

Second Meeting of Signatories | Trondheim, Norway, 5-8 October 2015

## PROPOSALS FOR AMENDMENTS TO THE RAPTORS MOU AND/OR ITS ANNEXES: LIST OF AFRICAN-EURASIAN MIGRATORY BIRDS OF PREY (ANNEX 1)

*Prepared by the Coordinating Unit of the Raptors MoU*

1. At their first meeting (MoS1 held in December 2012), Signatories to the Raptors MoU established a Technical Advisory Group (TAG) and agreed a list of priority tasks for it to address in advance of the Second Meeting of Signatories (MoS2). One key task was to review the list of species of African-Eurasian migratory birds of prey in Annex 1 of the original text of the Raptors MoU (UNEP/CMS/Raptors/MOS2/Inf.1).
2. The review was carried out by TAG following the procedures established in its Terms of Reference (UNEP/CMS/Raptors/MOS2/Inf.2). BirdLife International (delegated by IUCN as Red List authority for birds) is represented on TAG and expertly led the review process under a consultancy contract let by the Coordinating Unit. This review by TAG focused on two key areas, as follows:
  - a) Updates to taxonomy and nomenclature to keep pace with current understanding. For example, where species originally listed on Annex 1 have since been split or lumped, which has resulted in proposed additions to, or subtractions from, the species list. In summary, the TAG proposals recommend adding two new species, removing three species and incorporating recent amendments to the taxonomy and/or nomenclature for a further 17 species on the original list.
  - b) Consideration as to whether species should be added to (or removed from) Annex 1 on the basis of current understanding of their movements and whether they can be considered as a 'migratory species', according to the CMS definition adopted by the Raptors MoU. In summary, the TAG proposals recommend the addition of 18 new species to the list in Annex 1. Twelve of these are globally threatened or near threatened species of vulture.
3. Overall, the TAG proposals (Annex A to this document) recommend increasing the number of species listed on Annex 1 from 76 to 93 species, to promote the aim of the Raptors MoU which is to ensure that all populations of migratory birds of prey in the African-Eurasian region are maintained in, or returned to, Favourable Conservation Status.
4. In early August 2015, the Coordinating Unit circulated these TAG proposals to all 52 Signatories of the Raptors MoU. Signatories were invited to consider the TAG recommendations and to notify the Coordinating Unit of any errors or omissions by the end of August 2015.
5. The Coordinating Unit would like to thank the seven Signatories that submitted responses, namely Denmark, France, Hungary, Madagascar, Monaco, Sweden and the Syrian Arab Republic. The TAG proposals received unanimous support from the respondents and no substantive changes were suggested regarding the recommended amendments to the list of species.

6. France commented on the CMS definition of ‘migratory species’ and pointed out that it didn’t fully match the usual biological interpretation of the term. TAG had already carefully considered this issue during its deliberations and concluded that the current CMS definition adopted by the Raptors MoU provides valuable flexibility for interpretation that effectively encompasses a comprehensive range of predictable movements across international geopolitical boundaries, undertaken by the many different species of birds of prey during their varied life cycles.

7. A draft Table 1 of Annex 3 (Annex B of this document) sets out the proposed categorisation of the 93 species suggested for inclusion in the amended Annex 1 of the Raptors MoU. A final version will be issued in advance of MoS2 as soon as the review of the IUCN Global Red List status of species has been completed.

**Action requested:**

The Meeting is requested to review and adopt the amendments proposed by the TAG to the List of African-Eurasian migratory birds of prey (Annex 1) in the Raptors MoU and the corresponding amendments to the Categorisation of African-Eurasian migratory birds of prey (Table 1 of Annex 3) covered by the Action Plan.

## **Proposals from the Technical Advisory Group for amendments to the List of African-Eurasian Migratory Birds of Prey in Annex 1 of the Raptors MoU**

### **Introduction**

At the 1st Meeting of Signatories (MoS1) to the Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia (Raptors MoU), Signatories established a Technical Advisory Group (TAG) and agreed a list of priority tasks<sup>1</sup> for it to address in advance of the 2nd Meeting of Signatories (MoS2). As part of Activity 1: Improvement of Protection, Task 1.1 was 'To review the species list and sites list of the MoU', with Part a) being to 'Review existing and possible candidate Annex 1 species in the light of changes to their status'

There are two key elements to possible status change regarding the species listed in Annex 1 of the MoU that comprises the "List of African-Eurasian migratory Birds of Prey":

- 1) Updates to taxonomy and nomenclature to keep pace with current understanding, for example where species listed on Annex 1 have since been split or lumped might result in additions to, or subtractions from, the species list.
- 2) Consideration of whether species should be added to (or removed from) Annex 1 on the basis of our understanding of their movements and whether they can be considered a 'migratory species' according to the definition adopted by the Raptors MoU (see paragraph 2.2 below).

The proposals set out below outline the recommendations of TAG in relation to both 1), and 2) above and provides the underpinning rationale for each case. The resulting revised Annex 1 List of Species proposed by TAG is provided as Annex A to this document. Overall, the revised Annex 1 includes 93 species, whereas the original Annex 1 in the text of the MoU listed 76 species.

In addition to reviewing Annex 1, under Task 1.1, the TAG was also asked to review the categorisation of Annex 1 species to produce a revised Table 1<sup>2</sup> of Annex 3 of the Raptors MoU on the basis of their global and regional conservation status. Once feedback has been received from Signatories on the proposed update to Annex 1, TAG will review the categorisation of those species listed in Annex A; a proposed revised Table 1 of Annex 3 (Annex B of this document), including the category of each species will then be shared with Signatories by the Coordination Unit in advance of MoS2.

### **1) Proposed amendments to the taxonomy and nomenclature of species listed in Annex 1**

#### **1.1. Background**

The Raptors MoU<sup>3</sup> is intended to promote the conservation of migratory birds of prey in the African-Eurasian region and this is interpreted in the text of the MoU as meaning migratory Falconiformes and Strigiformes species occurring in Africa and Eurasia, listed in Annex 1 of the MoU.

The Raptors MoU follows the taxonomy, scientific nomenclature and English names used by BirdLife International<sup>4</sup> as the IUCN Red List authority for birds, and Annex 1 reflects the BirdLife taxonomy at the time the MoU came into effect (2008).

<sup>1</sup> [CMS/Raptors/MoS1/Report/Annex V](#)

<sup>2</sup> Raptors MoU: Table 1 of Annex 3 "Categorisation of African-Eurasian birds of prey covered by the Action Plan"

<sup>3</sup> <http://www.cms.int/raptors/en/page/agreement-text>

At the Eleventh Meeting of the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS COP11) in November 2014, through the adoption of UNEP/CMS/Resolution 11.19<sup>5</sup>, the BirdLife reference text, The Handbook of the Birds of the World / BirdLife International Illustrated Checklist of the Birds of the World, Volume 1: Non-passerines (del Hoyo and Collar 2014) was adopted as the standard reference for CMS on taxonomy and nomenclature for non-Passerine species.

Table A below details the proposed revisions already shared at the 1st Meeting of Signatories (MoS1) in 2012, within the Information Document (Inf Doc) 13.3<sup>6</sup> 'Update of scientific data underpinning the Raptors MoU', along with subsequent consideration by the TAG Working Group to bring Annex 1 up-to-date with the current BirdLife taxonomic checklist for all the world's birds (BirdLife International 2014b), the non-passerine component of which is reflected in del Hoyo and Collar (2014).

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<sup>4</sup> BirdLife maintains a taxonomic checklist for all the world's birds ([www.birdlife.org/datazone/info/taxonomy](http://www.birdlife.org/datazone/info/taxonomy)) to ensure a globally consistent taxonomic standard relevant to its role as the official IUCN Red List Authority for birds. The BirdLife Taxonomic Working Group (BTWG) ensures that the BirdLife taxonomic checklist evolves in a structured, documented, transparent and defensible way. Del Hoyo and Collar (2014) reflects the non-passerine component of the current BirdLife global checklist.

<sup>5</sup> [UNEP/CMS/COP11/Res. 11.19](#)

<sup>6</sup> [CMS/Raptors/MoS1/Inf.13.3](#)

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## 1.2 Proposed taxonomic and nomenclature amendments to Annex 1 of the Raptors MoU

**Table A:** Summary of proposed taxonomic and nomenclature amendments to Annex 1 of the Raptors MoU.

Proposed Action	Species Listed on Annex 1 of the Raptors MoU		Proposed amendments (key changes underlined and in red)		
	Scientific Name	Vernacular Name	Scientific Name	Vernacular Name	Justification <sup>7</sup>
<b>FALCONIFORMES</b>					
<b>Pandionidae</b>					
-	<i>Pandion haliaetus</i>	Osprey	<i>Pandion haliaetus</i>	Osprey	No amendments
<b>Accipitridae</b>					
Amend	<i>Aviceda cuculoides</i>	African Baza	<i>Aviceda cuculoides</i>	African <u>Cuckoo-hawk</u>	Recommend amending name to align with del Hoyo & Collar (2014)
-	<i>Aviceda jerdoni</i>	Jerdon's Baza	<i>Aviceda jerdoni</i>	Jerdon's Baza	No amendments
-	<i>Aviceda leuphotes</i>	Black Baza	<i>Aviceda leuphotes</i>	Black Baza	No amendments
-	<i>Pernis apivorus</i>	European Honey-buzzard	<i>Pernis apivorus</i>	European Honey-buzzard	No amendments
Amend	<i>Pernis ptilorhynchus</i>	Oriental Honey-buzzard	<i>Pernis ptilorhynchus</i>	Oriental Honey-buzzard	Recommend amending name to align with del Hoyo & Collar (2014)
Amend	<i>Chelictinia riocourii</i>	African Swallow-tailed Kite	<i>Chelictinia riocourii</i>	<u>Scissor</u> -tailed Kite	Recommend amending name to align with del Hoyo & Collar (2014)
Remove species	<i>Milvus lineatus</i>	Black-eared Kite	-	-	Recommend removal from Annex 1 to align with del Hoyo & Collar (2014). As highlighted in Inf Doc 13.3 at MoS1, <i>Milvus lineatus</i> has been combined with <i>M. migrans</i> (Sibley and Monroe 1990, 1993) following the Association of European Rarities Committees Taxonomic Advisory Committee (AERC TAC), a treatment supported by review by the BirdLife Taxonomic Working Group of the <i>Milvus</i> phylogeny presented by Johnson <i>et al.</i> (2005) which includes <i>lineatus</i> within the <i>migrans</i> clade.
-	<i>Milvus milvus</i>	Red Kite	<i>Milvus milvus</i>	Red Kite	No amendments
-	<i>Milvus migrans</i>	Black Kite	<i>Milvus migrans</i>	Black Kite	No amendments (except that <i>Milvus lineatus</i> incorporated in clade - see above)
-	<i>Haliaeetus leucoryphus</i>	Pallas's Fish-eagle	<i>Haliaeetus leucoryphus</i>	Pallas's Fish-eagle	No amendments

<sup>7</sup> For more detail see: <http://www.hbw.com/species>, <http://www.birdlife.org/datazone/species/search>, <http://www.birdlife.org/datazone/info/taxonomy>

Amend	<i>Haliaeetus albicilla</i>	White-tailed Eagle	<i>Haliaeetus albicilla</i>	White-tailed <u>Sea</u> -eagle	Recommend amending name to align with del Hoyo & Collar (2014)
-	<i>Haliaeetus pelagicus</i>	Steller's Sea-eagle	<i>Haliaeetus pelagicus</i>	Steller's Sea-eagle	No amendments
-	<i>Neophron percnopterus</i>	Egyptian Vulture	<i>Neophron percnopterus</i>	Egyptian Vulture	No amendments
-	<i>Gyps fulvus</i>	Griffon Vulture	<i>Gyps fulvus</i>	Griffon Vulture	No amendments
-	<i>Aegypius monachus</i>	Cinereous Vulture	<i>Aegypius monachus</i>	Cinereous Vulture	No amendments
-	<i>Circaetus gallicus</i>	Short-toed Snake-eagle	<i>Circaetus gallicus</i>	Short-toed Snake-eagle	No amendments
-	<i>Circus aeruginosus</i>	Western Marsh-harrier	<i>Circus aeruginosus</i>	Western Marsh-harrier	No amendments
-	<i>Circus spilonotus</i>	Eastern Marsh-harrier	<i>Circus spilonotus</i>	Eastern Marsh-harrier	No amendments
-	<i>Circus maurus</i>	Black Harrier	<i>Circus maurus</i>	Black Harrier	No amendments
Amend	<i>Circus cyaneus</i>	Northern Harrier	<i>Circus cyaneus</i>	<u>Hen</u> Harrier	Recommend amending name to align with del Hoyo & Collar (2014). Previously considered conspecific with the North American <i>C. hudsonius</i> and referred to as Northern Harrier. Common name of <i>C. cyaneus</i> changed to Hen Harrier when split.
-	<i>Circus macrourus</i>	Pallid Harrier	<i>Circus macrourus</i>	Pallid Harrier	No amendments
-	<i>Circus melanoleucos</i>	Pied Harrier	<i>Circus melanoleucos</i>	Pied Harrier	No amendments
-	<i>Circus pygargus</i>	Montagu's Harrier	<i>Circus pygargus</i>	Montagu's Harrier	No amendments
-	<i>Accipiter badius</i>	Shikra	<i>Accipiter badius</i>	Shikra	No amendments
-	<i>Accipiter brevipes</i>	Levant Sparrowhawk	<i>Accipiter brevipes</i>	Levant Sparrowhawk	No amendments
Amend	<i>Accipiter soloensis</i>	Chinese Goshawk	<i>Accipiter soloensis</i>	Chinese <u>Sparrow</u> hawk	Recommend amending name to align with del Hoyo & Collar (2014)
-	<i>Accipiter gularis</i>	Japanese Sparrowhawk	<i>Accipiter gularis</i>	Japanese Sparrowhawk	No amendments
-	<i>Accipiter virgatus</i>	Besra	<i>Accipiter virgatus</i>	Besra	No amendments
Amend	<i>Accipiter ovampensis</i>	Ovampo Sparrowhawk	<i>Accipiter ovampensis</i>	Ovampo Sparrowhawk	Recommend amending name to align with del Hoyo & Collar (2014)
-	<i>Accipiter nisus</i>	Eurasian Sparrowhawk	<i>Accipiter nisus</i>	Eurasian Sparrowhawk	No amendments
-	<i>Accipiter gentilis</i>	Northern Goshawk	<i>Accipiter gentilis</i>	Northern Goshawk	No amendments

-	<i>Butastur rufipennis</i>	Grasshopper Buzzard	<i>Butastur rufipennis</i>	Grasshopper Buzzard	No amendments
-	<i>Butastur indicus</i>	Grey-faced Buzzard	<i>Butastur indicus</i>	Grey-faced Buzzard	No amendments
Amend	<i>Buteo buteo</i>	Common Buzzard	<i>Buteo buteo</i>	<u>Eurasian</u> Buzzard	Recommend amending name to align with del Hoyo & Collar (2014). <i>Buteo buteo</i> , <i>B. japonicus</i> and <i>B. refectus</i> (del Hoyo and Collar 2014) were previously lumped as <i>B. buteo</i> following Sibley and Monroe (1990, 1993).
Add species	-	-	<u><i>Buteo japonicus</i></u>	<u>Japanese Buzzard</u>	Recommend adding species to Annex 1. Split from <i>B. buteo</i> . <i>Buteo buteo</i> , <i>B. japonicus</i> and <i>B. refectus</i> (del Hoyo and Collar 2014) were previously lumped as <i>B. buteo</i> following Sibley and Monroe (1990, 1993). <i>Buteo japonicus</i> is migratory.
Remove species	<i>Buteo oreophilus</i>	Mountain Buzzard	-	-	Recommend removal of species from Annex 1. <i>Buteo oreophilus</i> and <i>B. trizonatus</i> (del Hoyo and Collar 2014) were previously lumped as <i>B. oreophilus</i> following Sibley and Monroe (1990, 1993). <i>B. oreophilus</i> is not a migrant.
Add species	-	-	<u><i>Buteo trizonatus</i></u>	<u>Forest Buzzard</u>	Recommend adding species to Annex 1. <i>Buteo oreophilus</i> and <i>B. trizonatus</i> (del Hoyo and Collar 2014) were previously lumped as <i>B. oreophilus</i> following Sibley and Monroe (1990, 1993). <i>B. trizonatus</i> is a migrant.
-	<i>Buteo rufinus</i>	Long-legged Buzzard	<i>Buteo rufinus</i>	Long-legged Buzzard	No amendments
-	<i>Buteo hemilasius</i>	Upland Buzzard	<i>Buteo hemilasius</i>	Upland Buzzard	No amendments
-	<i>Buteo lagopus</i>	Rough-legged Buzzard	<i>Buteo lagopus</i>	Rough-legged Buzzard	No amendments
-	<i>Buteo auguralis</i>	Red-necked Buzzard	<i>Buteo auguralis</i>	Red-necked Buzzard	No amendments
Amend	<i>Aquila pomarina</i>	Lesser Spotted Eagle	<u><i>Clanga pomarina</i></u>	Lesser Spotted Eagle	Recommend amending name to align with del Hoyo & Collar (2014). <i>Clanga pomarina</i> (del Hoyo and Collar 2014) was previously placed in the genus <i>Aquila</i> .
Amend	<i>Aquila clanga</i>	Greater Spotted Eagle	<u><i>Clanga clanga</i></u>	Greater Spotted Eagle	Recommend amending name to align with del Hoyo & Collar (2014). <i>Clanga clanga</i> (del Hoyo and Collar 2014) was previously placed in the genus <i>Aquila</i> .
-	<i>Aquila rapax</i>	Tawny Eagle	<i>Aquila rapax</i>	Tawny Eagle	No amendments
-	<i>Aquila nipalensis</i>	Steppe Eagle	<i>Aquila nipalensis</i>	Steppe Eagle	No amendments
-	<i>Aquila adalberti</i>	Spanish Imperial Eagle	<i>Aquila adalberti</i>	Spanish Imperial Eagle	No amendments
-	<i>Aquila heliaca</i>	Eastern Imperial Eagle	<i>Aquila heliaca</i>	Eastern Imperial Eagle	No amendments
Amend	<i>Aquila wahlbergi</i>	Wahlberg's Eagle	<u><i>Hieraetus wahlbergi</i></u>	Wahlberg's Eagle	Recommend amending name to align with del Hoyo & Collar (2014). <i>Hieraetus wahlbergi</i> (del Hoyo and Collar 2014) was previously placed in the genus <i>Aquila</i> .
-	<i>Aquila chrysaetos</i>	Golden Eagle	<i>Aquila chrysaetos</i>	Golden Eagle	No amendments

-	<i>Hieraetus pennatus</i>	Booted Eagle	<i>Hieraetus pennatus</i>	Booted Eagle	No amendments
Amend	<i>Spizaetus nipalensis</i>	Mountain Hawk-eagle	<i>Nisaetus nipalensis</i>	Mountain Hawk-eagle	Recommend amending name to align with del Hoyo & Collar (2014). Nomenclature change as highlighted in Inf 13.3 from MoS1 and reflected in (del Hoyo and Collar 2014). <i>Spizaetus nipalensis</i> has been transferred to the genus <i>Nisaetus</i> following Haring <i>et al.</i> (2007).
<b>Falconidae</b>					
-	<i>Falco naumanni</i>	Lesser Kestrel	<i>Falco naumanni</i>	Lesser Kestrel	No amendments
-	<i>Falco tinnunculus</i>	Common Kestrel	<i>Falco tinnunculus</i>	Common Kestrel	No amendments
-	<i>Falco alopex</i>	Fox Kestrel	<i>Falco alopex</i>	Fox Kestrel	No amendments
-	<i>Falco vespertinus</i>	Red-footed Falcon	<i>Falco vespertinus</i>	Red-footed Falcon	No amendments
-	<i>Falco amurensis</i>	Amur Falcon	<i>Falco amurensis</i>	Amur Falcon	No amendments
-	<i>Falco eleonora</i>	Eleonora's Falcon	<i>Falco eleonora</i>	Eleonora's Falcon	No amendments
-	<i>Falco concolor</i>	Sooty Falcon	<i>Falco concolor</i>	Sooty Falcon	No amendments
-	<i>Falco columbarius</i>	Merlin	<i>Falco columbarius</i>	Merlin	No amendments
-	<i>Falco subbuteo</i>	Eurasian Hobby	<i>Falco subbuteo</i>	Eurasian Hobby	No amendments
-	<i>Falco severus</i>	Oriental Hobby	<i>Falco severus</i>	Oriental Hobby	No amendments
-	<i>Falco biarmicus</i>	Lanner Falcon	<i>Falco biarmicus</i>	Lanner Falcon	No amendments
-	<i>Falco cherrug</i>	Saker Falcon	<i>Falco cherrug</i>	Saker Falcon	No amendments
-	<i>Falco rusticolus</i>	Gyr Falcon	<i>Falco rusticolus</i>	Gyr Falcon	No amendments
-	<i>Falco peregrinus</i>	Peregrine Falcon	<i>Falco peregrinus</i>	Peregrine Falcon	<i>Falco peregrinus</i> (was previously split as <i>F. peregrinus</i> and <i>F. pelegrinoides</i> following Sibley and Monroe (1990, 1993), but the two have now been lumped (del Hoyo and Collar 2014).
Remove species	<i>Falco pelegrinoides</i>	Barbary Falcon	-	-	Recommend removal of species from Annex 1. Barbary Falcon no longer recognised as full species. <i>Falco peregrinus</i> (del Hoyo and Collar 2014) was previously split as <i>F. peregrinus</i> and <i>F. pelegrinoides</i> following Sibley and Monroe (1990, 1993). See <a href="http://www.hbw.com/species/peregrine-falcon-falco-peregrinus">http://www.hbw.com/species/peregrine-falcon-falco-peregrinus</a> . Race <i>pelegrinoides</i> often accorded species status (usually incorporating <i>babylonicus</i> as a race), but is significantly variable in plumage (Rodríguez <i>et al.</i> 2011) and appears geographically and morphologically too indistinct a taxon to merit species status; in recent study, both <i>pelegrinoides</i> and <i>babylonicus</i> exhibited very small genetic difference from other forms, and indeed were as distant from each other as from any of the other races sampled (White <i>et al.</i> 2013a; White <i>et al.</i> 2013b); in addition, claimed sympatry with both <i>brookei</i> and <i>minor</i> without interbreeding in Morocco

					(Schollaert. & Willem 2000) seems unclear (White <i>et al.</i> 2013a).
<b>STRIGIFORMES</b>					
<b>Strigidae</b>					
	<i>Otus brucei</i>	Pallid Scops-owl	<i>Otus brucei</i>	Pallid Scops-owl	No amendments
Amend	<i>Otus scops</i>	Common Scops-owl	<i>Otus scops</i>	<u>Eurasian</u> Scops-owl	Recommend amending name to align with del Hoyo & Collar (2014).
	<i>Otus sunia</i>	Oriental Scops-owl	<i>Otus sunia</i>	Oriental Scops-owl	No amendments
Amend	<i>Nyctea scandiaca</i>	Snowy Owl	<u><i>Bubo scandiacus</i></u>	Snowy Owl	Nomenclature change as flagged in Inf Doc 13.3 from MoS1 and reflected in del Hoyo and Collar (2014). <i>Nyctea scandiaca</i> has been transferred to the genus <i>Bubo</i> following Wink and Heidrich (1999). Molecular evolution and systematics of the owls (Strigiformes) in König <i>et al.</i> (1999) Owls: a guide to the owls of the world.
-	<i>Strix uralensis</i>	Ural Owl	<i>Strix uralensis</i>	Ural Owl	No amendments
-	<i>Strix nebulosa</i>	Great Grey Owl	<i>Strix nebulosa</i>	Great Grey Owl	No amendments
Amend	<i>Surnia ulula</i>	Northern Hawk Owl	<i>Surnia ulula</i>	Northern Hawk-owl	Recommend amending name to align with del Hoyo & Collar (2014).
-	<i>Aegolius funereus</i>	Boreal Owl	<i>Aegolius funereus</i>	Boreal Owl	No amendments
Amend	<i>Ninox scutulata</i>	Brown Hawk-owl	<i>Ninox scutulata</i>	Brown <u>Boobook</u>	Recommend amending name to align with del Hoyo & Collar (2014). <i>Ninox scutulata</i> , <i>N. japonica</i> , <i>N. randi</i> and <i>N. obscura</i> (del Hoyo and Collar 2014) were previously lumped as <i>N. scutulata</i> following Sibley and Monroe (1990, 1993).
Amend	<i>Asio otus</i>	Long-eared Owl	<i>Asio otus</i>	<u>Northern</u> Long-eared Owl	Recommend amending name to align with del Hoyo & Collar (2014).
-	<i>Asio flammeus</i>	Short-eared Owl	<i>Asio flammeus</i>	Short-eared Owl	No amendments

## 2) Proposed additional species to be listed in Annex 1 of the Raptors MoU, in relation to their migratory behaviour

### 2.1 Background

As set out in the Introduction, as part of Activity 1, Task 1.1, Signatories asked the TAG to a) 'Review existing and possible candidate Annex 1 species in the light of changes to their status'. Such potential status changes include enhancement in our understanding of the migratory status of species as knowledge improves. During both the 1st and 2nd Meetings of the Technical Advisory Group (TAG1 and TAG2), held in January 2014 and March 2015, respectively, TAG members considered whether Annex 1 included all of the raptors in the African-Eurasian region that exhibit migratory behaviour.

During TAG1 a number of members with knowledge of vultures highlighted that while three species of African-Eurasian vulture are included in Annex 1, the remaining species are not, despite known or likely similarities in their ecology and migratory behaviour. This inconsistency, along with the evident conservation imperative of pressing threats driving population declines among this group in both Asia (already well-documented) and, increasingly, Africa, led to an action from TAG1 to establish a Sub-Group to collate evidence of the migratory status of vulture species to consider their potential listing within the Raptors MoU (and CMS). Although the initial focus of discussions at TAG1 was the potential listing of African vultures, for consistency, TAG reviewed all African-Eurasian vultures not already listed on Annex 1.

In carrying out Task 1.1 a) 'Review existing and possible candidate Annex 1 in the light of changes to their status', the TAG has also taken account Inf Doc 13.3 tabled at MoS1 entitled 'Update of scientific data underpinning the Raptors MoU'. The TAG has also considered as candidate Annex 1 species the 10 species (including three species of African-Eurasian vulture) listed in Annex 8b of Inf Doc 13.3 for which it was felt there was emerging evidence of migratory behaviour. The TAG also identified one additional species for consideration bringing the total candidate Annex 1 list to 20 species (Table B).

As a rapid check for obvious omissions, a comparison was made between the African-Eurasian raptor species that BirdLife International lists as 'full migrants' against Table A and Table B in this document. BirdLife's definition of 'migratory' is in general less inclusive than that adopted by CMS and there were no African-Eurasian raptors that BirdLife considers to be 'full migrants' which were not already included in Table A or Table B of this document. It is worth noting however that the original assessment of species to be included on Annex 1 (Goriup and Tucker 2005; Tucker and Goriup 2005) was based upon the definition of a 'migratory species' in the original text of CMS (below) and those authors did not appear to have been aware of the subsequent clarification of that definition offered in CMS Resolution 2.2 in 1988 (also below). Since that clarification leads to a more inclusive understanding of 'migratory', Signatories may consider it appropriate for the TAG to be asked to check whether there are any African-Eurasian raptor species not currently listed on the draft revised Annex 1 (presented in Annex A to this document) that should be considered 'migratory' according to the fully clarified CMS definition of a 'migratory species'. For example, during the triennium between MoS2 and MoS3, TAG could be requested to review whether any African-Eurasian raptor species not listed on draft Annex 1, but that BirdLife considers 'nomadic' or 'altitudinal migrants' might meet the fully clarified CMS definition.

The corollary of checking for omissions from Annex 1 is of course to check for commissions, where new evidence on the movements of poorly understood Annex 1 species suggests they should not be considered migratory. Although it would be possible to reassess whether all species originally listed on Annex 1 should be considered migratory according to the CMS definition and Resolution 2.2, during TAG1 and TAG2 this was not considered to be a high priority during this triennium, but could be considered again in the future if desired by Signatories to the Raptors MoU.

## 2.2 Definition of a 'migratory species' adopted by the Raptors MoU

The Raptors MoU adopts the CMS definition of a 'migratory species'. According to the CMS definition in the original CMS Convention text<sup>8</sup> (23 June 1979), a species can be considered a 'migratory species' where "the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries".

In October 1988, at the 2nd Conference of Parties to CMS, Resolution 2.2 was adopted and provides further clarification, as follows:

1. Adopts the following guidelines for the application of certain terms of the Convention interpreted in Article 1, paragraph 1:
  - (a) In the interpretation of the term "migratory species" in Article 1, paragraph 1 (a):
    - (i) The word "cyclically" in the phrase "cyclically and predictably" relates to a cycle of any nature, such as astronomical (circadian, annual etc.), life or climatic, and of any frequency;
    - (ii) The word "predictably" in the phrase "cyclically and predictably" implies that a phenomenon can be anticipated to recur in a given set of circumstances, though not necessarily regularly in time.

## 2.3 Current state of knowledge on movements of African-Eurasian raptors

In recent years, the expansion in the use of satellite telemetry has opened up opportunities to further our understanding of the movements of birds of prey. This is a fast-developing area of research, but while our understanding of the movements of some raptor species is increasing rapidly, for many others huge knowledge gaps remain. It is to be hoped that in the future we will have a far clearer picture of which species should qualify for inclusion in Annex 1 of the MoU. For the moment, however, judgements are needed on a case-by-case basis that will often rely on incomplete evidence.

## 2.4 Assessment of evidence for candidate Annex 1 species

In assessing candidate Annex 1 species against the CMS definition and clarification above of 'migratory', TAG have compiled a short summary of collated evidence for each species (2.4.2). These summaries were based on a brief literature search and unpublished information received from members of the TAG and other raptor researchers. The summaries were reviewed by TAG members in the light of their own experience of these species in different countries throughout the region. TAG then decided whether to recommend the species to Signatories for addition to Annex 1 or not. It is worth noting that while our knowledge is advancing rapidly for some of the candidate species in Table B, there are significant knowledge gaps relating to the movements of many of these species, which may not be filled for many years. For these species TAG has made a judgement on whether to recommend the species for inclusion in Annex 1 or not at this time, based upon what the available information appears to suggest about the species likely movement patterns.

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<sup>8</sup> <http://www.cms.int/en/convention-text>

**Table B:** List of species considered by TAG as candidates for listing in Annex 1 of the Raptors MoU on the basis of evidence of their migratory behavior.

Scientific name	Common name	IUCN Red List Status	Reason for consideration	TAG recommendation to Signatories
<i>Gypaetus barbatus</i>	Bearded Vulture	NT	Additional African-Eurasian Vulture species	Consider adding to Annex 1
<i>Necrosyrtes monachus</i>	Hooded Vulture	EN	Additional African-Eurasian Vulture species	Consider adding to Annex 1
<i>Gyps africanus</i>	White-backed Vulture	EN	Listed in Inf Doc 13.3 Annex 8b	Consider adding to Annex 1
<i>Gyps bengalensis</i>	White-rumped Vulture	CR	Additional African-Eurasian Vulture species	Consider adding to Annex 1
<i>Gyps indicus</i>	Indian Vulture	CR	Additional African-Eurasian Vulture species	Consider adding to Annex 1
<i>Gyps tenuirostris</i>	Slender-billed Vulture	CR	Additional African-Eurasian Vulture species	Consider adding to Annex 1
<i>Gyps rueppelli</i>	Rüppell's Vulture	EN	Additional African-Eurasian Vulture species	Consider adding to Annex 1
<i>Gyps himalayensis</i>	Himalayan Griffon	NT	Listed in Inf. Doc 13.3 Annex 8b	Consider adding to Annex 1
<i>Gyps coprotheres</i>	Cape Vulture	VU	Listed in Inf. Doc 13.3 Annex 8b	Consider adding to Annex 1
<i>Sarcogyps calvus</i>	Red-headed Vulture	CR	Additional African-Eurasian Vulture species	Consider adding to Annex 1
<i>Trigonoceps occipitalis</i>	White-headed Vulture	VU	Additional African-Eurasian Vulture species	Consider adding to Annex 1
<i>Torgos tracheliotos</i>	Lappet-faced Vulture	VU	Additional African-Eurasian Vulture species	Consider adding to Annex 1
<i>Circaetus pectoralis</i>	Black-chested Snake-eagle	LC	Listed in Inf. Doc 13.3 Annex 8b	Consider adding to Annex 1
<i>Circaetus beaudouini</i>	Beaudouin's Snake-eagle	VU	Listed in Inf. Doc 13.3 Annex 8b	Consider adding to Annex 1
<i>Circaetus cinereus</i>	Brown Snake-eagle	LC	Listed in Inf. Doc 13.3 Annex 8b	Consider adding to Annex 1
<i>Polyboroides typus</i>	African Harrier-hawk	LC	Listed in Inf. Doc 13.3 Annex 8b	Not recommended for addition on basis of current evidence
<i>Hieraaetus ayresii</i>	Ayres's Hawk-eagle	LC	Listed in Inf. Doc 13.3 Annex 8b	Consider adding to Annex 1
<i>Falco cuvierii</i>	African Hobby	LC	Listed in Inf. Doc 13.3 Annex 8b	Consider adding to Annex 1
<i>Falco jugger</i>	Laggar Falcon	NT	Suggested for consideration during TAG 2 meeting	Not recommended for addition on basis of current evidence
<i>Asio capensis</i>	Marsh Owl	LC	Listed in Inf. Doc 13.3 Annex 8b	Consider adding to Annex 1

## 2.4.1 Considerations regarding proposed listing in Annex 1 of additional African-Eurasian vulture species

### Background

The background to the TAG decision to consider the group of African-Eurasian vulture species for potential Annex 1 candidacy is described earlier (2.1 Background). African-Eurasian vultures are covered by the Raptors MoU taxonomically and there are three species already listed on Annex 1 (Cinereous Vulture, Egyptian Vulture and Griffon Vulture), so the TAG's view is that adding other species which meet the CMS definition of a 'migratory species' is entirely appropriate and would improve the consistency of Annex 1. In addition, there is a clear conservation imperative to take action to conserve vultures and to address the threats driving worrying population declines in these species across the African-Eurasian region. As a widely and increasingly supported intergovernmental agreement (52 Signatories – 1 July 2015) specifically for migratory birds of prey, including vultures, the Raptors MoU is ideally placed to facilitate cooperation between governments to promote such action.

There is considerably variation in the extent to which the different candidate Annex 1 vulture species have been studied and not all species have been satellite tracked to allow in depth understanding of their movements. While many vulture species may not traditionally have been seen as migrants, the more we discover about the very large size of their home ranges (often hundreds of thousands of km<sup>2</sup>) and the scale and frequency of the movements they undertake (with single individuals passing through several countries in a year), as well as the seasonal changes in the pattern of their movements, the clearer it becomes that in general the movements made by vulture species meet the CMS definition of 'migratory species'. Moreover, it is clear that international cooperation will be an essential ingredient in the recovery and long-term conservation of these species. Paragraph 6 of the Raptors MoU text<sup>9</sup> highlights the commitment Signatories have made to 'apply the precautionary principle' in their endeavours to achieve and maintain favourable conservation status of birds of prey. Given the scale of population declines and the severity of the threats faced by African-Eurasian vultures, TAG is proposing that Signatories apply the precautionary principle and list all 12 additional African-Eurasian vulture species on Annex 1 of the Raptors MoU.

### Defining the vulture candidate species list

The list of candidate vulture species included all African-Eurasian vulture species not currently listed on Annex 1 which have a significant portion of their global range within the region covered by the Raptors MoU, except for Palm-nut Vulture. Palm-nut vulture was excluded from consideration during TAG2 deliberations because it is very unlike the other vulture species, having a completely different diet and ecology. It is also not under pressure from the same threats as the other vulture species, remaining Least Concern on the IUCN Red List.

### The conservation imperative for listing on Annex 1 of the Raptors MoU

All of the African-Eurasian vulture species considered as candidates for Annex 1 listing are considered threatened or near-threatened on the IUCN Global Red List (BirdLife International 2014a). Four are Critically Endangered, three species are Endangered, three Vulnerable, and two species are Near Threatened. Globally, vultures are one of the fastest declining groups of birds (Virani *et al.* 2011) and declines have been reported from across the African-Eurasian region covered by the Raptors MoU (Anderson 2007; Brown 1991; Donazar *et al.* 2009; Thiollay 2007; Mondajem *et al.* 2012; Becker *et al.* 2009; Green *et al.* 2004; Gilbert *et al.* 2006; Pain *et al.* 2008; Thiollay 2006; Virani *et al.* 2011). Botha *et al.* (2012) highlighted the fact that populations of a number of species have been in drastic decline

<sup>9</sup>[http://www.cms.int/raptors/sites/default/files/basic\\_page\\_documents/MoU\\_Birds\\_of\\_Prey\\_with\\_annexes\\_E.pdf](http://www.cms.int/raptors/sites/default/files/basic_page_documents/MoU_Birds_of_Prey_with_annexes_E.pdf)

in Africa over the past 30 years. In West Africa an average decline of 42% has been reported in vulture populations, with some species believed to be declining by as much as 85% (Rondeau & Thiollay 2004). The situation is also serious in East Africa where some species are now restricted to the large protected areas and others have shown severe population declines.

The causes of population declines in Africa are not fully understood, although food shortage, poisoning, land-use change and killing for use of body parts have been suggested as important factors (Thiollay 2006; Thiollay 2007; Virani *et al.* 2011; Allan 1989; Mondajem *et al.* 2012; Phipps *et al.* 2013a). Population declines of Gyps vultures were first noticed in Asia in the early-to-mid 1990s and the veterinary drug Diclofenac was identified as a key cause of many of these declines (Oaks *et al.* 2004; Green *et al.* 2004; Green *et al.* 2006; Schultz *et al.* 2004). Observed rates of population decrease in Asia are among the highest recorded for any bird species, with total declines in excess of 99.9% for the Oriental white-backed vulture (*Gyps bengalensis*) in India between 1992 and 2007. Long-billed (*Gyps indicus*) and Slender-billed (*Gyps tenuirostris*) vultures declined by 96.8% over the same period (Prakash, *et al.* 2007).

Most of the key threats thought to be driving declines in vulture populations are shared by many countries in the African-Eurasian region and trans-national conservation measures will be required to successfully tackle these issues (Phipps *et al.* 2013a; Casey, 2007). The Raptors MoU, as the key intergovernmental conservation mechanism under which vultures belong taxonomically, has the potential to provide a framework and to act as a vehicle for such international cooperation to address threats to vultures.

### **Overview of current understanding of vulture movements**

Vulture movement patterns are not well understood (Mondajem *et al.* 2012). However, our knowledge is expanding rapidly with the spread in use of satellite tracking technology, resulting in many of the commonly held assumptions about the scale of vulture movements being over-turned by recent evidence from satellite telemetry. While still in its infancy, in recent years there has been a significant increase in satellite tracking studies, particularly of African vultures. In Asia, research has tended to focus on understanding the causes of massive observed population declines and so our knowledge of movements of Asian vulture species is, perhaps, even less complete. Movements of Asian vulture species are not well understood and indeed the range of movement patterns exhibited by many species may have reduced in tandem with their disappearance (Naoroji 2006) from much of their former range.

Vultures eat carrion and individuals can travel vast distances in a short space of time as a response to a high degree of spatial and temporal variation in their food resources (Murn *et al.* 2013; Urios *et al.* 2010). Use of soaring flight allows vultures to maintain extremely large foraging ranges and there is increasing evidence that vultures may undertake predictable, cyclical seasonal movements, for example clustering around migratory herds of ungulates during the dry season when herds experience highest mortality (Kendall *et al.* 2013) or displaying predictable seasonal changes in foraging range driven by food availability and detectability (Phipps *et al.* 2013a; Cronje 2002; Schultz 2007).

In many vulture species different patterns of movement may be observed in adults during the breeding and non-breeding seasons. Vultures tend not to breed in their first three years of life and, in part because their foraging ranges are not restricted by ties to a nest site (Houston 1976; Mundy *et al.* 1992), immature birds tend to range over much larger areas than adults (Duriez *et al.* 2011; Meyburg *et al.* 2004; Mundy *et al.* 1992; Margalida *et al.* 2013), which might also affect exposure to risk from various threats and their consequent survival prospects (Grande *et al.* 2009; Ortega *et al.* 2009).

## 2.4.2 Summary evidence concerning migratory behaviour of candidate Annex 1 species

### **Bearded Vulture (*Gypaetus barbatus*):**

Bildstein (2006) lists this species as a partial and altitudinal migrant. In the Pyrenees, satellite tagged non-breeding birds had a mean home range size of 12,057 km<sup>2</sup> with the home ranges of most individuals straddling Spain and France (Gil *et al.* 2014). Immatures from the Alps are occasionally recorded in the Netherlands and in Denmark (Génsbøl 2008). Urios *et al.* (2010) recorded a satellite tagged second year Bearded Vulture ranging over an area of 38,500 km<sup>2</sup> across the mountainous regions of Lesotho and the north-eastern Cape province of South Africa. Home ranges for marked individuals in the South African population ranged between 75 and 80 km in diameter (Brown 1997), but daily movements longer than 80 km have been reported, especially for juveniles (Mundy *et al.* 1992). Kruger *et al.* (2014) found that average adult home range in satellite tagged individuals (286 km<sup>2</sup>) were only around 1% the size of the average foraging ranges of non-adults (10 540 –25 985 km<sup>2</sup>), with those of breeding adults being smaller (95 km<sup>2</sup>). Most of these tracked birds were making movements between South Africa and Lesotho.

- **TAG recommendation: Add species to Annex 1**

### **Hooded Vulture (*Necrosyrtes monachus*):**

Generally considered sedentary, but immatures, and other non-breeders, are somewhat dispersive (BirdLife International 2015a; Ferguson-Lees and Christie 2001). Bildstein (2006) lists this species as an irruptive and local migrant. Regional movements observed in some parts of West Africa in response to seasonal rains (Ferguson-Lees and Christie 2001). It is a migrant in Djibouti and Swaziland and a vagrant in Morocco (Ferguson-Lees and Christie 2001, Ogada and Buij 2011). Satellite tracking underway in 2014 in South Africa (K. Bildstein pers. comm.) has demonstrated single individuals travelling several hundreds of kilometres from the capture site and moving between South Africa, Mozambique and Zimbabwe. Bildstein (pers. comm.) also has satellite tracking evidence of individuals which have moved between the Gambia and Senegal and South Africa and Zimbabwe, while Ethiopian tagged birds have so far remained in Ethiopia.

- **TAG recommendation: Add species to Annex 1**

### **White-backed Vulture (*Gyps africanus*):**

Bildstein (2006) lists the species as a partial migrant and rains migrant. Generally considered sedentary, but individuals will wander of huge areas in search of food (BirdLife International 2015b, Ferguson-Lees and Christie 2001). Juveniles, in particular, disperse over vast areas. Six immature birds tracked from South Africa were found to range across six countries (South Africa, Namibia, Angola, Zambia, Botswana and Zimbabwe) and three were noted to travel more than 900km from their place of capture (Oschadleus 2002, Phipps *et al.* 2013a) with mean foraging range of 269,103 km<sup>2</sup>. Some populations are thought to shift their ranges in response to prey availability and seasonal rains (Ferguson-Lees and Christie 2001). Monadjem (2012) found that White-backed Vultures fitted with patagial tags in South Africa crossed into Zimbabwe and some were re-sighted more than 400km from the capture site. Murn & Botha reported (pers. comm.) that a single satellite tagged individual has been recorded moving more than 1,000km between South Africa, Botswana, Angola, Namibia, Zimbabwe and Mozambique, while another individual has travelled between South Africa, Zimbabwe, Zambia, Botswana and a third, between South Africa, Zimbabwe, Mozambique and Swaziland. Kendall (pers. comm,) has satellite tagged this species in Kenya and found an average home range size of 50,000 km<sup>2</sup> and individual movements between Kenya and Tanzania and Uganda and Democratic Republic of Congo.

- **TAG recommendation: Add species to Annex 1**

**White-rumped Vulture (*Gyps bengalensis*):**

Bildstein (2006) lists this species as a partial migrant, while Ferguson-Lees and Christie (2001) consider that it is 'largely sedentary, but forages over large areas and immatures more nomadic'. del Hoyo *et al.* (1994) mention some seasonal altitudinal movements in Nepal, with vagrants having reached Borneo. Naoroji (2006) comments that Afghanistan attracts a migrant population during summer, presumably from Pakistan. Some indication of the likely scale of this species movements in Pakistan is provided by an experimental study involving set-up of a vulture restaurant (thereby reducing the scale of the birds' movements) where individual three month home ranges varied from 1,824 km<sup>2</sup> to 68,930 km<sup>2</sup> (Gilbert *et al.* 2007). Initial maps of the movements of satellite-tracked individuals (C. Bowden pers. comm.) indicate that they range over 1,000km and cross the border between Nepal and India (BCN<sup>10</sup>, BNHS<sup>11</sup>, RSPB<sup>12</sup>) and Laos, Cambodia and Vietnam (WCS<sup>13</sup>).

- **TAG recommendation: Add species to Annex 1**

**Indian Vulture (*Gyps indicus*):**

Largely sedentary, however individuals forage over considerable areas and immatures are perhaps more nomadic (Ferguson-Lees and Christie 2001). Categorized by Bildstein (2006) as an irruptive and local migrant and Naoroji (2006) shows a distribution map of the species where it is present across much of India, described as an uncommon to rare resident (with local migration).

- **TAG recommendation: Add species to Annex 1**

**Slender-billed Vulture (*Gyps tenuirostris*):**

Largely sedentary, however individuals forage over considerable areas and some seasonal altitudinal movement (Ferguson-Lees and Christie 2001). Immatures are perhaps more nomadic (Ferguson-Lees and Christie 2001). Categorized by Bildstein (2006) as an irruptive and local migrant. There is satellite tracking evidence (WCS<sup>14</sup>) of individuals crossing the border between Laos, Cambodia and Vietnam (C. Bowden pers. comm.). Naoroji (2006) reports that some southward winter movement exists, and in winter the species has been seen in India well south of the narrow range in the north where it is normally considered resident.

- **TAG recommendation: Add species to Annex 1**

**Rüppell's Vulture (*Gyps rueppelli*):**

Daily foraging movements of up to 150–200 km have been recorded (see Ferguson-Lees and Christie 2001) and in West Africa they regularly disperse several hundreds of kilometres north and south in response to seasonal rains (del Hoyo *et al.* 1994). Bildstein (2006) lists the species as an irruptive and local migrant. However, in the last 15 years, the species has been recorded far away from its breeding colonies reaching the Iberian Peninsula and north-eastern South Africa (Ferguson-Lees and Christie 2001, De Juana 2006). Indeed, it has been suggested that the movement of Rüppell's Vulture, in associated with Griffon Vultures (*Gyps fulvus*), across the Strait of Gibraltar into Europe may be a regular, annual and considerably under recorded phenomenon (De Juana 2006, Ramírez *et al.* 2011, Gutiérrez 2003). Ogada (2014) found that the home range size of a satellite tagged adult was 55,144 km<sup>2</sup>, while that of an immature bird was 174,680 km<sup>2</sup>. Kendall (pers. comm.) has found the average home range of this species to be 100,000 km<sup>2</sup> with individuals moving between Kenya and Tanzania.

- **TAG recommendation: Add species to Annex 1**

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<sup>10</sup> Bird Conservation Nepal

<sup>11</sup> Bombay Natural History Society

<sup>12</sup> Royal Society for the Protection of Birds, UK

<sup>13</sup> Wildlife Conservation Society

<sup>14</sup> Wildlife Conservation Society

**Himalayan Griffon (*Gyps himalayensis*):**

Bildstein (2006) lists this species as a partial and rains migrant. Generally considered non-migratory (BirdLife International 2015c) with some seasonal altitudinal movements (Ferguson-Lees and Christie 2001). However, immature individuals are increasingly known to wander large distances beyond Sino-Himalaya and Central Asia in the winter, into the plains of South and Southeast Asia (Ding & Kasorndorkbua 2008); between 1979 and 2008, there were over 30 records, involving many more individual vultures, from all countries of South-East Asia except Laos and Vietnam and it is suggested that food shortage in the boreal winter may be driving long-distance winter dispersal movements over and above altitudinal migration (Ding & Kasorndorkbua 2008). The species has also recently been recorded from a number of locations in southern India (Praveen *et al.* 2014). Naoroji (2006) describes it as a common resident throughout the Himalayas 'prone to some altitudinal winter migration' where it descends into the lower foothills. Its winter movements and extent of wandering into the plains have not been fully monitored. Naoroji (2006) also reports that a satellite-tagged individual in India was tracked to Kazakhstan (Vibhu Prakash and Debbie Pain, pers. comm.), suggesting that the resident population is augmented by extralimital migrants.

- **TAG recommendation: Add species to Annex 1**

**Cape Vulture (*Gyps coprotheres*):**

Bildstein (2006) lists this species as an irruptive and local migrant. Phipps *et al.* (2013b) reported home ranges of 121,655 km<sup>2</sup> in five adults satellite tracked from South Africa and 492,300km<sup>2</sup> in four immature birds tracked. The vultures travelled more than 1,000 km from the capture site and long-distance cross-border movements were not unusual with a total of five countries (Namibia, Botswana, Zimbabwe, Lesotho and South Africa) entered by different vultures. A Cape Vulture satellite tracked in 2014 was recorded moving more than 1,000km between South Africa, Botswana, Zimbabwe and Mozambique (Hoogstad pers. comm.). Bamford *et al.* (2007) recorded a mean home range of juveniles of 482,276 km<sup>2</sup>, an order of magnitude larger than the mean home range of adults which was 21,320 km<sup>2</sup>. A single immature individual was recorded as having moved between Namibia, Botswana, Zambia and Angola during a 6 month period.

- **TAG recommendation: Add species to Annex 1**

**Red-headed Vulture (*Sarcogyps calvus*):**

Bildstein (2006) categorises Red-headed Vulture as an irruptive and local migrant. Ferguson-Lees and Christie (2001) regard it as largely sedentary, however individuals forage over considerable areas and there is some seasonal altitudinal movement. Immatures are perhaps more nomadic (Ferguson-Lees and Christie 2001). Very little is currently known about the movements of this species, but new satellite-tracking data (BCN<sup>15</sup>, BNHS<sup>16</sup>, RSPB<sup>17</sup>) are indicating that at least some birds move between Indian and Nepal (C. Bowden pers. comm.)

- **TAG recommendation: Add species to Annex 1**

**White-headed Vulture (*Trigonoceps occipitalis*):**

Adults largely sedentary, perhaps more so than any other African vulture, however, there is evidence of seasonal movements in West Africa and immatures are more nomadic (del Hoyo *et al.* 1994, Ferguson-Lees and Christie 2001). Possibly migrates down the Rift Valley in Uganda in July (del Hoyo *et al.* 1994). Ecological knowledge of the White-headed Vulture is generally low (Virani and Watson 1998; Monadjem 2004), and Murn and Holloway (2014) remarked that there are no published data on the detailed movements of adult White-headed Vultures, but recent results from satellite tracked

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<sup>15</sup> Bird Conservation Nepal

<sup>16</sup> Bombay Natural History Society

<sup>17</sup> Royal Society for the Protection of Birds, UK

individuals in South Africa (Murn & Botha pers. comm. 2015) show individuals moving between South Africa and Mozambique, albeit with apparently smaller home-ranges than some of the other African vultures.

- **TAG recommendation: Add species to Annex 1**

**Lappet-faced Vulture (*Torgos tracheliotos*):**

Bildstein (2006) lists this species as a partial and rains migrant. Ferguson-Lees and Christie (2001) describe the species as ‘often sedentary, but even adults are highly nomadic at times’. In West Africa there is some dispersal in response to seasonal rains. Vagrants are reported in Morocco, southern Libya, Jordan (where they may possibly have bred) and Spain (Ferguson-Lees and Christie 2001). Murn & Botha (pers. comm. 2015) satellite tagged an individual which was seen to move more than 200 km from the capture site in South Africa and travel into Mozambique. Immatures are especially wide-ranging, with one individual known to have travelled over 800 km from northeast South Africa to Zambia (Ferguson-Lees and Christie 2001). Kendall (pers. comm.) found an average home range size of 22,000km<sup>2</sup> and found individuals moved between Kenya and Tanzania. Two immature individuals satellite tagged in Saudi Arabia (Shobrak 2014) had a mean home range size of 283,380 km<sup>2</sup> and moved away from the capture site in winter to areas around 400 km distant before returning in the autumn. Shobrak suggested that if other populations show similar movements, this species should be considered for listing under the CMS Raptors MoU.

- **TAG recommendation: Add species to Annex 1**

**Black-chested Snake-eagle (*Circaetus pectoralis*):**

Brown *et al.* (1982) regard this species as a partial migrant and/or nomadic and suggest that ‘Southern populations...probably move north in southern winter to Zimbabwe (Apr-Sept) when local residents are breeding, but movements not well recorded; near equator sedentary’. del Hoyo *et al.* (1994) describe it as ‘known to be highly nomadic and possibly even makes regular intra-African migrations: a non-breeding visitor, moving regularly into several areas, or numbers fluctuating considerably in others, but details unclear’. Bildstein (2006) lists this species as a partial migrant. Harrison *et al.* (1997) suggest that ‘two populations may occur in southern Africa: a nomadic breeding population and non-breeding visitors from beyond the region’. In Zambia this species is described as ‘present throughout the year’...‘greatest numbers are noted in the dry season’ (Dowsett-Lemaire & Dowsett 2014). Dowsett *et al.* (2008) says that in Zambia ‘Numbers are greatest during the dry season (March-October), implying that seasonal movements occur’. Herholdt & Anderson (2006) in a park on the border of Botswana and South Africa recorded population fluctuations that agreed with observations elsewhere in Africa, and which they felt could not be explained by local fluctuations in rainfall, but could be driven by conditions elsewhere in Africa. A marked decline in numbers was recorded in the winter months. In 1988 they observed large numbers of birds (particularly immatures) which could have represented an influx from elsewhere in Botswana or Africa. The authors highlight that ‘movements of this species are, however, poorly understood and need further research’.

- **TAG recommendation: Add species to Annex 1**

**Beudouin’s Snake-eagle (*Circaetus beudouini*):**

Dowsett *et al.* (2008) consider this species ‘probably resident and partial migrant’ in Ghana. ‘Recorded all seasons, but too few records to be certain of possible movements’. For West Africa in general ‘some movement north into the Sahel noted in the rains, and this was also observed in N. Cameroon’. del Hoyo *et al.* (1994) consider it ‘a regular seasonal migrant between moist wooded savannas and the Sahel: most birds move North with rains and South in dry season, in association with grass fires and reduced ground cover. In some areas patterns of movement have been masked by confusion with *C. gallicus*’. Bildstein (2006) lists this species as a partial migrant. Brown *et al.*

(1982) suggest the species is a partial migrant and/or nomadic and record that 'In W. Africa ... performs ill-defined N-S movements, flying south in dry season, north in rains; associated with grass fires and reduced cover'.

- **TAG recommendation: Add species to Annex 1**

**Brown Snake-eagle (*Circaetus cinereus*):**

Harrison *et al.* (1997) describe this species as 'a vagrant to the Eastern Cape Province' and 'a summer visitor to the southwestern Cape Province' and cite Tarboton & Allan (1984) who 'classed it as a common breeding nomad in the Transvaal with numbers fluctuating annually; a bird ringed in the Transvaal was recovered 2,000km away in Zaire. Hence there is evidence for nomadism or seasonal movements. The models show a pattern of increased reporting rates in the western zones during the summer, with the opposite pattern in the northeast ... suggesting the possibility of an east-west pattern of movement ... no seasonality was apparent in Swaziland'. Harrison *et al.* (1997) however found no evidence of seasonality mid-way south in the eastern zones of southern Africa. Brown Snake-eagle is considered resident in Ghana and Zambia (Dowsett *et al.* 2008; Dowsett-Lemaire & Dowsett 2014). Bildstein (2006) lists it as an irruptive and local and rains migrant. In Kenya, Lewis & Pomeroy (1989) describe it as 'thought to be resident'... with the 'possibility of irregular local movements and ... reports (of) ... irregular fluctuations in the semi-arid Baringo area. Pairs require as much as 200km<sup>2</sup> of suitable habitat in Arid Tsavo and semi-arid Embu'. Zimmerman *et al.* (1996) describe it in Kenya and northern Tanzania as 'a widespread fairly common resident ... Few breeding records'. del Hoyo *et al.* (1994) describe it as 'Resident and sedentary in many areas, but long distance ringing recoveries (up to 2,100km) and fluctuations in numbers in S and E Africa suggest some intra-African movements. In W Africa may move S in dry season and N when rains increase ground cover'. Ferguson-Lees & Christie (2001) says 'Generally considered sedentary, but in some regions nomadic, often apparently not breeding annually in same areas, though individual pairs have large home-ranges up to 200 km<sup>2</sup>; apparently mainly dry-season visitor in southern Senegambia, moving northwards during rains. One ringed in northeastern South Africa recovered seven years later 2,100 km away in DR Congo'.

- **TAG recommendation: Add species to Annex 1**

**African Harrier-hawk (*Polyboroides typus*):**

Brown *et al.* (1982) describe African Harrier-hawk as 'Apparently completely sedentary throughout range, pairs present in territory year-round Ivory Coast ..., Guinea, Liberia, Zaire, Rwanda and Burundi ... In E and South Africa may be more nomadic, but not known to perform any regular migrations'. Bildstein (2006) lists this species as a partial and rains migrant. del Hoyo *et al.* (1994) describes it as 'resident and sedentary in most areas, but a regular wet season migrant into Sahel Zone of W Africa: some vagrancy into marginal habitats, especially in S Africa. Ferguson-Lees (2001) says 'Generally considered sedentary except in southern Africa, where locally nomadic; in West Africa possibly some northward movement towards desert edge during rains'. In Harrison *et al.* (1997), 'The atlas of southern African birds' suggests that the pattern of reporting rates in different zones along with paucity of breeding records in the northwestern part of southern Africa raises the possibility that there could be east-west migration in the north which needs further investigation. Lewis & Pomeroy (1989), A bird atlas of Kenya states that 'The species is generally ... thought to be resident ... it is resident in semi-arid (areas), but a sporadic non-seasonal visitor to arid Tsavo'. Dowsett *et al.* (2008) says that in Zambia the species is 'Resident, with local wandering; probably occurs throughout the country'.

- **TAG recommendation: Not proposed for addition to Annex 1 on basis of current evidence**

**Ayres's Hawk-eagle (*Hieraaetus ayresii*):**

Bildstein (2006) lists this species as 'irruptive and local migrant' and indicates that it is also a rains migrant. Ferguson-Lees and Christie (2001) consider it largely sedentary across most of its range, however, regular movements take place in various regions. It is a partial migrant in Zambia, Zimbabwe and South Africa. Elsewhere, seasonal movements in response to rain are probably commonplace (Ferguson-Lees and Christie 2001). Harrison *et al.* (1997) state that in Southern Africa it has been recorded breeding in Zimbabwe and may breed in northern Botswana too. Elsewhere it occurs as a nonbreeding intra-African summer visitor. Models show its absence in winter in the southern-most part of its range. Dowsett-Lemaire & Dowsett (2014) consider the species resident in Ghana, while in Zambia Dowsett *et al.* (2008) consider it resident on the Copperbelt. They record that in parts of S. Zambia it is said to be absent in the cold winter months (e.g. May –Sept), but that 'this could simply be because this discreet eagle is breeding then'. Zimmerman *et al.* (1996) describe it as a scarce and local resident in Kenya.

- **TAG recommendation: Add species to Annex 1**

**African Hobby (*Falco cuvierii*):**

del Hoyo *et al.* (1994) 'Handbook of the Birds of the World' describes this species as 'Resident as pairs in many areas, but may be locally migratory in parts of W. Africa. A wet season vagrant sometimes breeding to the periphery of its range in NE Kenya and S Africa. No details of movements available'. Ferguson-Lees & Christie (2001) 'Raptors of the World' describes the species as 'Variously sedentary and nomadic, perhaps in relation to food supply'. Bildstein (2006) lists the species as an 'irruptive and local migrant'. A draft atlas map (Baker & Baker in prep.) for this species in Tanzania shows a notable reduction in records for the species in Tanzania April – July and the authors consider that the species could be a partial migrant. There is further evidence supporting this in Harrison *et al.* (1997) who cite Irwin (1981), who suggested this species might be a summer migrant to southern Africa, and states that atlas data support this with the vast majority of records between September and April and very few breeding records in Southern Africa. Dowsett *et al.* (2008) present evidence that African Hobby should be considered a partial migrant in Zambia. Dowsett-Lemaire & Dowsett (2014) consider the species resident in Ghana, although they do not exclude the possibility of local movements.

- **TAG recommendation: Add species to Annex 1**

**Laggar Falcon (*Falco jugger*):**

del Hoyo *et al.* (1994) 'Handbook of the Birds of the World' considers Laggar Falcon to be 'sedentary'. Naoroji (2006) in 'Birds of Prey of the Indian Subcontinent' describes it as 'resident, widespread throughout the Indian subcontinent' and later mentions 'observers never saw it in upper Assam. Its status and distribution throughout the Northeast needs thorough review especially as the wet, humid, forested habitat there is not suitable for the species. To some extent a partial local migrant in some areas'... 'Today uncommon resident and local migrant in western Maharashtra where earlier recorded as very common. In Afghanistan mainly a vagrant and rare passage migrant, breeding recorded from Nuristan'. Naoroji (2006) shows a range map with the species as resident or rare resident across the vast majority of its range with a couple of small areas where it is marked as vagrant. In Paludan (1959), Laggar is listed as 'Breeding in SE? of Afghanistan'. Roberts (1991) described it as 'resident' and in Grimmett, Roberts & Inskipp (2008) as 'Rare resident'. Bildstein (2006) lists Laggar Falcon as an irruptive and local migrant. Ferguson-Lees (2001) describes the species as 'Generally sedentary, put partial local migration in India. Old specimens from southern Turkmenistan and northeast Uzbekistan indicate wider wandering or more northerly breeding'.

- **TAG recommendation: Not proposed for addition to Annex 1 on basis of current evidence**

**Marsh Owl (*Asio capensis*):**

del Hoyo *et al.* (1994) describes Marsh Owl as 'Partially migratory; wanders to uncertain extent outside the breeding season. May leave areas during wet season; confirmed non-breeding visitor to coastal Gambia. Also nomadic when habitat destroyed by grass fires or drought; often local irruptions of considerable numbers ...' König & Weick (2008) in 'Owls of the World' consider it 'In general resident, but partly nomadic within sub-Saharan Africa and an intra-African migrant'. Mikkola (2012) mentions that it is 'locally common in 20 countries south of the Sahara, but little studied. Migrants and vagrants seen in a further six countries from Mauritania to Congo'. Harrison *et al.* (1997) state 'They are generally thought to be nomadic ... since numbers fluctuate erratically, probably in response to changes in the availability of prey and ground cover for roosting and nesting; the extent of these movements remains unknown. Fluctuations in numbers in response to droughts and pluvials have been observed in Zimbabwe ...' In the same publication they consider substantial fluctuations in reporting rates between winter and summer in the grasslands of eastern South Africa to be attributable to seasonal changes in crepuscular activity. They do not consider that converse fluctuations in reporting rates in other areas are sufficient to suggest migration into these grasslands from elsewhere, but do not rule out movements into this part of southern Africa from outside the region or from Mozambique. Brown *et al.* (1982) consider it 'Resident, partly nomadic and partly intra-African migrant ... Regularly migrates to Gambia in wet season (June-Oct.), probably from Mali 1,000km to the east ... No regular migration known for eastern or southern Africa, but nomadic when habitat altered ... Wanders widely (including rarely across Mediterranean or Iberian peninsula), then vagrant to desert areas (Namibia)'. Dowsett (2008) considers it 'Resident in Zambia, with some wandering to low levels. Present all months, with numbers locally high Jun-Dec, probably post-breeding flocks'.

- **TAG recommendation: Add species to Annex 1**

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## Annex A

## TAG proposals for the revised Annex 1 of the Raptors MoU (with the original Annex 1 included for comparison)

Annex 1 to the Raptors MoU				Proposed revised Raptors MoU Annex 1 (July 2015)		
Order	Family	Scientific name	Vernacular name	Scientific name	Vernacular name	Notes
FALCONIFORMES	Pandionidae	<i>Pandion haliaetus</i>	Osprey	<i>Pandion haliaetus</i>	Osprey	No amendments
	Accipitridae	<i>Aviceda cuculoides</i>	African Baza	<i>Aviceda cuculoides</i>	African Cuckoo-hawk	No amendments
		<i>Aviceda jerdoni</i>	Jerdon's Baza	<i>Aviceda jerdoni</i>	Jerdon's Baza	No amendments
		<i>Aviceda leuphotes</i>	Black Baza	<i>Aviceda leuphotes</i>	Black Baza	No amendments
		<i>Pernis apivorus</i>	European Honey-buzzard	<i>Pernis apivorus</i>	European Honey-buzzard	No amendments
		<i>Pernis ptilorhynchus</i>	Oriental Honey-buzzard	<i>Pernis ptilorhynchus</i>	Oriental Honey-buzzard	No amendments
		<i>Chelictinia riocourii</i>	African Swallow-tailed Kite	<i>Chelictinia riocourii</i>	Scissor-tailed Kite	No amendments
		<i>Milvus lineatus</i>	Black-eared Kite	-	-	Remove from Annex 1 (taxonomic change)
		<i>Milvus milvus</i>	Red Kite	<i>Milvus milvus</i>	Red Kite	No amendments
		<i>Milvus migrans</i>	Black Kite	<i>Milvus migrans</i>	Black Kite	No amendments
		<i>Haliaeetus leucoryphus</i>	Pallas's Fish-eagle	<i>Haliaeetus leucoryphus</i>	Pallas's Fish-eagle	No amendments
		<i>Haliaeetus albicilla</i>	White-tailed Eagle	<i>Haliaeetus albicilla</i>	White-tailed Sea-eagle	No amendments
		<i>Haliaeetus pelagicus</i>	Steller's Sea-eagle	<i>Haliaeetus pelagicus</i>	Steller's Sea-eagle	No amendments
		-	-	<i>Gypaetus barbatus</i>	Bearded Vulture	Addition to Annex 1 (migratory species)
		<i>Neophron percnopterus</i>	Egyptian Vulture	<i>Neophron percnopterus</i>	Egyptian Vulture	No amendments
		-	-	<i>Necrosyrtes monachus</i>	Hooded Vulture	Addition to Annex 1 (migratory species)
		-	-	<i>Gyps africanus</i>	White-backed Vulture	Addition to Annex 1 (migratory species)
		-	-	<i>Gyps bengalensis</i>	White-rumped Vulture	Addition to Annex 1 (migratory species)
		-	-	<i>Gyps indicus</i>	Indian Vulture	Addition to Annex 1 (migratory species)
	-	-	<i>Gyps tenuirostris</i>	Slender-billed Vulture	Addition to Annex 1 (migratory species)	

-	-	<i>Gyps rueppelli</i>	Rüppell's Vulture	Addition to Annex 1 (migratory species)
-	-	<i>Gyps himalayensis</i>	Himalayan Griffon	Addition to Annex 1 (migratory species)
<i>Gyps fulvus</i>	Griffon Vulture	<i>Gyps fulvus</i>	Griffon Vulture	No amendments
-	-	<i>Gyps coprotheres</i>	Cape Vulture	Addition to Annex 1 (migratory species)
-	-	<i>Sarcogyps calvus</i>	Red-headed Vulture	Addition to Annex 1 (migratory species)
-	-	<i>Trigonoceps occipitalis</i>	White-headed Vulture	Addition to Annex 1 (migratory species)
<i>Aegypius monachus</i>	Cinereous Vulture	<i>Aegypius monachus</i>	Cinereous Vulture	No amendments
-	-	<i>Torgos tracheliotos</i>	Lappet-faced Vulture	Addition to Annex 1 (migratory species)
<i>Circaetus gallicus</i>	Short-toed Snake-eagle	<i>Circaetus gallicus</i>	Short-toed Snake-eagle	No amendments
-	-	<i>Circaetus pectoralis</i>	Black-chested Snake-eagle	Addition to Annex 1 (migratory species)
-	-	<i>Circaetus beaudouini</i>	Beaudouin's Snake-eagle	Addition to Annex 1 (migratory species)
-	-	<i>Circaetus cinereus</i>	Brown Snake-eagle	Addition to Annex 1 (migratory species)
<i>Circus aeruginosus</i>	Western Marsh-harrier	<i>Circus aeruginosus</i>	Western Marsh-harrier	No amendments
<i>Circus spilonotus</i>	Eastern Marsh-harrier	<i>Circus spilonotus</i>	Eastern Marsh-harrier	No amendments
<i>Circus maurus</i>	Black Harrier	<i>Circus maurus</i>	Black Harrier	No amendments
<i>Circus cyaneus</i>	Northern Harrier	<i>Circus cyaneus</i>	Hen Harrier	No amendments
<i>Circus macrourus</i>	Pallid Harrier	<i>Circus macrourus</i>	Pallid Harrier	No amendments
<i>Circus melanoleucos</i>	Pied Harrier	<i>Circus melanoleucos</i>	Pied Harrier	No amendments
<i>Circus pygargus</i>	Montagu's Harrier	<i>Circus pygargus</i>	Montagu's Harrier	No amendments
<i>Accipiter badius</i>	Shikra	<i>Accipiter badius</i>	Shikra	No amendments
<i>Accipiter brevipes</i>	Levant Sparrowhawk	<i>Accipiter brevipes</i>	Levant Sparrowhawk	No amendments
<i>Accipiter soloensis</i>	Chinese Goshawk	<i>Accipiter soloensis</i>	Chinese Sparrowhawk	No amendments
<i>Accipiter gularis</i>	Japanese Sparrowhawk	<i>Accipiter gularis</i>	Japanese Sparrowhawk	No amendments
<i>Accipiter virgatus</i>	Besra	<i>Accipiter virgatus</i>	Besra	No amendments
<i>Accipiter ovampensis</i>	Ovambo Sparrowhawk	<i>Accipiter ovampensis</i>	Ovambo Sparrowhawk	No amendments

		<i>Accipiter nisus</i>	Eurasian Sparrowhawk	<i>Accipiter nisus</i>	Eurasian Sparrowhawk	No amendments
		<i>Accipiter gentilis</i>	Northern Goshawk	<i>Accipiter gentilis</i>	Northern Goshawk	No amendments
		<i>Butastur rufipennis</i>	Grasshopper Buzzard	<i>Butastur rufipennis</i>	Grasshopper Buzzard	No amendments
		<i>Butastur indicus</i>	Grey-faced Buzzard	<i>Butastur indicus</i>	Grey-faced Buzzard	No amendments
		<i>Buteo buteo</i>	Common Buzzard	<i>Buteo buteo</i>	Eurasian Buzzard	No amendments
		-	-	<i>Buteo japonicus</i>	Japanese Buzzard	Addition to Annex 1 (taxonomic change)
		<i>Buteo oreophilus</i>	Mountain Buzzard	-	-	Remove from Annex 1 (taxonomic change)
		-	-	<i>Buteo trizonatus</i>	Forest Buzzard	Addition to Annex 1 (taxonomic change)
		<i>Buteo rufinus</i>	Long-legged Buzzard	<i>Buteo rufinus</i>	Long-legged Buzzard	No amendments
		<i>Buteo hemilasius</i>	Upland Buzzard	<i>Buteo hemilasius</i>	Upland Buzzard	No amendments
		<i>Buteo lagopus</i>	Rough-legged Buzzard	<i>Buteo lagopus</i>	Rough-legged Buzzard	No amendments
		<i>Buteo auguralis</i>	Red-necked Buzzard	<i>Buteo auguralis</i>	Red-necked Buzzard	No amendments
		<i>Aquila pomarina</i>	Lesser Spotted Eagle	<i>Clanga pomarina</i>	Lesser Spotted Eagle	No amendments
		<i>Aquila clanga</i>	Greater Spotted Eagle	<i>Clanga clanga</i>	Greater Spotted Eagle	No amendments
		<i>Aquila rapax</i>	Tawny Eagle	<i>Aquila rapax</i>	Tawny Eagle	No amendments
		<i>Aquila nipalensis</i>	Steppe Eagle	<i>Aquila nipalensis</i>	Steppe Eagle	No amendments
		<i>Aquila adalberti</i>	Spanish Imperial Eagle	<i>Aquila adalberti</i>	Spanish Imperial Eagle	No amendments
		<i>Aquila heliaca</i>	Eastern Imperial Eagle	<i>Aquila heliaca</i>	Eastern Imperial Eagle	No amendments
		<i>Aquila chrysaetos</i>	Golden Eagle	<i>Aquila chrysaetos</i>	Golden Eagle	No amendments
		<i>Aquila wahlbergi</i>	Wahlberg's Eagle	<i>Hieraaetus wahlbergi</i>	Wahlberg's Eagle	No amendments
		<i>Hieraaetus pennatus</i>	Booted Eagle	<i>Hieraaetus pennatus</i>	Booted Eagle	No amendments
		-	-	<i>Hieraaetus ayresii</i>	Ayres's Hawk-eagle	Addition to Annex 1 (migratory species)
		<i>Spizaetus nipalensis</i>	Mountain Hawk-eagle	<i>Nisaetus nipalensis</i>	Mountain Hawk-eagle	No amendments
	Falconidae	<i>Falco naumanni</i>	Lesser Kestrel	<i>Falco naumanni</i>	Lesser Kestrel	No amendments
		<i>Falco tinnunculus</i>	Common Kestrel	<i>Falco tinnunculus</i>	Common Kestrel	No amendments
		<i>Falco alopex</i>	Fox Kestrel	<i>Falco alopex</i>	Fox Kestrel	No amendments
		<i>Falco vespertinus</i>	Red-footed Falcon	<i>Falco vespertinus</i>	Red-footed Falcon	No amendments
		<i>Falco amurensis</i>	Amur Falcon	<i>Falco amurensis</i>	Amur Falcon	No amendments
		<i>Falco eleonora</i>	Eleonora's Falcon	<i>Falco eleonora</i>	Eleonora's Falcon	No amendments

		<i>Falco concolor</i>	Sooty Falcon	<i>Falco concolor</i>	Sooty Falcon	No amendments
		<i>Falco columbarius</i>	Merlin	<i>Falco columbarius</i>	Merlin	No amendments
		<i>Falco subbuteo</i>	Eurasian Hobby	<i>Falco subbuteo</i>	Eurasian Hobby	No amendments
		-	-	<i>Falco cuvierii</i>	African Hobby	Addition to Annex 1 (migratory species)
		<i>Falco severus</i>	Oriental Hobby	<i>Falco severus</i>	Oriental Hobby	No amendments
		<i>Falco biarmicus</i>	Lanner Falcon	<i>Falco biarmicus</i>	Lanner Falcon	No amendments
		<i>Falco cherrug</i>	Saker Falcon	<i>Falco cherrug</i>	Saker Falcon	No amendments
		<i>Falco rusticolus</i>	Gyr Falcon	<i>Falco rusticolus</i>	Gyr Falcon	No amendments
		<i>Falco peregrinus</i>	Peregrine Falcon	<i>Falco peregrinus</i>	Peregrine Falcon	No amendments
		<i>Falco pelegrinoides</i>	Barbary Falcon	-	-	Remove from Annex 1 (taxonomic change)
STRIGIFORMES	Strigidae	<i>Otus brucei</i>	Pallid Scops-owl	<i>Otus brucei</i>	Pallid Scops-owl	No amendments
		<i>Otus scops</i>	Common Scops-owl	<i>Otus scops</i>	Eurasian Scops-owl	No amendments
		<i>Otus sunia</i>	Oriental Scops-owl	<i>Otus sunia</i>	Oriental Scops-owl	No amendments
		<i>Nyctea scandiaca</i>	Snowy Owl	<i>Bubo scandiacus</i>	Snowy Owl	No amendments
		<i>Strix uralensis</i>	Ural Owl	<i>Strix uralensis</i>	Ural Owl	No amendments
		<i>Strix nebulosa</i>	Great Grey Owl	<i>Strix nebulosa</i>	Great Grey Owl	No amendments
		<i>Surnia ulula</i>	Northern Hawk Owl	<i>Surnia ulula</i>	Northern Hawk-owl	No amendments
		<i>Aegolius funereus</i>	Boreal Owl	<i>Aegolius funereus</i>	Boreal Owl	No amendments
		<i>Ninox scutulata</i>	Brown Hawk-owl	<i>Ninox scutulata</i>	Brown Boobook	No amendments
		<i>Asio otus</i>	Long-eared Owl	<i>Asio otus</i>	Northern Long-eared Owl	No amendments
		<i>Asio flammeus</i>	Short-eared Owl	<i>Asio flammeus</i>	Short-eared Owl	No amendments
		-	-	<i>Asio capensis</i>	Marsh Owl	Addition to Annex 1 (migratory species)

## Annex B

**TAG proposals for the revised Table 1 of Annex 3 of the Raptors MoU:  
Categorisation of African-Eurasian migratory birds of prey covered by the Action Plan <sup>18</sup>**

## Category 1

Scientific name	Vernacular name	Global Red List status <sup>19</sup>
<i>Milvus milvus</i>	Red Kite	NT
<i>Haliaeetus leucoryphus</i>	Pallas's Fish-eagle	VU
<i>Haliaeetus pelagicus</i>	Steller's Sea-eagle	VU
<i>Gypaetus barbatus</i>	Bearded Vulture	NT
<i>Neophron percnopterus</i>	Egyptian Vulture	EN
<i>Necrosyrtes monachus</i>	Hooded Vulture	CR
<i>Gyps africanus</i>	White-backed Vulture	CR
<i>Gyps bengalensis</i>	White-rumped Vulture	CR
<i>Gyps indicus</i>	Indian Vulture	CR
<i>Gyps tenuirostris</i>	Slender-billed Vulture	CR
<i>Gyps rueppelli</i>	Rüppell's Vulture	CR
<i>Gyps himalayensis</i>	Himalayan Griffon	NT
<i>Gyps coprotheres</i>	Cape Vulture	EN
<i>Sarcogyps calvus</i>	Red-headed Vulture	CR
<i>Trigonoceps occipitalis</i>	White-headed Vulture	CR
<i>Aegypius monachus</i>	Cinereous Vulture	NT
<i>Torgos tracheliotos</i>	Lappet-faced Vulture	EN
<i>Circaetus beaudouini</i>	Beaudouin's Snake-eagle	VU
<i>Circus maurus</i>	Black Harrier	VU
<i>Circus macrourus</i>	Pallid Harrier	NT
<i>Clanga clanga</i>	Greater Spotted Eagle	VU
<i>Aquila nipalensis</i>	Steppe Eagle	EN
<i>Aquila adalberti</i>	Spanish Imperial Eagle	VU
<i>Aquila heliaca</i>	Eastern Imperial Eagle	VU
<i>Falco vespertinus</i>	Red-footed Falcon	NT
<i>Falco concolor</i>	Sooty Falcon	NT
<i>Falco cherrug</i>	Saker Falcon	EN

**Explanatory Note 1:** Species for which 2015 Global Red List status has been under discussion this year are highlighted. The Global Red List status shown for this species reflects the provisional decisions following the period of consultation; the finalised 2015 Global Red List will be released in November 2015.

<sup>18</sup> Based on the revised Annex 1 proposed to Signatories by the Raptors MoU Technical Advisory Group (TAG) in advance of MoS2.

<sup>19</sup> Globally threatened and Near Threatened species according to the Global Red List (2015) defined by IUCN and listed on BirdLife International's World Bird and Biodiversity Database (CR =Critically Endangered, EN = Endangered; VU = Vulnerable; NT = Near Threatened)

**Category 2<sup>20</sup>**

Scientific name	Vernacular name
<i>Milvus migrans</i>	Black Kite
<i>Circus cyaneus</i>	Hen Harrier
<i>Accipiter badius</i>	Shikra
<i>Falco naumanni</i>	Lesser Kestrel
<i>Falco tinnunculus</i>	Common Kestrel
<i>Falco biarmicus</i>	Lanner Falcon
<i>Otus brucei</i>	Pallid Scops-owl
<i>Otus scops</i>	Eurasian Scops-owl
<i>Asio flammeus</i>	Short-eared Owl
<i>Aviceda jerdoni</i>	Jerdon's Baza
<i>Aviceda leuphotes</i>	Black Baza
<i>Pernis apivorus</i>	European Honey-buzzard
<i>Chelictinia riocourii</i>	Scissor-tailed Kite
<i>Circus melanoleucos</i>	Pied Harrier
<i>Circus pygargus</i>	Montagu's Harrier
<i>Accipiter soloensis</i>	Chinese Sparrowhawk
<i>Accipiter virgatus</i>	Besra
<i>Butastur rufipennis</i>	Grasshopper Buzzard
<i>Butastur indicus</i>	Grey-faced Buzzard
<i>Aquila rapax</i>	Tawny Eagle
<i>Nisaetus nipalensis</i>	Mountain Hawk-eagle
<i>Falco subbuteo</i>	Eurasian Hobby
<i>Falco cuvierii</i>	African Hobby
<i>Falco severus</i>	Oriental Hobby
<i>Bubo scandiacus</i>	Snowy Owl
<i>Ninox scutulata</i>	Brown Boobook
<i>Asio otus</i>	Northern Long-eared Owl

<sup>20</sup> Species that are considered to have Unfavourable Conservation Status at a regional level within the area (defined in Annex 2) of the MoU. Effectively this comprises Annex 1 species which are Least Concern on the Global IUCN Red List, but are either:

- Listed as threatened or Near Threatened on the European Red List of Birds (2015); or,
- On the basis of BirdLife International data 2015, would meet criteria to be considered as Species of European Conservation Concern -SPEC1, SPEC2 or SPEC 3 (as in BirdLife International (2004) *Birds in Europe: population estimates, trends and conservation status*. Cambridge, UK: BirdLife International Conservation Series No. 12); or,
- Have a declining global population trend according to the Birdlife International database 2015.

**Category 3**

Scientific name	Vernacular name
<i>Pandion haliaetus</i>	Osprey
<i>Aviceda cuculoides</i>	African Cuckoo-hawk
<i>Pernis ptilorhynchus</i>	Oriental Honey-buzzard
<i>Haliaeetus albicilla</i>	White-tailed Sea-eagle
<i>Gyps fulvus</i>	Griffon Vulture
<i>Circaetus gallicus</i>	Short-toed Snake-eagle
<i>Circaetus pectoralis</i>	Black-chested Snake-eagle
<i>Circaetus cinereus</i>	Brown Snake-eagle
<i>Circus aeruginosus</i>	Western Marsh-harrier
<i>Circus spilonotus</i>	Eastern Marsh-harrier
<i>Accipiter brevipes</i>	Levant Sparrowhawk
<i>Accipiter gularis</i>	Japanese Sparrowhawk
<i>Accipiter ovampensis</i>	Ovambo Sparrowhawk
<i>Accipiter nisus</i>	Eurasian Sparrowhawk
<i>Accipiter gentilis</i>	Northern Goshawk
<i>Buteo buteo</i>	Eurasian Buzzard
<i>Buteo japonicus</i>	Japanese Buzzard
<i>Buteo trizonatus</i>	Forest Buzzard
<i>Buteo rufinus</i>	Long-legged Buzzard
<i>Buteo hemilasius</i>	Upland Buzzard
<i>Buteo lagopus</i>	Rough-legged Buzzard
<i>Buteo auguralis</i>	Red-necked Buzzard
<i>Clanga pomarina</i>	Lesser Spotted Eagle
<i>Aquila chrysaetos</i>	Golden Eagle
<i>Hieraaetus wahlbergi</i>	Wahlberg's Eagle
<i>Hieraaetus pennatus</i>	Booted Eagle
<i>Hieraaetus ayresii</i>	Ayres's Hawk-eagle
<i>Falco alopex</i>	Fox Kestrel
<i>Falco amurensis</i>	Amur Falcon
<i>Falco eleonora</i>	Eleonora's Falcon
<i>Falco columbarius</i>	Merlin
<i>Falco rusticolus</i>	Gyrfalcon
<i>Falco peregrinus</i>	Peregrine Falcon
<i>Otus sunia</i>	Oriental Scops-owl
<i>Strix uralensis</i>	Ural Owl
<i>Strix nebulosa</i>	Great Grey Owl
<i>Surnia ulula</i>	Northern Hawk-owl
<i>Aegolius funereus</i>	Boreal Owl
<i>Asio capensis</i>	Marsh Owl