i>    | Greater Adjutant        | Habitat loss and degradation;<br>Human Disturbance - Agriculture and aquaculture, Logging and unsustainable harvesting;<br>Pollution;<br>Diseases   | IUCN Status Endangered,<br>decreasing population trend            |                      | X                        | X       |          |
| <i>Gorsachius magnificus</i> | White-eared Night-heron | Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting, Infrastructure and service corridors;<br>Unsustainable hunting and trapping;<br>Human Disturbance               | IUCN Status Endangered,<br>decreasing population trend            |                      | X                        | X       |          |
| <i>Syphetides indicus</i>    | Lesser Frorican         | Unsustainable hunting and trapping;<br>Invasive Species - Destructive behaviour;<br>Habitat loss and degradation - Agriculture  | IUCN Status Endangered,<br>decreasing population trend,           | CITES Appendix II    | X                        | X       |          |

| Species                           |                           | <u>Pressure</u>   | <u>State</u>  | <u>Response</u>            | <u>Potential listing</u>         |                      | Comments |
|-----------------------------------|---------------------------|---|---|----------------------------|----------------------------------|----------------------|----------|
|                                   |                           |   |   |                            | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                        | Common name               |   |   |                            |                                  |                      |          |
| <i>Anodorhynchus hyacinthinus</i> | Hyacinth Macaw            | Illegal trade;<br>Habitat loss and degradation -<br>Agriculture   | IUCN Status Endangered,<br>decreasing population trend, | CITES Appendix I<br>and II | X                                | X                    |          |
| <i>Rhynchopsitta pachyrhyncha</i> | Thick-billed Parrot       | Habitat loss and degradation -<br>Agriculture, Logging and unsustainable<br>harvesting;<br>Illegal trade  | IUCN Status Endangered,<br>decreasing population trend, | CITES Appendix I<br>and II | X                                | X                    |          |
| <i>Aratinga solstitialis</i>      | Sun Parakeet              | Unsustainable hunting and trapping;<br>Illegal trade  | IUCN Status Endangered,<br>decreasing population trend, | CITES Appendix I           | X                                | X                    |          |
| <i>Amazona vinacea</i>            | Vinaceous Amazon          | Habitat loss and degradation - Logging<br>and unsustainable harvesting;<br>Illegal trade                  | IUCN Status Endangered,<br>decreasing population trend, | CITES Appendix I<br>and II | X                                | X                    |          |
| <i>Tachycineta cyaneoviridis</i>  | Bahama Swallow            | Habitat loss and degradation - Logging<br>and unsustainable harvesting;<br>Invasive Species - Concurrence | IUCN Status Endangered,<br>increasing population trend  |                            | X                                | X                    |          |
| <i>Dendroica chrysoparia</i>      | Golden-cheeked<br>Warbler | Habitat loss and degradation -<br>Agriculture, Logging and unsustainable<br>harvesting                    | IUCN Status Endangered,<br>decreasing population trend  |                            | X                                | X                    |          |

| Species                        |                             | <u>Pressure</u>  | <u>State</u>   | <u>Response</u>      | <u>Potential listing</u> |         | Comments |
|--------------------------------|-----------------------------|--|--|----------------------|--------------------------|---------|----------|
|                                |                             |  | IUCN Status,<br>Population trend                     | CMS, CITES<br>Status | App. I                   | App. II |          |
| Latin name                     | Common name                 |  |  |                      |                          |         |          |
| <i>Tragopan melanocephalus</i> | Western Tragopan            | Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting;<br>Unsustainable hunting and trapping  | IUCN Status Vulnerable, decreasing population trend, | CITES Appendix I     |                          | X       |          |
| <i>Tragopan blythii</i>        | Blyth's Tragopan            | Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting;<br>Unsustainable hunting and trapping  | IUCN Status Vulnerable, decreasing population trend, | CITES Appendix I     |                          | X       |          |
| <i>Lophophorus sclateri</i>    | Sclater's Monal             | Unsustainable hunting and trapping;<br>Habitat loss and degradation - Logging and unsustainable harvesting (locally)   | IUCN Status Vulnerable, decreasing population trend, | CITES Appendix I     |                          | X       |          |
| <i>Eudyptes chrysocome</i>     | Southern Rockhopper Penguin | Unsustainable hunting and trapping;<br>Invasive species - Destructive behaviour;<br>Human Disturbance - Work and other activities;<br>Climate Change -Ecological interactions and habitat change;<br>Unsustainable fishing and harvesting aquatic resources - Prey depletion | IUCN Status Vulnerable, decreasing population trend  |                      |                          | X       |          |
| <i>Eudyptes chrysolophus</i>   | Macaroni Penguin            | Unsustainable fishing and harvesting aquatic resources;<br>Diseases;<br>Climate Change - Ocean temperature   | IUCN Status Vulnerable, decreasing population trend  |                      |                          | X       |          |

| Species                        |                       | <u>Pressure</u>  | <u>State</u>   | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |        |
|--------------------------------|-----------------------|--|--|-----------------|----------------------------------|----------------------|----------|--------|
|                                |                       |  |  |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I |
| Latin name                     | Common name           |  |  |                 |                                  |                      |          |        |
| <i>Pterodroma externa</i>      | Juan Fernandez Petrel | Invasive species - Destructive behaviour;<br>Human Disturbance - Work and other activities;<br>Pollution - Light pollution;<br>Climate Change - Ecological interactions and habitat change | IUCN Status Vulnerable,<br>stable population trend     |                 |                                  |                      | X        |        |
| <i>Pterodroma pycrofti</i>     | Pycroft's Petrel      | Climate Change -Ecological interactions and habitat change;<br>Other   | IUCN Status Vulnerable,<br>increasing population trend |                 |                                  |                      | X        |        |
| <i>Pterodroma longirostris</i> | Stejneger's Petrel    | Invasive species - Destructive behaviour, Predators;<br>Human Disturbance - Work and other activities;<br>Climate Change -Ecological interactions and habitat change                       | IUCN Status Vulnerable,<br>stable population trend     |                 |                                  |                      | X        |        |
| <i>Pterodroma leucoptera</i>   | Gould's Petrel        | Invasive species - Destructive behaviour, Predators;<br>Pollution - Light pollution;<br>Habitat loss and degradation - Residential and commercial development                              | IUCN Status Vulnerable,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Pterodroma cookii</i>       | Cook's Petrel         | Invasive species - Destructive behaviour, Predators;<br>Climate Change -Ecological interactions and habitat change   | IUCN Status Vulnerable,<br>increasing population trend |                 |                                  |                      | X        |        |
| <i>Pterodroma cervicalis</i>   | White-necked Petrel   | Invasive species - Destructive behaviour, Predators;<br>Climate Change -Ecological interactions and habitat change   | IUCN Status Vulnerable,<br>increasing population trend |                 |                                  |                      | X        |        |

| Species                      |                         | <u>Pressure</u>   | <u>State</u>   | <u>Response</u>   | <u>Potential listing</u>         |                      | Comments |
|------------------------------|-------------------------|---|--|-------------------|----------------------------------|----------------------|----------|
|                              |                         |   |  |                   | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                   | Common name             |   |  |                   |                                  |                      |          |
| <i>Puffinus bulleri</i>      | Buller's Shearwater     | Unsustainable fishing and harvesting aquatic resources - Bycatch, Prey depletion;<br>Climate Change -Ecological interactions and habitat change   | IUCN Status Vulnerable, stable population trend      |                   |                                  |                      | X        |
| <i>Puffinus heinrothi</i>    | Heinroth's Shearwater   | Invasive Species - Predators  | IUCN Status Vulnerable, stable population trend      |                   |                                  |                      | X        |
| <i>Mycteria cinerea</i>      | Milky Stork             | Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting;<br>Unsustainable hunting and trapping   | IUCN Status Vulnerable, decreasing population trend, | CITES Appendix I  |                                  |                      | X        |
| <i>Leptoptilos javanicus</i> | Lesser Adjutant         | Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting, Destructive fishing practices;<br>Unsustainable hunting and trapping  | IUCN Status Vulnerable, decreasing population trend  |                   |                                  |                      | X        |
| <i>Geronticus calvus</i>     | Southern Bald Ibis      | Habitat loss and degradation - Changes in land-use management, Agriculture, Energy production and mining;<br>Unsustainable hunting and trapping;<br>Pollution - Agriculture and hunting/fishing           | IUCN Status Vulnerable, decreasing population trend, | CITES Appendix II |                                  |                      | X        |
| <i>Circaetus beaudouini</i>  | Beaudouin's Snake-eagle | Human Disturbance - Population growth;<br>Habitat loss and degradation - Agriculture, Residential and commercial development, Logging and unsustainable harvesting;<br>Unsustainable hunting and trapping | IUCN Status Vulnerable, decreasing population trend  |                   |                                  |                      | X        |



| Species                       |                      | <u>Pressure</u>   | <u>State</u>  | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |
|-------------------------------|----------------------|---|---|-----------------|----------------------------------|----------------------|----------|
|                               |                      |   |   |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                    | Common name          |   |   |                 |                                  |                      |          |
| <i>Coturnicops exquisitus</i> | Swinhoe's Rail       | Habitat loss and degradation - Changes in land-use management, Agriculture, Energy production and mining ; Unsustainable hunting and trapping   | IUCN Status Vulnerable, decreasing population trend |                 |                                  |                      | X        |
| <i>Rallus antarcticus</i>     | Austral Rail         | Habitat loss and degradation - Agriculture  | IUCN Status Vulnerable, decreasing population trend |                 |                                  |                      | X        |
| <i>Rissa brevirostris</i>     | Red-legged Kittiwake | Unsustainable fishing and harvesting aquatic resources - Prey depletion; Climate Change -Ecological interactions and habitat change   | IUCN Status Vulnerable, decreasing population trend |                 |                                  |                      | X        |
| <i>Rynchops albigollis</i>    | Indian Skimmer       | Habitat loss and degradation - Agriculture, Energy production and mining, Infrastructure and service corridors, Changes in land-use management; Human Disturbance - Work and other activities; Invasive Species - Destructive behaviour | IUCN Status Vulnerable, decreasing population trend |                 |                                  |                      | X        |
| <i>Columba eversmanni</i>     | Pale-backed Pigeon   | Unsustainable hunting and trapping; Habitat loss and degradation - Agriculture  | IUCN Status Vulnerable, decreasing population trend |                 |                                  |                      | X        |
| <i>Patagioenas oenops</i>     | Peruvian Pigeon      | Unsustainable hunting and trapping; Habitat loss and degradation - Logging and unsustainable harvesting; Human Disturbance - Population growth  | IUCN Status Vulnerable, decreasing population trend |                 |                                  |                      | X        |

| Species                          |                        | <u>Pressure</u>  | <u>State</u>  | <u>Response</u>         | <u>Potential listing</u>         |                      | Comments |
|----------------------------------|------------------------|--|---|-------------------------|----------------------------------|----------------------|----------|
|                                  |                        |  |   |                         | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                       | Common name            |  |   |                         |                                  |                      |          |
| <i>Leptotila ochraceiventris</i> | Ochre-bellied Dove     | Habitat loss and degradation - Logging and unsustainable harvesting;<br>Unsustainable hunting and trapping   | IUCN Status Vulnerable,<br>decreasing population trend  |                         |                                  |                      | X        |
| <i>Ducula pickeringii</i>        | Grey Imperial-pigeon   | Habitat loss and degradation - Agriculture;<br>Unsustainable hunting and trapping;<br>Human Disturbance - Recreational activities;<br>Invasive Species - Predators | IUCN Status Vulnerable,<br>decreasing population trend  |                         |                                  |                      | X        |
| <i>Chamosyna palmarum</i>        | Palm Lorikeet          | Diseases;<br>Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting  | IUCN Status Vulnerable,<br>decreasing population trend, | CITES Appendix II       |                                  |                      | X        |
| <i>Ara militaris</i>             | Military Macaw         | Illegal trade;<br>Habitat loss and degradation - Logging and unsustainable harvesting, Changes in land-use management  | IUCN Status Vulnerable,<br>decreasing population trend, | CITES Appendix I and II |                                  |                      | X        |
| <i>Leptosittaca branickii</i>    | Golden-plumed Parakeet | Habitat loss and degradation -Logging and unsustainable harvesting, Energy production and mining, Agriculture;<br>Unsustainable hunting and trapping               | IUCN Status Vulnerable,<br>decreasing population trend, | CITES Appendix II       |                                  |                      | X        |
| <i>Touit costaricensis</i>       | Red-fronted Parrotlet  | Habitat loss and degradation -Logging and unsustainable harvesting, Agriculture, Residential and commercial development  | IUCN Status Vulnerable,<br>decreasing population trend, | CITES Appendix II       |                                  |                      | X        |

| Species                         |                        | <u>Pressure</u>   | <u>State</u>   | <u>Response</u>         | <u>Potential listing</u>         |                      | Comments |
|---------------------------------|------------------------|---|--|-------------------------|----------------------------------|----------------------|----------|
|                                 |                        |   |  |                         | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                      | Common name            |   |  |                         |                                  |                      |          |
| <i>Hapalopsittaca pyrrhops</i>  | Red-faced Parrot       | Habitat loss and degradation -Logging and unsustainable harvesting, Agriculture   | IUCN Status Vulnerable, decreasing population trend, | CITES Appendix II       |                                  | X                    |          |
| <i>Amazona pretrei</i>          | Red-spectacled Amazon  | Habitat loss and degradation - Logging and unsustainable harvesting, Agriculture; Illegal trade   | IUCN Status Vulnerable, decreasing population trend, | CITES Appendix I and II |                                  | X                    |          |
| <i>Apus acuticauda</i>          | Dark-rumped Swift      | Habitat loss and degradation  | IUCN Status Vulnerable, stable population trend      |                         |                                  | X                    |          |
| <i>Dendrocopos doraе</i>        | Arabian Woodpecker     | Habitat loss and degradation - Agriculture, Energy production and mining, Logging and unsustainable harvesting  | IUCN Status Vulnerable, decreasing population trend  |                         |                                  | X                    |          |
| <i>Pitta nympha</i>             | Fairy Pitta            | Habitat loss and degradation - Logging and unsustainable harvesting, Energy production and mining, Agriculture; Human Disturbance - Recreational activities; Unsustainable hunting and trapping | IUCN Status Vulnerable, decreasing population trend, | CITES Appendix II       |                                  | X                    |          |
| <i>Piprites pileata</i>         | Black-capped Piprites  | Habitat loss and degradation - Logging and unsustainable harvesting, Agriculture  | IUCN Status Vulnerable, decreasing population trend  |                         |                                  | X                    |          |
| <i>Procnias tricarunculatus</i> | Three-wattled Bellbird | Habitat loss and degradation - Logging and unsustainable harvesting, Agriculture  | IUCN Status Vulnerable, decreasing population trend  |                         |                                  | X                    |          |

| Species                           |                             | <u>Pressure</u>   | <u>State</u>   | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |        |
|-----------------------------------|-----------------------------|---|--|-----------------|----------------------------------|----------------------|----------|--------|
|                                   |                             |   |  |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I |
| Latin name                        | Common name                 |   |  |                 |                                  |                      |          |        |
| <i>Procnias nudicollis</i>        | Bare-throated Bellbird      | Unsustainable hunting and trapping;<br>Habitat loss and degradation -<br>Agriculture, Energy production and<br>mining, Infrastructure and service<br>corridors, Logging and unsustainable<br>harvesting | IUCN Status Vulnerable,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Cephalopterus glabricollis</i> | Bare-necked<br>Umbrellabird | Habitat loss and degradation - Logging<br>and unsustainable harvesting,<br>Agriculture  | IUCN Status Endangered,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Xolmis dominicanus</i>         | Black-and-white<br>Monjita  | Habitat loss and degradation -<br>Agriculture, Changes in land-use<br>management  | IUCN Status Vulnerable,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Vireo atricapilla</i>          | Black-capped Vireo          | Habitat loss and degradation -<br>Agriculture; Residential and commercial<br>development  | IUCN Status Vulnerable,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Oriolus mellianus</i>          | Silver Oriole               | Habitat loss and degradation - Logging<br>and unsustainable harvesting,<br>Agriculture;<br>Unsustainable hunting and trapping   | IUCN Status Vulnerable,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Chaetornis striata</i>         | Bristled Grassbird          | Habitat loss and degradation -<br>Agriculture, Energy production and<br>mining; Logging and unsustainable<br>harvesting   | IUCN Status Vulnerable,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Sitta formosa</i>              | Beautiful Nuthatch          | Habitat loss and degradation - Logging<br>and unsustainable harvesting;<br>Unsustainable hunting and trapping   | IUCN Status Vulnerable,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Toxostoma bendirei</i>         | Bendire's Thrasher          | Habitat loss and degradation -<br>Agriculture, Residential and commercial<br>development  | IUCN Status Vulnerable,<br>decreasing population trend |                 |                                  |                      | X        |        |

| Species                        |                        | <u>Pressure</u>  | <u>State</u>   | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |        |
|--------------------------------|------------------------|--|--|-----------------|----------------------------------|----------------------|----------|--------|
|                                |                        |  |  |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I |
| Latin name                     | Common name            |  |  |                 |                                  |                      |          |        |
| <i>Cinclus schulzi</i>         | Rufous-throated Dipper | Habitat loss and degradation - Energy production and mining, Agriculture, Logging and unsustainable harvesting; Invasive Species                   | IUCN Status Vulnerable, decreasing population trend      |                 |                                  |                      | X        |        |
| <i>Anthus spragueii</i>        | Sprague's Pipit        | Habitat loss and degradation - Agriculture, Energy production and mining; Invasive Species - Destructive behaviour                                 | IUCN Status Vulnerable, decreasing population trend      |                 |                                  |                      | X        |        |
| <i>Euphagus carolinus</i>      | Rusty Blackbird        | Habitat loss and degradation - Energy production and mining; Climate Change - Changes in precipitation, Ecological interactions and habitat change | IUCN Status Vulnerable, decreasing population trend      |                 |                                  |                      | X        |        |
| <i>Sturnella defilippii</i>    | Pampas Meadowlark      | Habitat loss and degradation - Agriculture   | IUCN Status Vulnerable, decreasing population trend      |                 |                                  |                      | X        |        |
| <i>Emberiza sulphurata</i>     | Yellow Bunting         | Habitat loss and degradation - Agriculture; Unsustainable hunting and trapping   | IUCN Status Vulnerable, decreasing population trend      |                 |                                  |                      | X        |        |
| <i>Conirostrum tamarugense</i> | Tamarugo Conebill      | Habitat loss and degradation - Agriculture; Human Disturbance - Work and other activities  | IUCN Status Vulnerable, increasing population trend      |                 |                                  |                      | X        |        |
| <i>Coturnix japonica</i>       | Japanese Quail         | Habitat loss and degradation - Agriculture; Unsustainable hunting and trapping   | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Tragopan satyra</i>         | Satyr Tragopan         | Unsustainable hunting and trapping; Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting                               | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |

| Species                        |                    | <u>Pressure</u>   | <u>State</u>  | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |        |
|--------------------------------|--------------------|---|---|-----------------|----------------------------------|----------------------|----------|--------|
|                                |                    |   |   |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I |
| Latin name                     | Common name        |   |   |                 |                                  |                      |          |        |
| <i>Specularnas specularis</i>  | Spectacled Duck    | Human Disturbance - Recreational activities;<br>Habitat loss and degradation - Agriculture  | IUCN Status Near Threatened,<br>stable population trend     |                 |                                  |                      | X        |        |
| <i>Pygoscelis papua</i>        | Gentoo Penguin     | Human Disturbance - Recreational activities, Work and other activities  | IUCN Status Near Threatened,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Spheniscus magellanicus</i> | Magellanic Penguin | Habitat loss and degradation - Energy production and mining;<br>Unsustainable fishing and harvesting aquatic resources - Bycatch, Prey depletion;<br>Invasive Species - Predators;<br>Climate Change - Changes in precipitation;<br>Human Disturbance - Recreational activities | IUCN Status Near Threatened,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Pterodroma feae</i>         | Fea's Petrel       | Unsustainable hunting and trapping;<br>Invasive Species - Predators, Destructive behaviour  | IUCN Status Near Threatened,<br>increasing population trend |                 |                                  |                      | X        |        |
| <i>Pterodroma ultima</i>       | Murphy's Petrel    | Invasive Species - Predators;<br>Climate Change - Altered weather patterns, Ecological interactions and habitat change  | IUCN Status Near Threatened,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Pterodroma inexpectata</i>  | Mottled Petrel     | Invasive Species - Competition, Predators   | IUCN Status Near Threatened,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Pseudobulweria rostrata</i> | Tahiti Petrel      | Invasive Species - Predators;<br>Habitat loss and degradation - Energy production and mining;<br>Unsustainable hunting and trapping   | IUCN Status Near Threatened,<br>decreasing population trend |                 |                                  |                      | X        |        |

| Species                                |                            | <u>Pressure</u>  | <u>State</u>   | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |
|--|----------------------------|--|--|-----------------|----------------------------------|----------------------|----------|
|  |                            |  |  |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                             | Common name                |  |  |                 |                                  |                      |          |
| <i>Puffinus griseus</i>                | Sooty Shearwater           | Unsustainable hunting and trapping;<br>Invasive Species - Predators  | IUCN Status Near<br>Threatened,<br>decreasing population trend |                 |                                  |                      | X        |
| <i>Puffinus yelkouan</i>               | Yelkouan Shearwater        | Unsustainable fishing and harvesting<br>aquatic resources - Bycatch;<br>Invasive Species - Predators   | IUCN Status Vulnerable,<br>decreasing population trend         |                 |                                  |                      | X        |
| <i>Puffinus opisthomelas</i>           | Black-vented<br>Shearwater | Habitat loss and degradation -<br>Infrastructure and service corridors;<br>Pollution - Light pollution;<br>Invasive Species - Predators  | IUCN Status Near<br>Threatened                                 |                 |                                  |                      | X        |
| <i>Bulweria fallax</i>                 | Jouanin's Petrel           | Other  | IUCN Status Near<br>Threatened,<br>increasing population trend |                 |                                  |                      | X        |
| <i>Threskiornis<br/>melanocephalus</i> | Black-headed Ibis          | Habitat loss and degradation -<br>Agriculture;<br>Human Disturbance;<br>Unsustainable hunting and trapping   | IUCN Status Near<br>Threatened,<br>decreasing population trend |                 |                                  |                      | X        |
| <i>Egretta rufescens</i>               | Reddish Egret              | Other;<br>Habitat loss and degradation   | IUCN Status Near<br>Threatened,<br>increasing population trend |                 |                                  |                      | X        |
| <i>Pelecanus philippensis</i>          | Spot-billed Pelican        | Habitat loss and degradation - Logging<br>and unsustainable harvesting, Prey/Food<br>depletion, Agriculture, Aquaculture;<br>Invasive Species - Destructive<br>behaviour;<br>Unsustainable hunting and trapping;<br>Unsustainable fishing and harvesting<br>aquatic resources - Prey depletion | IUCN Status Near<br>Threatened,<br>decreasing population trend |                 |                                  |                      | X        |

| Species                       |                    | <u>Pressure</u>  | <u>State</u>  | <u>Response</u>   | <u>Potential listing</u>         |                      | Comments |        |
|-------------------------------|--------------------|--|---|-------------------|----------------------------------|----------------------|----------|--------|
|                               |                    |  |   |                   | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I |
| Latin name                    | Common name        |  |   |                   |                                  |                      |          |        |
| <i>Pelecanus thagus</i>       | Peruvian Pelican   | Human Disturbance - Work and other activities, Recreational activities   | IUCN Status Near Threatened, increasing population trend  |                   |                                  |                      | X        |        |
| <i>Neotis denhami</i>         | Denham's Bustard   | Unsustainable hunting and trapping; Habitat loss and degradation - Agriculture, Energy production and mining   | IUCN Status Near Threatened, decreasing population trend, | CITES Appendix II |                                  |                      | X        |        |
| <i>Tetrax tetrax</i>          | Little Bustard     | Habitat loss and degradation - Agriculture, Energy production and mining, Prey/Food depletion; Unsustainable hunting and trapping; Climate Change - Altered weather patterns | IUCN Status Near Threatened, decreasing population trend, | CITES Appendix II |                                  |                      | X        |        |
| <i>Laterallus jamaicensis</i> | Black Rail         | Habitat loss and degradation - Agriculture; Pollution  | IUCN Status Near Threatened, decreasing population trend  |                   |                                  |                      | X        |        |
| <i>Porzana paykullii</i>      | Band-bellied Crake | Habitat loss and degradation; Pollution - Agriculture and hunting/fishing, Industry and production   | IUCN Status Near Threatened, decreasing population trend  |                   |                                  |                      | X        |        |
| <i>Phegornis mitchellii</i>   | Diademed Plover    | Habitat loss and degradation; Climate Change - Altered weather patterns  | IUCN Status Near Threatened, decreasing population trend  |                   |                                  |                      | X        |        |
| <i>Larus heermanni</i>        | Heermann's Gull    | Climate Change - Ecological interactions and habitat change, Altered weather patterns  | IUCN Status Near Threatened, increasing population trend  |                   |                                  |                      | X        |        |
| <i>Pagophila eburnea</i>      | Ivory Gull         | Habitat loss and degradation - Energy production and mining  | IUCN Status Near Threatened, decreasing population trend  |                   |                                  |                      | X        |        |



| Species                       |                        | <u>Pressure</u>  | <u>State</u>  | <u>Response</u>  | <u>Potential listing</u>         |                      | Comments |        |
|-------------------------------|------------------------|--|---|------------------|----------------------------------|----------------------|----------|--------|
|                               |                        |  |   |                  | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I |
| Latin name                    | Common name            |  |   |                  |                                  |                      |          |        |
| <i>Sterna elegans</i>         | Elegant Tern           | Unsustainable fishing and harvesting aquatic resources - Prey depletion  | IUCN Status Near Threatened, stable population trend      |                  |                                  |                      | X        |        |
| <i>Larosterna inca</i>        | Inca Tern              | Habitat loss and degradation - Agriculture;<br>Invasive Species - Predators;<br>Human Disturbance - Work and other activities                              | IUCN Status Near Threatened, decreasing population trend  |                  |                                  |                      | X        |        |
| <i>Columba janthina</i>       | Japanese Wood-pigeon   | Habitat loss and degradation - Logging and unsustainable harvesting;<br>Unsustainable hunting and trapping   | IUCN Status Near Threatened, decreasing population trend  |                  |                                  |                      | X        |        |
| <i>Caloenas nicobarica</i>    | Nicobar Pigeon         | Unsustainable hunting and trapping;<br>Habitat loss and degradation - Agriculture and aquaculture;<br>Invasive Species - Predators                         | IUCN Status Near Threatened, decreasing population trend, | CITES Appendix I | X                                |                      | X        |        |
| <i>Treron formosae</i>        | Whistling Green-pigeon | Habitat loss and degradation - Logging and unsustainable harvesting;<br>Human Disturbance - Recreational activities;<br>Unsustainable hunting and trapping | IUCN Status Near Threatened, decreasing population trend  |                  |                                  |                      | X        |        |
| <i>Ptilinopus jambu</i>       | Jambu Fruit-dove       | Habitat loss and degradation - Logging and unsustainable harvesting;<br>Unsustainable hunting and trapping   | IUCN Status Near Threatened, decreasing population trend  |                  |                                  |                      | X        |        |
| <i>Chamosyna multistriata</i> | Striated Lorikeet      | Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting, (Energy production and mining)   | IUCN Status Near Threatened, decreasing population trend  |                  |                                  |                      | X        |        |

| Species                         |                        | <u>Pressure</u>   | <u>State</u>  | <u>Response</u>   | <u>Potential listing</u>         |                      | Comments |
|---------------------------------|------------------------|---|---|-------------------|----------------------------------|----------------------|----------|
|                                 |                        |   |   |                   | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                      | Common name            |   |   |                   |                                  |                      |          |
| <i>Psittinus cyanurus</i>       | Blue-rumped Parrot     | Habitat loss and degradation - Logging and unsustainable harvesting; Unsustainable hunting and trapping   | IUCN Status Near Threatened, decreasing population trend, | CITES Appendix II |                                  | X                    |          |
| <i>Psittacula longicauda</i>    | Long-tailed Parakeet   | Habitat loss and degradation - Logging and unsustainable harvesting   | IUCN Status Near Threatened, decreasing population trend, | CITES Appendix II |                                  | X                    |          |
| <i>Aratinga erythrogenys</i>    | Red-masked Parakeet    | Unsustainable hunting and trapping; Illegal trade; Habitat loss and degradation   | IUCN Status Near Threatened, decreasing population trend, | CITES Appendix II |                                  | X                    |          |
| <i>Nannopsittaca dachilleae</i> | Amazonian Parrotlet    | Habitat loss and degradation - Logging and unsustainable harvesting, Energy production and mining, Infrastructure and service corridors, Residential and commercial development | IUCN Status Near Threatened, decreasing population trend, | CITES Appendix II |                                  | X                    |          |
| <i>Amazona dufresniana</i>      | Blue-cheeked Amazon    | Habitat loss and degradation; Unsustainable hunting and trapping  | IUCN Status Near Threatened, decreasing population trend, | CITES Appendix II |                                  | X                    |          |
| <i>Cuculus vagans</i>           | Moustached Hawk-cuckoo | Habitat loss and degradation - Logging and unsustainable harvesting   | IUCN Status Near Threatened, decreasing population trend  |                   |                                  | X                    |          |

| Species                         |                        | <u>Pressure</u>   | <u>State</u>   | <u>Response</u>   | <u>Potential listing</u>         |                      | Comments |
|---------------------------------|------------------------|---|--|-------------------|----------------------------------|----------------------|----------|
|                                 |                        |   |  |                   | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                      | Common name            |   |  |                   |                                  |                      |          |
| <i>Strix occidentalis</i>       | Spotted Owl            | Habitat loss and degradation - Logging and unsustainable harvesting;<br>Climate Change - Ecological interactions and habitat change, Altered weather patterns;<br>Population genetics - Hybridisation | IUCN Status Near Threatened,<br>decreasing population trend, | CITES Appendix II |                                  | X                    |          |
| <i>Batrachostomus stellatus</i> | Gould's Frogmouth      | Habitat loss and degradation - Logging and unsustainable harvesting   | IUCN Status Near Threatened,<br>decreasing population trend  |                   |                                  | X                    |          |
| <i>Eleothreptus anomalus</i>    | Sickle-winged Nightjar | Habitat loss and degradation - Agriculture  | IUCN Status Near Threatened,<br>decreasing population trend  |                   |                                  | X                    |          |
| <i>Chaetura pelagica</i>        | Chimney Swift          | Habitat loss and degradation - Logging and unsustainable harvesting, Changes in land-use management   | IUCN Status Near Threatened,<br>decreasing population trend  |                   |                                  | X                    |          |
| <i>Eriocnemis derbyi</i>        | Black-thighed Puffleg  | Habitat loss and degradation - Logging and unsustainable harvesting,<br>Agriculture   | IUCN Status Near Threatened,<br>decreasing population trend, | CITES Appendix II |                                  | X                    |          |
| <i>Harpactes wardi</i>          | Ward's Trogon          | Habitat loss and degradation - Logging and unsustainable harvesting;<br>Unsustainable hunting and trapping  | IUCN Status Near Threatened,<br>decreasing population trend  |                   |                                  | X                    |          |
| <i>Priotelus roseigaster</i>    | Hispaniolan Trogon     | Habitat loss and degradation - Agriculture, Energy production and mining, Logging and unsustainable harvesting;<br>Unsustainable hunting and trapping   | IUCN Status Near Threatened,<br>decreasing population trend  |                   |                                  | X                    |          |

| Species                           |                              | <u>Pressure</u>  | <u>State</u>  | <u>Response</u>  | <u>Potential listing</u>         |                      | Comments |
|-----------------------------------|------------------------------|--|---|------------------|----------------------------------|----------------------|----------|
|                                   |                              |  |   |                  | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                        | Common name                  |  |   |                  |                                  |                      |          |
| <i>Pharomachrus mocinno</i>       | Resplendent Quetzal          | Habitat loss and degradation - Logging and unsustainable harvesting; Unsustainable hunting and trapping  | IUCN Status Near Threatened, decreasing population trend, | CITES Appendix I | X                                | X                    |          |
| <i>Andigena laminirostris</i>     | Plate-billed Mountain-toucan | Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting, Residential and commercial development, Energy production and mining; Unsustainable hunting and trapping | IUCN Status Near Threatened, decreasing population trend  |                  |                                  | X                    |          |
| <i>Melanerpes erythrocephalus</i> | Red-headed Woodpecker        | Habitat loss and degradation - Agriculture, Infrastructure and service corridors, Changes in land-use management; Unsustainable hunting and trapping                                       | IUCN Status Near Threatened, decreasing population trend  |                  |                                  | X                    |          |
| <i>Phibalura flavirostris</i>     | Swallow-tailed Cotinga       | Habitat loss and degradation - Logging and unsustainable harvesting  | IUCN Status Near Threatened, decreasing population trend  |                  |                                  | X                    |          |
| <i>Contopus cooperi</i>           | Olive-sided Flycatcher       | Habitat loss and degradation - Logging and unsustainable harvesting, Changes in land-use management  | IUCN Status Near Threatened, decreasing population trend  |                  |                                  | X                    |          |
| <i>Spartonoica maluroides</i>     | Bay-capped Wren-spinetail    | Habitat loss and degradation - Agriculture   | IUCN Status Near Threatened, decreasing population trend  |                  |                                  | X                    |          |
| <i>Vireo bellii</i>               | Bell's Vireo                 | Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting, Residential and commercial development   | IUCN Status Near Threatened, decreasing population trend  |                  |                                  | X                    |          |

| Species                        |                           | <u>Pressure</u>   | <u>State</u>   | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |        |
|--------------------------------|---------------------------|---|--|-----------------|----------------------------------|----------------------|----------|--------|
|                                |                           |   |  |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I |
| Latin name                     | Common name               |   |  |                 |                                  |                      |          |        |
| <i>Bombycilla japonica</i>     | Japanese Waxwing          | Habitat loss and degradation - Logging and unsustainable harvesting; Illegal trade  | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Pycnonotus melanoleucos</i> | Black-and-white Bulbul    | Habitat loss and degradation - Logging and unsustainable harvesting, Agriculture  | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Andropadus montanus</i>     | Cameroon Montane Greenbul | Habitat loss and degradation - Logging and unsustainable harvesting, Agriculture  | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Bradypterus major</i>       | Long-billed Bush-warbler  | Habitat loss and degradation - Logging and unsustainable harvesting, Agriculture  | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Carpodacus cassinii</i>     | Cassin's Finch            | Habitat loss and degradation - Logging and unsustainable harvesting   | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Vermivora chrysoptera</i>   | Golden-winged Warbler     | Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting; Invasive Species - Competition; Population genetics - Hybridisation | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Emberiza cineracea</i>      | Cinereous Bunting         | Human Disturbance - Recreational activities; Habitat loss and degradation - Changes in land-use management  | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Emberiza yessoensis</i>     | Ochre-rumped Bunting      | Habitat loss and degradation  | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |

| Species                     |                            | <u>Pressure</u>  | <u>State</u>   | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |        |
|-----------------------------|----------------------------|--|--|-----------------|----------------------------------|----------------------|----------|--------|
|                             |                            |  |  |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I |
| Latin name                  | Common name                |  |  |                 |                                  |                      |          |        |
| <i>Calcarius ornatus</i>    | Chestnut-collared Longspur | Habitat loss and degradation - Residential and commercial development  | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Ammodramus henslowii</i> | Henslow's Sparrow          | Habitat loss and degradation - Agriculture, Changes in land-use management   | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Passerina ciris</i>      | Painted Bunting            | Habitat loss and degradation - Residential and commercial development, Infrastructure and service corridors, Agriculture; Unsustainable hunting and trapping | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Progne sinaloae</i>      | Sinaloa Martin             |  | IUCN Status Vulnerable, stable population trend          |                 |                                  |                      | X        |        |
| <b><i>Pisces</i></b>        |                            |  |  |                 |                                  |                      |          |        |
| <b><i>Marine fish</i></b>   |                            |  |  |                 |                                  |                      |          |        |
| <i>Aetobatus flagellum</i>  | Longheaded eagle ray       | Unsustainable fishing and harvesting aquatic resources - Bycatch; Habitat loss and degradation - Destructive fishing practices                               | IUCN Status Endangered, decreasing population trend      |                 |                                  | X                    | X        |        |
| <i>Aetobatus narinari</i>   | Bonnet ray                 | Unsustainable fishing and harvesting aquatic resources - Overharvesting, Bycatch   | IUCN Status Near Threatened, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Aetomylaeus nichofii</i> | Banded eagle ray           | Habitat loss and degradation - Destructive fishing practices   | IUCN Status Vulnerable, decreasing population trend      |                 |                                  |                      | X        |        |

| Species                            |                        | <u>Pressure</u>   | <u>State</u>  | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |        |
|------------------------------------|------------------------|---|---|-----------------|----------------------------------|----------------------|----------|--------|
|                                    |                        |   |   |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I |
| Latin name                         | Common name            |   |   |                 |                                  |                      |          |        |
| <i>Alopias pelagicus</i>           | Pelagic thresher shark | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Population genetics - Low reproduction rates   | IUCN Status Vulnerable, decreasing population trend                   |                 |                                  |                      | X        |        |
| <i>Alopias superciliosus</i>       | Bigeye thresher shark  | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Population genetics - Low reproduction rates   | IUCN Status Vulnerable, decreasing population trend                   |                 |                                  |                      | X        |        |
| <i>Alopias vulpinus</i>            | Common thresher shark  | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Population genetics - Low reproduction rates   | IUCN Status Vulnerable, decreasing population trend                   |                 |                                  |                      | X        |        |
| <i>Anoxypristis cuspidata</i>      | Knifetooth sawfish     | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Population genetics - Population fragmentation, Loss of genetic diversity;<br>Habitat loss and degradation - Energy production and mining | IUCN Status Endangered, decreasing population trend, CITES Appendix I |                 |                                  | X                    | X        |        |
| <i>Carcharhinus acronotus</i>      | Blacknose shark        | Unsustainable fishing and harvesting aquatic resources - Bycatch  | IUCN Status Near Threatened, decreasing population trend              |                 |                                  |                      | X        |        |
| <i>Carcharhinus albimarginatus</i> | Silvertip shark        | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting  | IUCN Status Near Threatened   |                 |                                  |                      | X        |        |
| <i>Carcharhinus brachyurus</i>     | Bronze whaler          | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting  | IUCN Status Near Threatened   |                 |                                  |                      | X        |        |

| Species                             |                           | <u>Pressure</u>  | <u>State</u>   | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |   |
|-------------------------------------|---------------------------|--|--|-----------------|----------------------------------|----------------------|----------|---|
|                                     |                           |  |  |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I                                      |
| Latin name                          | Common name               |  |  |                 |                                  |                      |          |   |
| <i>Carcharhinus<br/>brevipinna</i>  | Spinner shark             | Unsustainable fishing and harvesting<br>aquatic resources - Overharvesting;<br>Human Disturbance - Recreational<br>activities  | IUCN Status Near<br>Threatened                                 |                 |                                  |                      | X        | often also referred to<br>as Blacktip shark |
| <i>Carcharhinus<br/>falcoformis</i> | Silky shark               | Unsustainable fishing and harvesting<br>aquatic resources - Bycatch,<br>Overharvesting   | IUCN Status Near<br>Threatened,<br>decreasing population trend |                 |                                  |                      | X        |   |
| <i>Carcharhinus leucas</i>          | Bull shark                | Habitat loss and degradation -<br>Residential and commercial<br>development, Energy production and<br>mining;<br>Unsustainable fishing and harvesting<br>aquatic resources - Overharvesting;<br>Human Disturbance - Recreational<br>activities | IUCN Status Near<br>Threatened                                 |                 |                                  |                      | X        |   |
| <i>Carcharhinus limbatus</i>        | Blacktip shark            | Unsustainable fishing and harvesting<br>aquatic resources - Overharvesting;<br>Human Disturbance - Recreational<br>activities  | IUCN Status Near<br>Threatened                                 |                 |                                  |                      | X        |   |
| <i>Carcharhinus<br/>longimanus</i>  | Oceanic whitetip<br>shark | Unsustainable fishing and harvesting<br>aquatic resources - Bycatch,<br>Overharvesting   | IUCN Status Vulnerable,<br>decreasing population trend         |                 |                                  |                      | X        |   |
| <i>Carcharhinus<br/>obscurus</i>    | Dusky shark               | Unsustainable fishing and harvesting<br>aquatic resources - Bycatch,<br>Overharvesting;<br>Human Disturbance - Recreational<br>activities  | IUCN Status Vulnerable,<br>decreasing population trend         |                 |                                  |                      | X        |   |



| Species                        |                    | <u>Pressure</u>   | <u>State</u>   | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |        |
|--------------------------------|--------------------|---|--|-----------------|----------------------------------|----------------------|----------|--------|
|                                |                    |   |  |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I |
| Latin name                     | Common name        |   |  |                 |                                  |                      |          |        |
| <i>Carcharhinus plumbeus</i>   | Sandbar shark      | Unsustainable fishing and harvesting aquatic resources - Overharvesting, Sport-fishing, Bycatch (in Mediterranean);<br>Population genetics - Low reproduction rates;<br>Habitat loss and degradation;<br>Pollution (in Mediterranean) | IUCN Status Vulnerable, decreasing population trend                    |                 |                                  |                      | X        |        |
| <i>Carcharhinus signatus</i>   | Night shark        | Unsustainable fishing and harvesting aquatic resources - Overharvesting   | IUCN Status Vulnerable, decreasing population trend                    |                 |                                  |                      | X        |        |
| <i>Carcharias taurus</i>       | Sandtiger shark    | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Human Disturbance - Recreational activities   | IUCN Status Vulnerable   |                 |                                  |                      | X        |        |
| <i>Galeorhinus galeus</i>      | Tope shark         | Unsustainable fishing and harvesting aquatic resources - Overharvesting, Bycatch;<br>Habitat loss and degradation -<br>Destructive fishing practices, Energy production and mining  | IUCN Status Vulnerable, decreasing population trend, Cites Appendix II |                 |                                  |                      | X        |        |
| <i>Isogomphodon oxyrinchus</i> | Daggernose shark   | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Population genetics  | IUCN Status Critically Endangered, decreasing population trend         |                 |                                  | X                    | X        |        |
| <i>Mobula hypostoma</i>        | Atlantic devil ray | Unsustainable fishing and harvesting aquatic resources -<br>Bycatch   | IUCN Status Data Deficient   |                 |                                  |                      | X        |        |

| Species                   |                          | <u>Pressure</u>   | <u>State</u>  | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |        |
|---------------------------|--------------------------|---|---|-----------------|----------------------------------|----------------------|----------|--------|
|                           |                          |   |   |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I |
| Latin name                | Common name              |   |   |                 |                                  |                      |          |        |
| <i>Mobula japonica</i>    | Japanese devil ray       | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Population genetics - Low reproduction rates | IUCN Status Near Threatened                             |                 |                                  |                      | X        |        |
| <i>Mobula kuhlii</i>      | Shortfin devil ray       | Unsustainable fishing and harvesting aquatic resources - Bycatch  | IUCN Status Data Deficient, decreasing population trend |                 |                                  |                      | X        |        |
| <i>Mobula mobular</i>     | Giant devil ray          | Unsustainable fishing and harvesting aquatic resources - Bycatch  | IUCN Status Endangered, decreasing population trend     |                 |                                  | X                    | X        |        |
| <i>Mobula munkiana</i>    | Monk's devil ray         | Unsustainable fishing and harvesting aquatic resources - Bycatch;<br>Population genetics - Low reproduction rates                 | IUCN Status Near Threatened                             |                 |                                  |                      | X        |        |
| <i>Mobula rochebrunei</i> | Lesser Guinean devil ray | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Population genetics - Low reproduction rates | IUCN Status Vulnerable                                  |                 |                                  |                      | X        |        |
| <i>Mobula tarapacana</i>  | Box ray                  | Unsustainable fishing and harvesting aquatic resources - Bycatch;<br>Population genetics - Low reproduction rates                 | IUCN State Data Deficient                               |                 |                                  |                      | X        |        |
| <i>Mobula thurstoni</i>   | Bentfin devil ray        | Unsustainable fishing and harvesting aquatic resources - Bycatch  | IUCN Status Near Threatened                             |                 |                                  |                      | X        |        |
| <i>Prionace glauca</i>    | Blue shark               | Unsustainable fishing and harvesting aquatic resources - Bycatch, Sport-fishing   | IUCN Status Near Threatened                             |                 |                                  |                      | X        |        |

| Species                     |                        | <u>Pressure</u>  | <u>State</u>  | <u>Response</u>  | <u>Potential listing</u>         |                      | Comments |
|-----------------------------|------------------------|--|---|------------------|----------------------------------|----------------------|----------|
|                             |                        |  |   |                  | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                  | Common name            |  |   |                  |                                  |                      |          |
| <i>Pristis microdon</i>     | Freshwater sawfish     | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Habitat loss and degradation - Aquaculture, Energy production and mining, Logging and unsustainable harvesting;<br>Pollution  | IUCN Status Critically Endangered, decreasing population trend, | CITES Appendix I | X                                | X                    |          |
| <i>Pristis pectinata</i>    | Smalltooth sawfish     | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Habitat loss and degradation - Aquaculture, Residential and commercial development  | IUCN Status Critically Endangered, decreasing population trend, | CITES Appendix I | X                                | X                    |          |
| <i>Pristis perotteti</i>    | Large-tooth sawfish    | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Habitat loss and degradation   | IUCN Status Critically Endangered, decreasing population trend, | CITES Appendix I | X                                | X                    |          |
| <i>Pristis pristis</i>      | Common sawfish         | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Habitat loss and degradation - Aquaculture, Energy production and mining, Logging and unsustainable harvesting, Residential and commercial development;<br>Pollution - Industry and production, Marine debris;<br>Human Disturbance - Recreational activities | IUCN Status Critically Endangered, decreasing population trend, | CITES Appendix I | X                                | X                    |          |
| <i>Pteromylaeus bovinus</i> | Bullray                | Unsustainable fishing and harvesting aquatic resources;<br>Pollution   | IUCN Status Data Deficient                                      |                  |                                  | X                    |          |
| <i>Sphyrna corona</i>       | Crown/Mallethead shark | Unsustainable fishing and harvesting aquatic resources   | IUCN Status Near Threatened                                     |                  |                                  | X                    |          |

| Species                            |                            | <u>Pressure</u>   | <u>State</u>   | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |
|------------------------------------|----------------------------|---|--|-----------------|----------------------------------|----------------------|----------|
|                                    |                            |   |  |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                         | Common name                |   |  |                 |                                  |                      |          |
| <i>Sphyrna lewini</i>              | Scalloped hammerhead shark | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Human Disturbance - Recreational activities  | IUCN Status Endangered   |                 | X                                | X                    |          |
| <i>Sphyrna mokarran</i>            | Great hammerhead shark     | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Human Disturbance - Recreational activities  | IUCN Status Endangered, decreasing population trend            |                 | X                                | X                    |          |
| <i>Sphyrna tudes</i>               | Golden hammerhead shark    | Unsustainable fishing and harvesting aquatic resources - Experimental fisheries   | IUCN Status Vulnerable, decreasing population trend            |                 |                                  | X                    |          |
| <i>Sphyrna zygaena</i>             | Smooth hammerhead shark    | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting  | IUCN Status Vulnerable, decreasing population trend            |                 |                                  | X                    |          |
| <i>Squatina squatina</i>           | Angel shark                | Unsustainable fishing and harvesting aquatic resources - Bycatch;<br>Habitat loss and degradation - Destructive fishing practices | IUCN Status Critically Endangered, decreasing population trend |                 | X                                | X                    |          |
| <b>Freshwater fish</b>             |                            |   |  |                 |                                  |                      |          |
| <i>Brycon orbignyanus</i>          | Piracanjuba                | Habitat loss and degradation - River Damming  | IUCN Status Not listed   |                 |                                  | X                    |          |
| <i>Salminus brasiliensis</i>       | Golden dorado              | Habitat loss and degradation - River Damming;<br>Unsustainable fishing and harvesting aquatic resources - Overharvesting          | IUCN Status Not listed   |                 |                                  | X                    |          |
| <i>Piaractus mesopotamicus</i>     | Pacu                       | Unsustainable fishing and harvesting aquatic resources - Overharvesting   | IUCN Status Not listed   |                 |                                  | X                    |          |
| <i>Pseudoplatystoma corruscans</i> | Spotted sorubim            | Habitat loss and degradation - River Damming  | IUCN Status Not listed   |                 |                                  | X                    |          |

| Species                            |                        | <u>Pressure</u>   | <u>State</u>  | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |
|------------------------------------|------------------------|---|---|-----------------|----------------------------------|----------------------|----------|
|                                    |                        |   |   |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                         | Common name            |   |   |                 |                                  |                      |          |
| <i>Pseudoplatystoma fasciatum</i>  | Barred sorubim         | Habitat loss and degradation - River Damming;<br>Unsustainable fishing and harvesting aquatic resources - Overharvesting  | IUCN Status Not listed                                      |                 |                                  |                      | X        |
| <i>Zungaro jahu</i>                | Brazilian Jahu Catfish | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Habitat loss and degradation - River Damming  | IUCN Status Not listed                                      |                 |                                  |                      | X        |
| <i>Brachyplatystoma vaillantii</i> | Laulao catfish         | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Habitat loss and degradation - Agriculture, Energy production and mining, River Damming   | IUCN Status Not listed                                      |                 |                                  |                      | X        |
| <i>Pangasius hypophthalmus</i>     | Striped Catfish        | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Habitat loss and degradation - River Damming  | IUCN Status Endangered,<br>decreasing population trend      |                 | X                                |                      | X        |
| <i>Tor putitora</i>                | Golden Mahaseer        | Habitat loss and degradation - Agriculture;<br>Energy production and mining - River Damming;<br>Pollution - Industry and production;<br>Unsustainable fishing and harvesting aquatic resources - Overharvesting | IUCN Status Endangered,<br>decreasing population trend      |                 | X                                |                      | X        |
| <i>Bagarius yarrelli</i>           | Giant devil catfish    | Unsustainable fishing and harvesting aquatic resources - Overharvesting   | IUCN Status Near Threatened,<br>decreasing population trend |                 |                                  |                      | X        |

| Species                      |                            | <u>Pressure</u>  | <u>State</u>   | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |        |
|------------------------------|----------------------------|--|--|-----------------|----------------------------------|----------------------|----------|--------|
|                              |                            |  |  |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          | App. I |
| Latin name                   | Common name                |  |  |                 |                                  |                      |          |        |
| <i>Hucho taimen</i>          | Siberian Taimen            | Unsustainable fishing and harvesting aquatic resources - Sport-fishing;<br>Pollution - Industry and production;<br>Habitat loss and degradation - Energy production and mining, River Damming, Infrastructure and service corridors;<br>Climate Change | IUCN Status Vulnerable,<br>decreasing population trend |                 |                                  |                      | X        |        |
| <i>Dasyatis laosensis</i>    | Mekong Freshwater Stingray | Unsustainable fishing and harvesting aquatic resources - Bycatch, Experimental fisheries;<br>Habitat loss and degradation - River Damming, Agriculture;<br>Human Disturbance - Recreational activities   | IUCN Status Endangered,<br>decreasing population trend |                 |                                  | X                    | X        |        |
| <i>Himantura chaophraya</i>  | Giant freshwater stingray  | Human Disturbance - Recreational activities;<br>Unsustainable fishing and harvesting aquatic resources - Sport-fishing;<br>Habitat loss and degradation - River Damming, Agriculture and aquaculture, Residential and commercial development           | IUCN Status Endangered,<br>decreasing population trend |                 |                                  | X                    | X        |        |
| <i>Himantura fluviatilis</i> | Cowtail Stingray           | Unsustainable fishing and harvesting aquatic resources - Bycatch, Overharvesting;<br>Habitat loss and degradation - Agriculture, Logging and unsustainable harvesting, Energy production and mining  | IUCN Status Data Deficient                             |                 |                                  |                      | X        |        |
| <i>Alosa immaculata</i>      | Pontic shad                | Unsustainable fishing and harvesting aquatic resources - Overharvesting ;<br>Habitat loss and degradation - River Damming  | IUCN Status Vulnerable,<br>decreasing population trend |                 |                                  |                      | X        |        |

| Species                       |                  | <u>Pressure</u>  | <u>State</u>   | <u>Response</u>   | <u>Potential listing</u>         |                      | Comments |
|-------------------------------|------------------|--|--|-------------------|----------------------------------|----------------------|----------|
|                               |                  |  |  |                   | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                    | Common name      |  |  |                   |                                  |                      |          |
| <i>Alosa volgensis</i>        |                  | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Habitat loss and degradation - River Damming, Changes in land-use management             | IUCN Status Endangered   |                   | X                                | X                    |          |
| <i>Anguilla anguilla</i>      | European eel     | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Habitat loss and degradation - River Damming, Changes in land-use management             | IUCN Status Critically Endangered,<br>decreasing population trend, | CITES Appendix II | X                                | X                    |          |
| <i>Aspiolucius esocinus</i>   | Pike asp         | Habitat loss and degradation - Agriculture, Energy production and mining   | IUCN Status Vulnerable   |                   |                                  | X                    |          |
| <i>Coregonus lavaretus</i>    | Common whitefish | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Pollution;<br>Invasive Species - Competition   | IUCN Status Vulnerable   |                   |                                  | X                    |          |
| <i>Cyprinus carpio carpio</i> | Common carp      | Population genetics - Hybridisation;<br>Habitat loss and degradation - Changes in land-use management  | IUCN Status Vulnerable   |                   |                                  | X                    |          |
| <i>Gila elegans</i>           | Bonytail         | Habitat loss and degradation - River Damming;<br>Invasive Species - Predators, Competition;<br>Population genetics - Hybridisation                                   | IUCN Status Critically Endangered,<br>decreasing population trend  |                   | X                                | X                    |          |
| <i>Hucho hucho</i>            | Huchen           | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Pollution;<br>Habitat loss and degradation - Energy production and mining, River Damming | IUCN Status Endangered   |                   | X                                | X                    |          |

| Species                           |                      | <u>Pressure</u>   | <u>State</u>   | <u>Response</u> | <u>Potential listing</u>         |                      | Comments |
|-----------------------------------|----------------------|---|--|-----------------|----------------------------------|----------------------|----------|
|                                   |                      |   |  |                 | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                        | Common name          |   |  |                 |                                  |                      |          |
| <i>Hucho perryi</i>               | Japanese Huchen      | Unsustainable fishing and harvesting aquatic resources - Overharvesting, Bycatch;<br>Habitat loss and degradation - Logging and unsustainable harvesting, Energy production and mining, Agriculture, Residential and commercial development | IUCN Status Critically Endangered, decreasing population trend |                 | X                                | X                    |          |
| <i>Luciobarbus brachycephalus</i> | Aral barbel          | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Habitat loss and degradation - River Damming  | IUCN Status Vulnerable, decreasing population trend            |                 |                                  | X                    |          |
| <i>Marcusenius victoriae</i>      | Victoria Stonebasher | Habitat loss and degradation - Agriculture;<br>Pollution - Agriculture and hunting/fishing;<br>Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Invasive Species - Competition                                   | IUCN Status Endangered, decreasing population trend            |                 | X                                | X                    |          |
| <i>Mystus bocourti</i>            |                      | Pollution;<br>Habitat loss and degradation - River Damming  | IUCN Status Vulnerable, decreasing population trend            |                 |                                  | X                    |          |
| <i>Opsaridium microcephalum</i>   |                      | Unsustainable fishing and harvesting aquatic resources - Overharvesting   | IUCN Status Vulnerable, decreasing population trend            |                 |                                  | X                    |          |
| <i>Opsaridium microlepis</i>      | Lake salmon          | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Habitat loss and degradation - Logging and unsustainable harvesting   | IUCN Status Endangered, decreasing population trend            |                 | X                                | X                    |          |
| <i>Osphronemus exodon</i>         | Elephant ear gourami | Pollution - Agriculture and hunting/fishing;<br>Habitat loss and degradation - River Damming  | IUCN Status Vulnerable, decreasing population trend            |                 |                                  | X                    |          |



| Species                       |                     | <u>Pressure</u>  | <u>State</u>  | <u>Response</u>  | <u>Potential listing</u>         |                      | Comments |
|-------------------------------|---------------------|--|---|------------------|----------------------------------|----------------------|----------|
|                               |                     |  |   |                  | IUCN Status,<br>Population trend | CMS, CITES<br>Status |          |
| Latin name                    | Common name         |  |   |                  |                                  |                      |          |
| <i>Pandaka pygmaea</i>        | Dwarf pygmy goby    | Pollution;<br>Habitat loss and degradation   | IUCN Status Critically Endangered                                 |                  | X                                | X                    |          |
| <i>Pangasius sanitwongsei</i> | Giant pangasius     | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Habitat loss and degradation - River Damming   | IUCN Status Critically Endangered,<br>decreasing population trend |                  | X                                | X                    |          |
| <i>Probarbus jullieni</i>     | Isok barb           | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Habitat loss and degradation - River Damming   | IUCN Status Endangered,<br>decreasing population trend,           | CITES Appendix I | X                                | X                    |          |
| <i>Ptychocheilus lucius</i>   | Colorado pikeminnow | Habitat loss and degradation - River Damming;<br>Invasive Species;<br>Climate Change - Altered weather patterns, Changes in precipitation,<br>Ecological interactions and habitat change | IUCN Status Vulnerable,<br>stable population trend                |                  |                                  | X                    |          |
| <i>Silhouettea sibayi</i>     | Barebreast goby     | Habitat loss and degradation - Energy production and mining, Infrastructure and service corridors;<br>Human Disturbance - Recreational activities  | IUCN Status Endangered  |                  | X                                | X                    |          |
| <i>Tenualosa thibaudeaui</i>  | Laotian shad        | Unsustainable fishing and harvesting aquatic resources - Overharvesting;<br>Habitat loss and degradation - Infrastructure and service corridors,<br>River Damming                        | IUCN Status Vulnerable,<br>decreasing population trend            |                  |                                  | X                    |          |
| <i>Micralestes comoensis</i>  | Micralestes         | Habitat loss and degradation - Logging and unsustainable harvesting;<br>Pollution  | IUCN Status Vulnerable  |                  |                                  | X                    |          |
| <i>Barbus liberiensis</i>     | Carp                | Habitat loss and degradation - Energy production and mining, Logging and unsustainable harvesting  | IUCN Status Endangered  |                  | X                                | X                    |          |

| Species                   |               | <u>Pressure</u>              | <u>State</u>                     | <u>Response</u>      | <u>Potential listing</u> |         | Comments |
|---------------------------|---------------|------------------------------|----------------------------------|----------------------|--------------------------|---------|----------|
| Latin name                | Common name   |                              | IUCN Status,<br>Population trend | CMS, CITES<br>Status | App. I                   | App. II |          |
| <i>Insects</i>            |               |                              |                                  |                      |                          |         |          |
| <i>Pantala flavescens</i> | Globe Skimmer | Habitat loss and degradation | IUCN Least Concern               |                      |                          | X       |          |

DRAFT

Annex II

**Questionnaire for the  
Global Gap Analysis of the Convention on Migratory Species**

Formia, Italy, October 2013

1. In your opinion, what are important threats to migratory species which the Convention is not (sufficiently addressing? Why should they be addressed?

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2. In your opinion, what are important opportunities for the promotion of migratory species? Why?

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3. In your opinion, which important species/taxonomic groups are not listed on the CMS appendices?

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