

Draft resolution on the application of Criteria 6 and 9 to new and existing Wetlands of International Importance

Submitted by the Scientific and Technical Review Panel

Action requested:

The Standing Committee is invited to review and approve the attached draft resolution for consideration by the 15th meeting of the Conference of the Parties.

Introduction

Following amendments to the Strategic Framework in relation to the use of alternative data sources for the application of Criterion 6, introduced through Resolution XIV.18, this draft resolution addresses remaining issues, e.g., relating to when alternative population estimates could be used by Contracting Parties, that were not fully considered during COP14, as well as associated aspects of Criterion 5 (e.g., relevant cross-references to Criterion 6). The resolution also introduces amendments to the Strategic Framework in relation to the application of Criterion 9, which pertains to non-avian wetland-dependent animal species, to facilitate designation using this criterion. The proposed amendments to the Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance of the Convention on Wetlands are provided in Annexes 1 and 2 of the draft resolution.

Financial implications of implementation

Paragraph (number and key part of text)	Action	Core budget cost (CHF)	Non-core budget cost (CHF)
8	Translating amendments in the Strategic Framework	XXX	0
9	Translating amendments in the Strategic Framework	XXX	0

Draft Resolution XV.xx on the application of Criteria 6 and 9 to new and existing Wetlands of International Importance

1. RECALLING the importance of maintaining the ecological character of Wetlands of International Importance, as set out in the Convention on Wetlands “Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance of the Convention on Wetlands”, and emphasising the role of Criteria 6 and 9 in identifying and protecting internationally important wetlands that support >1% of the population of waterbird and non-avian species;
2. FURTHER RECALLING:
 - i. Resolution 5.9, on the application of the Criteria for identifying Wetlands of International Importance;
 - ii. Resolution VIII.38, which describes the application of waterbird population estimates for the identification and designation of Wetlands of International Importance;
 - iii. Resolution IX.1, Annex B, providing the revised “Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance”; and
 - iv. Resolution XIV.18, addressing the use of alternative estimates for Waterbird Population Estimates in supporting Wetlands of International Importance site designations under Criterion 6;
3. ACKNOWLEDGING the global and regional decline of many waterbird populations and wetland-dependent non-avian species that underscores the urgent need for improved data collection, monitoring, and management of wetlands;
4. NOTING the critical importance of waterbirds and wetland-dependent non-avian species for maintaining the biodiversity and ecological character of wetlands, and that the designation of Wetlands of International Importance using Criteria 6 and 9 is an important contribution to protecting these species;
5. RECOGNIZING the importance of enhancing international cooperation to support population estimates and the application of Criteria 6 and 9, as well as the contribution this makes towards the implementation of the Kunming-Montreal Global Biodiversity Framework, the Convention on Migratory Species and the 2030 Agenda for Sustainable Development;
6. FURTHER RECOGNIZING that the current “Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance”, as revised through Resolution XIV.18, provides relevant guidance on the application of Criteria 6 and 9; and
7. REAFFIRMING that timely updates to the guidance and application of Criteria 6 and 9 are critical to ensuring that the Convention continues to serve as a global standard-bearer for wetland conservation;

THE CONFERENCE OF THE CONTRACTING PARTIES

8. INSTRUCTS the Secretariat to amend the Strategic Framework (Resolution XI.8 Annex 2, Rev. COP14), specifically regarding guidance at paragraphs 90, 197, 207(a), and 210, on the use of waterbird population estimates to support the application of Criterion 6, as outlined in Annex 1 of this Resolution;

9. INSTRUCTS the Secretariat to amend the Strategic Framework (Resolution XI.8 Annex 2, Rev. COP14), specifically regarding guidance in paragraphs 248-259 to support the application of Criterion 9 for wetland dependent non-avian species, as outlined in Annex 2 of this Resolution;
10. INSTRUCTS the Secretariat to inform relevant multilateral environmental agreements (MEAs), scientific bodies, and the International Organization Partners of the Convention regarding revisions to the Strategic Framework in relation to Criteria 6 and 9;
11. REQUESTS the Scientific and Technical Review Panel (STRP), in consultation with relevant stakeholders, to propose measures for strengthening scientific and technical cooperation in assessing wetland-dependent non-avian species under Criterion 9;
12. URGES Contracting Parties to make full use of the Waterbird Population Portal (WPP), launched in 2022, for accessing the most up-to-date waterbird population estimates for application of Criterion 6, and to contribute their national data to the portal to improve the comprehensiveness and accuracy of future waterbird population estimates;
13. FURTHER INSTRUCTS the Secretariat, based on information provided by the STRP, to initiate triennial updating of the Convention's listing of *Population estimates and 1% thresholds for wetland-dependent non-avian animal species, for the application of Criterion 9*;
14. ENCOURAGES Contracting Parties to enhance data-sharing initiatives through partnerships with scientific research institutions and relevant international organizations to improve the monitoring of waterbird populations and wetland-dependent non-avian species, particularly in regions where data gaps exist;
15. REQUESTS the Secretariat, in cooperation with the STRP and relevant stakeholders, to develop capacity-building initiatives aimed at improving Contracting Parties' ability to apply Criteria 6 and 9;
16. ENCOURAGES the STRP to explore the use of relevant technologies for assessing the status and trends of waterbird populations and wetland dependent non-avian species; and
17. URGES Contracting Parties to mobilize financial resources for the conservation and management of wetlands, particularly for Wetlands of International Importance designated under Criteria 6 or 9.

Annex 1

Criterion 6

1. Amendments to the Strategic Framework are provided in track changes, focusing on clarifying the use of waterbird population estimates, updating taxonomic standards, and ensuring consistency across Criteria 5 and 6, including related sections (e.g., glossary).

Background

2. The Convention on Wetlands Resolution XIV.18 "*Waterbird population estimates to support new and existing Ramsar Site designations under Ramsar Criterion 6 – use of alternative estimates*", paragraph 17, "further requests the Scientific and Technical Review Panel (STRP) to also develop guidance that provides technical support to Contracting Parties in closing identified gaps in waterbird population data, and outlines opportunities for capacity building, technical and scientific cooperation and exchange to support Contracting Parties, in particular developing country Contracting Parties, in their assessment of waterbird populations".
3. As a priority action under the STRP 2023-2025 workplan (Task 1.1b), the guidance on the application of Convention on Wetlands Criterion 6 has been reviewed. This review has been undertaken by the STRP in conjunction with the technical and scientific subsidiary bodies of relevant treaties, such as the African-Eurasian Migratory Waterbird Agreement (AEWA) and the Convention on Migratory Species (CMS), as well as the East Asian-Australasian Flyway Partnership (EAAFP) and other flyway initiatives.
4. This work focused on a review of the guidance for application of Criterion 6 in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance of the Convention on Wetlands* (Ramsar, Iran, 1971) Resolution XI.8, Annex 2, Rev.COP14 (2022). In addition to Criterion 6, the review identified associated amendments and cross references in relation to Criterion 5. For ease of understanding, the full guidance sections for Criteria 5 and 6 are included. In addition, updates made to section 5.7.4 "Species taxonomy" and two terms in the Glossary (Appendix G) are presented.
5. Wetlands International's Waterbird Populations Portal (WPP) has been launched in 2022 and provides open online access the latest and historic editions of the Waterbird Population Estimates (WPE) for use by Parties and other stakeholders. References to the WPE and WPP are updated for consistency.

5.7.4 Species taxonomy

90. For waterbirds, please use [Wetlands International's Waterbird Population Estimates Populations Portal](#) as the definitive source of information on populations and species taxonomy (see also sections 6.1.5 and 6.1.6 below). ([The WPE follows the Handbook of the Birds of the World/BirdLife International taxonomy; BirdLife International being the Red List Authority for birds.](#) Note that there ~~are only a few~~ can be differences between the nomenclatures adopted by Waterbird ~~Population Estimates Populations Portal~~ and CITES). ~~The most recent reference source.~~ CITES is [Waterbird Population Estimates](#), ~~5~~ thin the process of reviewing nomenclature and until then follows the 2003 edition, available in the Waterbird Populations Portal.[‡] of "[The Howard and Moore Complete Checklist of the Birds of the World](#)").

[‡]Updated by Resolution XIV.18 on *Waterbird population estimates to support new and existing Ramsar Site designations under Ramsar Criterion 6 – use of alternative estimates* (2022)

Specific criteria based on waterbirds

6.1.5 Criterion 5

A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.

What this Criterion is seeking to achieve

176. This Criterion identifies those wetlands which are of numerical importance for waterbirds through their support of internationally important numbers, either of one or more species, and often the total numbers of the waterbird species assemblage.

177. When Contracting Parties are reviewing candidate sites for listing under this Criterion, greatest conservation value will be achieved through the selection of a network of sites that provide habitat for waterbird assemblages containing globally threatened species ~~or subspecies~~. These are currently poorly represented in the Ramsar List. (Refer also to paragraph 86 above, “Species presence in perspective”.)

How to interpret this Criterion – what it means

178. The Criterion is unambiguous and has been widely applied throughout the world. The Criterion can be applied only when regular waterbird count information is available for the site being designated. Also see [paragraph 186](#) below (and Appendix G) for the definition of ‘regularly’ as in ‘regularly supports 20,000 or more waterbirds’ in applying this Criterion.

What data and information are needed to apply this Criterion?

179. This Criterion can be simply applied using data from regular counts of waterbirds at a site. Typically data from national level waterbird monitoring schemes and the International Waterbird Census collated by Wetlands International are the key reference sources, although other site-specific survey data may also be used where it exists. Contact Wetlands International for details of availability of relevant data (see below).

Potential ambiguities and pitfalls

180. In completing the RIS, indicate the actual total number of waterbirds present, and preferably, when available, the average total number from several recent years- ([see paragraph 186 below](#)). It is not sufficient simply to restate the Criterion, i.e., that the site supports >20,000 waterbirds.

181. **Non-native waterbirds** should not be included within the totals for a particular site (refer also to section 5.7.3 above, “Non-native species”).

182. Where a site being designated is only part of a wetland or wetland complex, it is important that the waterbird counts used must be from within only that part of the site being designated, and not from a broader wetland area.

183. Criterion 5 should be applied not only to multi-species assemblages, but also to sites regularly holding more than 20,000 waterbirds of any one species. [Criterion 4 and 6 may also be](#)

~~applicable. For populations of waterbirds of more than 2,000,000 individuals, a 1% threshold of 20,000 is adopted on the basis that sites holding this number are of importance under Criterion 5. To reflect the importance of the site for the species concerned, it is also appropriate to list such a site under Criterion 6~~

184. See ~~section~~ 5.7.4 above for guidance on species nomenclature and taxonomy.

More detail

185. **Definition of ‘waterfowl’:** The Convention functionally defines waterfowl (a term which, for the purposes of these Criteria and Guidelines, is considered to be synonymous with “waterbirds”) as “birds ecologically dependent on wetlands” (Article 1.2). This definition thus includes any wetland bird species. However, at the broad level of taxonomic order, it includes especially:

- penguins: *Sphenisciformes*.
- divers: *Gaviiformes*;
- grebes: *Podicipediformes*;
- wetland related pelicans, cormorants, darters and allies: *Pelecaniformes*;
- herons, bitterns, storks, ibises and spoonbills: *Ciconiiformes*;
- flamingos: *Phoenicopteriformes*;
- screamers, swans, geese and ducks (wildfowl): *Anseriformes*;
- wetland related raptors: *Accipitriformes* ~~and~~, *Falconiformes* and *Strigiformes*;
- wetland related cranes, rails and allies: *Gruiformes*;
- Hoatzin: *Opisthocomiformes*;
- wetland related jacanas, waders (or shorebirds), gulls, skimmers and terns: *Charadriiformes*;
- coucals: *Cuculiformes*; ~~and~~
 - ~~wetland related owls: *Strigiformes*.~~

186. **Definition of ‘regularly’ (as used in Criteria 5 & 6):** As in ‘supports regularly’. A wetland regularly supports a population of a given size if:

- i) the mean of the annual maxima taken over at least five years, at least amounts to the required level; or
- ii) at least the requisite number of birds is known to have occurred in at least two thirds of the seasons/years for which adequate data are available, the total number of seasons/years with adequate data being not less than three; ~~or~~.
- ii) ~~the mean of the maxima of those seasons in which the site is internationally important, taken over at least five years, amounts to the required level (means based on three or four years may be quoted in provisional assessments only).~~

186bis. If possible, counts should be of less than 10 years old such that the site is justified on the basis of contemporary data and information about the species concerned.

187. In establishing long-term ‘use’ of a site by birds, natural variability in population levels should be considered especially in relation to the ecological needs of the populations present. Thus, in some situations (e.g., sites of importance as drought or cold weather refuges or temporary wetlands in semi-arid or arid areas – which may be quite variable in extent between years), the simple arithmetical average number of birds using a site over several years may not adequately reflect the true ecological importance of the site. In these instances, a site may be of crucial

importance at certain times ('ecological bottlenecks'), but hold lesser numbers at other times. In such situations, there is a need for interpretation of data from an appropriate time period in order to ensure that the importance of sites is accurately assessed.

188. In some instances, however, for species occurring in very remote areas or which are particularly rare, or where there are particular constraints on national capacity to undertake surveys, areas may be considered suitable on the basis of fewer [\(and or older\)](#) counts. For some countries or sites where there is very little information, single counts can help establish the relative importance of the site for a species.

189. **Turnover** of individuals, especially during migration periods, leads to more waterbirds using particular wetlands than are counted at any one point in time, such that the importance of such a wetland for supporting waterbird populations will often be greater than is apparent from simple census information. See Appendix G for the definition of the term 'turnover'. The following considerations in relation to 'turnover' in the application of Criterion 5 apply:

- i) Accurate estimation of turnover and total number of individuals of a population or populations using a **wetland** is difficult, and several methods (e.g., cohort marking and resighting, or summing increases in a count time-series) which have sometimes been applied do not yield statistically reliable or accurate estimates.
- ii) [The onlyOne](#) currently available method that is considered to provide reliable estimates of turnover is that of unique capture/marketing and resighting/recapture of individually-marked birds in a population at a migratory staging site. But it is important to recognize that for this method to generate a reliable estimate of migration volume, its application usually requires significant capacity and resources, and for large and/or inaccessible staging areas (especially where birds in a population are widely dispersed) use of this method can present insuperable practical difficulties. [Other methods using tracking data may also be useful.](#)
- iii) When turnover is known to occur in a wetland but it is not possible to acquire accurate information on migration volume, Parties should continue to consider recognizing the importance of the wetland as a migratory staging area through the application of Criterion 4 as the basis for ensuring that their management planning for the site fully recognizes this importance.

190. **Size of sites.** This Criterion will apply to wetlands of varying size in different Contracting Parties. While it is impossible to give precise guidance on the size of an area in which these numbers may occur, wetlands identified as being of international importance under Criterion 5 should form an ecological unit, and may thus be made up of one big area or a group of smaller wetlands. Refer also to [section 5.6 above "Site delineation and boundary definition"](#) and section 5.8 above, "Wetlands in the landscape: connectivity and site clusters".

Where to go for further help or information

191. International Waterbird Census: Wetlands International, <http://tinyurl.com/323yycf>.
<https://iwc.wetlands.org/>.

6.1.6 Criterion 6

A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.

What this Criterion is seeking to achieve

192. This Criterion identifies wetlands of numerical importance for waterbirds [{see paragraph 185 for definition}](#) through their support of a significant proportion of specific biogeographic populations [{see paragraph 205 for definition}](#) (more than 1%), noting that in most cases the biogeographic range of waterbird populations is larger than the territory of one Contracting Party.

193. When Contracting Parties are reviewing candidate sites for listing under this Criterion, greatest conservation value will be achieved through the selection of a suite of sites that hold populations of globally threatened species or subspecies. Refer also to paragraph 86 above, “Species presence in perspective”, and [section 5.5](#), “Legal status and complementary conservation frameworks”. Consideration may also be given to turnover of waterbirds at migration periods, so that a cumulative total is reached, if such data are available (see paragraph 189 above).

[193bis To address conservation of migratory species, consideration should especially be given to listing of sites known to be connected through movements of species’ populations to ensure high connectivity along a flyway \(see UNEP/CMS/Resolution 12.7: Improving ways of addressing connectivity in the conservation of migratory species\).](#)

How to interpret this Criterion – what it means

194. The Criterion is unambiguous and has been widely applied throughout the world. The term ‘population’ in this Criterion refers to the relevant biogeographic population, as defined below. For each population listed under Criterion 6, the name of the biogeographic population, as well as the number of birds of this population regularly occurring in the site, should be listed [in the RIS](#).

What data and information are needed to apply this Criterion?

195. This Criterion can be simply applied with just two elements of information, but both these elements are essential for its application:

- i) a count of the total number of the waterbirds of a particular population of a species or subspecies using the wetland; and
- ii) 1% threshold from the current estimate of the size of the relevant biogeographic population of the waterbird concerned.

196. Site-related population data are available for many wetlands from the International Waterbird Census (IWC) of Wetlands International, from national waterbird monitoring schemes contributing to the IWC, or indeed from specific surveys undertaken at the site concerned. Contact Wetlands International for details of availability of relevant data held by the IWC (see below).

197. Current estimates of the sizes of nearly all waterbird species' populations and 1% thresholds for those populations for which there is a reliable population size estimate are ~~also~~ available in ~~Wetland~~Wetlands International's ~~periodic publication~~ [Waterbird Population Estimates, available in the Waterbird Populations Portal](#)². If this Criterion is being applied to a waterbird species or population which is either not covered in ~~the~~ [Waterbird Population Estimates, Populations Portal](#) or for which that publication does not provide a 1% threshold or the threshold provided is considered to be out of date, an alternative source of the population size estimate may be used and details of the source must be provided, both to the Secretariat and to Wetlands International (to maintain a log of such instances). In doing so, details of the methodology for the estimate, which should be well-founded, are to be provided³.

197bis. See paragraph 186 above for definition of regularly, paragraph 187 on data interpretation and analysis, and paragraph 188 on frequency of data collection, all of which issues are relevant to Criterion 6.

Potential ambiguities and pitfalls

198. In completing the RIS, indicate the ~~actual~~ total number of waterbirds present, and preferably, when available, the average total number from several recent years, and the percentage this represents of the population size of the relevant biogeographic population. It is not sufficient simply to restate the Criterion, i.e., that the site supports >1% of a biogeographic population. [See paragraph 186bis for ideal recency of data.](#)

199. **Non-native waterbirds** are not applicable under this Criterion (refer also to section 5.7.3 above, "Non-native species").

200. Where a site being designated is only part of a wetland or wetland complex, it is important that the waterbird counts used must be from within only that part of the site being designated, and not from a broader wetland area.

201. **Mixed populations.** At some sites, more than one biogeographical population of the same species can occur, especially during migration periods and/or where flyway systems of different populations intersect at major wetlands. Where such populations are indistinguishable in the field, as is usually the case, this can present practical problems as to which 1% threshold to apply. Where such mixed populations occur (and these are inseparable in the field), it is suggested that the larger 1% threshold be used in the evaluation of sites.

202.- However, particularly where one of the populations concerned is of high conservation status, this guidance should be applied flexibly and Parties should consider recognizing the overall importance of the wetland for both populations through the application of Criterion 4, as the basis for ensuring that their management planning for the site fully recognizes this importance. This guidance should not be applied to the detriment of smaller, high conservation status populations.

² [The Waterbird Populations Portal does not provide information on wetland-related members of the following families Sphenisciformes, Accipitriformes, Falconiformes, Opisthocomiformes, Cuculiformes and Strigiformes.](#)

³ [Performa for submitting such estimates can be obtained from the Secretariat. Updated by Resolution XIV.18 on Waterbird population estimates to support new and existing Ramsar Site designations under Ramsar Criterion 6—use of alternative estimates \(2022\).](#)

203.- Note that this guidance applies just during the period of population mixing (which is often, but not exclusively, during periods of migration). At other times, it is generally possible to assign a 1% threshold accurately to the single population that is present.

204. See [section 5.7.4 above](#) for guidance on species nomenclature and taxonomy.

More detail

205. **Biogeographical population.** Several types of ‘populations’ are recognized:

- i) the entire population of a monotypic species;
- ii) the entire population of a recognized subspecies;
- iii) a discrete migratory population of a species or subspecies, i.e., a population which rarely if ever mixes with other populations of the same species or subspecies;
- iv) that ‘population’ of birds from one hemisphere which spends the non-breeding season in a relatively discrete portion of another hemisphere or region. In many cases, these ‘populations’ may mix extensively with other populations on the breeding grounds or mix with sedentary populations of the same species during the migration seasons and/or on the non-breeding grounds;
- v) a regional group of sedentary, nomadic or dispersive birds with an apparently rather continuous distribution and no major gaps between breeding units sufficient to prohibit interchange of individuals during their normal nomadic wanderings and/or post-breeding dispersal.

[205bis. The Waterbird Populations Portal home page has a Quick Access Button to the Ramsar Convention linked to maps of the currently known distributions of waterbird populations and a description of the range of each population.](#)

206. **Waterbird population size.** To ensure international comparability, Contracting Parties should use the international population estimates and 1% thresholds published and updated approximately every three years by Wetlands International as the basis for evaluating sites for the List using this Criterion. Most [applicable \(most recent\) 1% thresholds](#) are given in [Waterbird Population Estimates, 4th Edition \(2006\), which also provides a description](#) [the top](#) of the [biogeographic range of each list for a population in the Waterbird Populations Portal \(see 205bis for weblink\)](#). Earlier editions of Waterbird Population Estimates are [also presented for reference but are](#) now superseded and should not be used for Criterion 6 application.

207. Note that this Criterion should be applied only to those waterbird populations for which a 1% threshold is available. However, for populations of waterbird species in taxa not presently covered by [the Waterbird Population Estimates Populations Portal](#), this Criterion may be applied if a reliable population estimate and 1% threshold is available from another source and if that information source is clearly specified. It is not sufficient simply to restate the Criterion, that the site supports >1% of a population, nor is it a correct justification to list populations with numbers in the site >1% of their national population, except when the population is endemic to that country.

[207\(a\)-207bis.](#) An alternative source may also be used where population estimates published in the ~~current~~ [Waterbird Population Estimates Populations Portal](#) are considered to be out of date.⁴

⁴Added in accordance with Resolution XIV.18 on [Waterbird population estimates to support new and existing Ramsar Site designations under Ramsar Criterion 6 – use of alternative estimates \(2022\)](#).

208. As urged by Resolutions VI.4 (1996) and VIII.38 (2002) for the better application of this Criterion, Contracting Parties should not only supply data for the future update and revision of international waterbird population estimates, but should also support the national implementation and development of Wetlands International's International Waterbird Census, which is the source of many of these data.

209. **Turnover** of individuals, especially during migration periods, leads to more waterbirds using particular wetlands than are counted at any one point in time, such that the importance of such a wetland for supporting waterbird populations will often be greater than is apparent from simple census information. For further guidance on estimation of turnover, see the guidance above under Criterion 5, paragraph 189.

Where to go for further help or information?

210. International Waterbird Census: Wetlands International, <https://www.wetlands.org/IWC><https://iwc.wetlands.org/> and the publication Waterbird Population Estimates available through the Waterbird Populations Portal <https://wpp.wetlands.org/>⁵<https://wpp.wetlands.org/>.

211. Further detailed information on the distribution and range of biogeographic populations of some groups of waterbirds are available as follows:

Waterbird taxa	Geographical area	Source of information
Anatidae	Africa and western Eurasia	Scott & Rose (1996) Scott, D.A. & Rose, P.M. (1996). Atlas of Anatidae Populations in Africa and Western Eurasia. Wetlands International Publication No.41, Wageningen, The Netherlands. 336 pp. (Available at: https://www.wetlands.org/publication/atlas-of-anatidae-populations-in-africa-and-western-eurasia/)
Anatidae	Eastern Eurasia	Miyabayashi & Mundkur (1999) Miyabayashi, Y. & Mundkur, T. (1999). Atlas of Key Sites for Anatidae in the East Asian Flyway. Wetlands International - Japan, Tokyo, and Wetlands International - Asia Pacific, Kuala Lumpur. 148 pp. (Available at: www.jawgp.org/anet/aaa1999/aaaendx.htm)
Waders (shorebirds)	Africa and western Eurasia	Delany et al. (2009) Delany, S., Scott, D.A., Dodman, T. & Stroud, D.A. (eds.) (2009). An atlas of wader populations in Africa and western Eurasia. Wetlands International, Wageningen, The Netherlands. 524 pp. (Available at: https://www.wetlands.org/publication/wader-atlas/)
Cranes	Global	Mirande C.M. & Harris, J.T. (eds.) (2019). Crane Conservation Strategy. Baraboo,

⁵ Updated by Resolution XIV.18 on *Waterbird population estimates to support new and existing Ramsar Site designations under Ramsar Criterion 6 – use of alternative estimates* (2022).

		Wisconsin, USA: International Crane Foundation. 454 pp. (Available at: https://savingcranes.org/2019/10/crane-conservation-strategy-just-printed/)
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Appendix G Glossary of terms used in the Strategic Framework

biogeographical population - several types of 'populations' are recognized:

- i) the entire population of a monotypic species;
- ii) the entire population of a recognized subspecies;
- iii) a discrete migratory population of a species or subspecies, i.e., a population which rarely if ever mixes with other populations of the same species or subspecies;
- iv) that 'population' of birds from one hemisphere which spend the non-breeding season in a relatively discrete portion of another hemisphere or region. In many cases, these 'populations' may mix extensively with other populations on the breeding grounds, or mix with sedentary populations of the same species during the migration seasons and/or on the non-breeding grounds;
- v) a regional group of sedentary, nomadic or dispersive birds with an apparently rather continuous distribution and no major gaps between breeding units sufficient to prohibit interchange of individuals during their normal nomadic wanderings and/or post-breeding dispersal.

Guidance on waterbird biogeographical populations (and, where data is available, suggested 1% thresholds for each population) is provided by Wetlands International, most recently in the [Waterbird Population Estimates, Waterbird Populations Portal](#), with more detail for Anatidae populations in Africa and western Eurasia given in Scott & Rose (1996).

regularly (Criteria 5 & 6) - as in supports regularly - a wetland regularly supports a population of a given size if:

- i) [the mean of the annual maxima taken over at least five years, at least amounts to the required level; or](#)
- ii) [at least](#) the requisite number of birds is known to have occurred in [at least](#) two thirds of the [seasons-years](#) for which adequate data are available, the total number of [seasons-years with adequate data](#) being not less than three; ~~or,~~
- ii) ~~the mean of the maxima of those seasons in which the site is internationally important, taken over at least five years, amounts to the required level (means based on three or four years may be quoted in provisional assessments only).~~

~~In establishing long-term 'use' of a site by birds, natural variability in population levels should be considered especially in relation to the ecological needs of the populations present. Thus in some situations (e.g., sites of importance as drought or cold weather refuges or temporary wetlands in semi-arid or arid areas — which may be quite variable in extent between years), the simple arithmetical average number of birds using a site over several years may not adequately reflect the true ecological importance of the site. In these instances, a site may be of crucial importance at certain times ('ecological bottlenecks'), but hold lesser numbers at other times. In such situations,~~

there is a need for interpretation of data from an appropriate time period in order to ensure that the importance of sites is accurately assessed.

In some instances, however, for species occurring in very remote areas or which are particularly rare, or where there are particular constraints on national capacity to undertake surveys, areas may be considered suitable on the basis of fewer counts. For some countries or sites where there is very little information, single counts can help establish the relative importance of the site for a species.

————— The International Waterbird Census data collated by Wetlands International is the key reference source.

Annex 2

Criterion 9

1. Amendments to the Strategic Framework regarding the application of Criterion 9 focus on improving the clarity of definitions, expanding guidance for the assessment of wetland-dependent non-avian species, and ensuring the availability of reliable population estimates. The changes provide updated technical guidance to support the application of this criterion for the designation of Wetlands of International Importance.

6.1.9 Criterion 9

A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of wetland-dependent non-avian animal species.

What this Criterion is seeking to achieve

~~250~~248. This Criterion identifies wetlands ~~of which are considered internationally important due to the~~ numerical importance ~~for non-avian of~~ wetland dependent ~~animals non-avian animal species on/in the site~~, through their support of a significant proportion (1% or more) of specific biogeographic populations (~~more than 1%~~),² noting that in most cases the biogeographic range of such populations is larger than the territory of one Contracting Party.

How to interpret this Criterion – what it means

~~251~~248bis. Both Criteria 6 and 9 use the term ‘population’ in their formulation. Criterion 6 for waterbirds defines population as a ‘biogeographical population’ (see paragraph 205 above). In the context of Criterion 9 several types of ‘population’ are recognised, *inter alia*:

- i) the entire population of a monotypic species;
- ii) the entire population of a recognized subspecies;
- iii) a discrete migratory population of a species or subspecies, i.e., a population which rarely if ever mixes with other populations of the same species or subspecies;
- iv) a well-defined ‘(regional) management unit’ that is international in geographical scale; and/or
- v) a regional group of sedentary, nomadic or dispersive animals with an apparently continuous distribution and no major gaps between breeding units sufficient to prohibit interchange of individuals during their normal nomadic wanderings and/or dispersal.

~~249~~. When Contracting Parties are reviewing candidate sites for listing under this Criterion, greatest conservation value will be achieved through the selection of a suite of sites that hold populations of globally threatened species or subspecies.

~~252~~250. Refer also to paragraph 86 above, “Species presence in perspective”, and section 5.5 above, “Legal status and complementary conservation frameworks”. ~~Consideration~~As relevant, for migratory animals, consideration may also be given to turnover ~~of waterbirds~~ at migration periods, so that a cumulative total is reached, if such data are available (comments on turnover in paragraph ~~189~~187 related to waterbirds are also applicable in relation to wetland-dependent non-avian ~~animals~~ animal species).

~~253~~251. To ensure international comparability, wherever possible Contracting Parties should use the most current international population estimates and 1% thresholds provided ~~and regularly updated~~, by ~~IUCN's~~ IUCN SSC's relevant ~~Species~~ Specialist Groups ~~though~~ ~~and available on~~ the ~~IUCN Species Information Service (SIS) and being published in the Ramsar Technical Report series~~ IUCN's Red List web-pages, as the basis for evaluating sites for the List using this Criterion. ~~(Note: An initial~~ A listing is provided in the ~~paperspreadsheet Population estimates and 1% thresholds for wetland-dependent non-avian animal species, for the application of Criterion 9~~ ~~);~~ 2024 edition (available ~~here~~⁶ and updated every triennium). It is important to note that this is not a comprehensive listing of populations to which the Criterion could be applied.

~~254~~252. This Criterion can also be applied to nationally endemic species or populations, where reliable national population size estimates exist. When making such an application of the Criterion, information concerning the published source of the population size estimate should be included in the justification for the application of this Criterion ~~in the Ramsar Information Sheet for the Site~~. Such information can also contribute to expanding the ~~taxonomic coverage of the~~ information on population estimates and 1% thresholds ~~published in the Ramsar Technical Report series~~.

What data and information are needed to apply this Criterion?

~~255~~253. This Criterion is applicable to populations and species in a range of non-avian taxa including, *inter alia*, mammals, reptiles, amphibians, fish and aquatic macro-invertebrates. However, only species or subspecies for which reliable population estimates have been provided and published should be included in the justification for the application of this Criterion. Where no such information exists, Contracting Parties should give consideration to designation for important non-avian animal species under ~~Criterion 4~~ Criteria 3, 4 and/or 7 as relevant.

~~256~~253bis. The essential type of information required to apply this Criterion is the same as for Criterion 6, recognising that the frequency of monitoring data is typically less for wetland-dependent non-avian animal species. In essence, this is an estimate of the size of the population at the wetland and the size of the international population (see paragraph 195).

254. For better application of this Criterion, Contracting Parties should assist, wherever possible, in the supply of such data to the IUCN-Species Survival Commission and its ~~relevant Species~~ Specialist ~~Groups~~ Group(s) in support of the future updating and revision of international population estimates. Encouragement of relevant population monitoring (across the range of each population), and the reporting of such information assists in expanding the information base to collective advantage.

Potential ambiguities and pitfalls

~~257~~254bis. **Terminology.** The Criterion uses the term "population" in a sense that is broadly the same as the use of the term "biogeographical population" as used for waterbirds in the context of Criterion 6 [see glossary, Section XX]. Reflecting that animal populations can occur at multiple scales, populations in the context of Criterion 9 are anticipated to be widescale, typically

⁶ [link to Population estimates and 1% thresholds for wetland-dependent non-avian animal species, for the application of Criterion 9: 2024 edition]

(although not necessarily always) international in extent. It is noted that common usage of the concept varies between taxa with terms such as ‘sub-population’ (e.g. for Polar Bears) and ‘regional management unit’ (e.g. for marine turtles) being equivalent. In some cases, ‘population’ will be referring to the total global population size.

255. Note that this Criterion should be applied only to those animal populations for which a 1% threshold is available. However, for populations of species in taxa not presently covered by the [paperspreadsheet Population estimates and 1% thresholds for wetland-dependent non-avian animal species, for the application of Criterion 9; 2024 edition \(available \[here\]\(#\)⁷\)](#), the guidelines indicate that this Criterion may be applied if a reliable population estimate and 1% threshold is available from another source, and in such cases ~~the~~this information source should be clearly specifieddocumented in the RIS. In the application of this Criterion, it is not sufficient simply to restate the Criterion, that the site supports >1% or more of a population, nor is it a correct justification to list populations with numbers in the site >1% of their *national* population, except when the population is endemic to that country.

258256. See section 5.7.4 for guidance on species nomenclature and taxonomy.

259257. The guidance for the application of Criterion 9 for non-avian animal species is similar to that provided above for Criterion 6 for waterbirds. In particular, this Criterion must be applied to the regular occurrence of >1% or more of a biogeographic population [see para 254bis] of a species or subspecies of wetland-dependent non-avian animal; species, (see paragraph 248bis) and it should be recognized that in many cases the biogeographic~~geographic~~ range of the population is larger than the territory of one Contracting Party.

260258. For each population listed under Criterion 9 the name of the biogeographic population, as well as the number of individuals of this population regularly occurring in the site, should be listed. ~~An initial in the RIS. A~~ list of recommended 1% thresholds for the application of Criterion 9 is provided in the [paperspreadsheet Population estimates and 1% thresholds for wetland-dependent non-avian animal species, for the application of Criterion 9 \(www.ramsar.org/pdf/ris/key_ris_criterion9_2006.pdf\)](#); 2024 edition (available [here](#)⁸), which also provides a brief description of the biogeographic~~geographic~~ range of each population, the source(s) where further information is available and other useful information.

258bis. The formulation of the Criterion relates to proportional abundance, although for many species quantitative population estimates do not exist, nor ever will. Other assessment systems, as for example for Key Biodiversity Areas (<https://portals.iucn.org/library/node/46259>), use other assessment criteria such as proportional range and other distributional metrics. The use of such assessment systems can be useful to inform consideration of the international importance of wetlands (in the context especially of Criterion 3) but do not fall within the scope of Criterion 9 as currently formulated.

⁷ [\[link to Population estimates and 1% thresholds for wetland-dependent non-avian animal species, for the application of Criterion 9: 2024 edition\]](#)

⁸ [\[link to Population estimates and 1% thresholds for wetland-dependent non-avian animal species, for the application of Criterion 9: 2024 edition\]](#)

Where to go for further help or information?

261-259. The principal source of information – at species level – is IUCN’s Red List website: <https://www.iucnredlist.org/>. There are several published population assessments for higher level taxa and these papers and reviews are listed in the spreadsheet *Population estimates and 1% thresholds for wetland-dependent non-avian animal species, for the application of Criterion 9 – 2024*. Langhammer *et al.* (2007) also lists ~~many online~~ several sources of relevant species data and information, some of which remain online. These include:

- **Alliance for Zero Extinction (AZE) sites:** www.zeroextinction.orgwww.zeroextinction.org
- **World Turtle Database:** http://emys.geo.orst.edu/main_pages/database.html
http://emys.geo.orst.edu/main_pages/database.html
- **Global Amphibian Assessment:**
www.amphibians.org/redlist/
<https://www.amphibians.org/resources/searchable-databases/>
- ~~•~~ **HerpNet:** www.herpnet.org
- **Biodiversity Hotspots Vertebrate Species Database:**
www.biodiversityhotspots.org/xp/Hotspots/search/Pages/search.aspx
www.biodiversityhotspots.org/xp/Hotspots/search/Pages/search.aspx
- **Mammal Species of the World:** www.bucknell.edu/msw3/
www.bucknell.edu/msw3/
- ~~•~~ **Mammal Networked Information System:** <http://manisnet.org/>
- **Wikipedia** (<https://www.wikipedia.org/>) sites for the species concerned typically provides much useful information

Appendix G
Glossary of terms used in the Strategic Framework

The following are new additions to the glossary of terms.

population (Criterion 9) – in this case meaning either:

- i) the entire population of a monotypic species;
- ii) the entire population of a recognized subspecies;
- iii) a discrete migratory population of a species or subspecies, i.e., a population which rarely if ever mixes with other populations of the same species or subspecies;
- iv) a well-defined '(regional) management unit' that is international in geographical scale; and/or
- v) a regional group of sedentary, nomadic or dispersive animals with an apparently rather continuous distribution and no major gaps between breeding units sufficient to prohibit interchange of individuals during their normal nomadic wanderings and/or dispersal.

turnover- (Criteria 5 & 6 & 9) – the throughput of waterbirds a species using a wetland during migration periods such that the cumulative total number of individuals using the site is greater than the peak count at any one time.