



Key Biodiversity Areas Proposal Process

Guidance on *Proposing, Reviewing, Nominating* and *Confirming* sites.

Version 1.1 September 2022



Key Biodiversity Areas Proposal Process

Guidance on *Proposing, Reviewing, Nominating* and *Confirming* sites.

Version 1.1 September 2022

Citation: KBA Secretariat (2022). Key Biodiversity Areas Proposal Process: Guidance on Proposing, Reviewing, Nominating and Confirming sites. Version 1.1. Prepared by the KBA Secretariat and KBA Committee of the KBA Partnership. Cambridge, UK.

DOI: [Link when published](#)

Cover photo: Galapagos Land Iguana (*Conolophus subcristatus*), a species likely to trigger KBA status under criteria A1b and B1. © A.J.Plumtre.

Prepared by the KBA Secretariat for the KBA Committee.

Contents

Contents.....	3
1. The KBA Programme	6
2. The Global Standard, KBA Guidelines and KBA Proposal Process	6
2.1 The Global Standard for the Identification of KBAs	6
2.2 The Guidelines for using A <i>Global</i> Standard for the Identification of KBAs.....	7
2.3 Purpose of the current document: Key Biodiversity Areas Proposal Process: Guidance on Proposing, Reviewing, Nominating and Confirming sites.....	7
2.4 Proposal process.....	8
3. Roles of different actors in the process of Proposing, Reviewing, Nominating and Confirming Key Biodiversity Areas	9
3.1 Role of KBA National Coordination Group (KBA NCG).....	9
3.2 Role of KBA Proposers	10
3.3 Role of the KBA Regional Focal Point.....	10
3.4 Role of External Reviewers	11
3.4.1 Targeted external reviews.....	11
3.4.2 Online review	12
3.5 Role of KBA Secretariat in Confirming Sites.....	12
4. Proposing a site as a KBA	12
4.1 Scoping likely species that might trigger KBA status.....	12
4.2 Where to find data on the assessment parameters	13
4.2.1 Mature individuals	13
4.2.2 Area-based parameters.....	14
4.2.3 Localities.....	14
4.2.4 Distinct Genetic diversity.....	15
4.2.5 Density or relative abundance of mature individuals	15
4.3 Spatial data.....	15
4.3.1 Submission of KBA boundary shapefiles	15
4.3.2. Submission of KBA element shapefiles.....	15
4.3.3 Submission of global distribution shapefiles	16
4.4 Adding KBA elements to an existing KBA.....	16
4.5 Documentation requirements.....	17

4.6 The World Database of KBAs and KBA Proposal Portal	17
4.7 Submission of a KBA Proposal.....	17
5. Review of proposed KBAs.....	18
5.1 Organisation of the Review	18
5.2 Who reviews what at each stage?	18
5.2.1 Regional Focal Point	18
5.2.2 External review.....	19
6. Nomination of site as a KBA	20
6.1 Responding to feedback from Reviews	20
6.1.1 Contention over the values of the assessment parameters for a biodiversity element at global or site level	20
6.1.2 Contention over the presence of a species at a site	21
6.1.3 Contention over the boundary delineation of the KBA.....	21
6.1.4 Contention over taxonomy or Red List category of the species	21
6.2 Further Review	22
6.3 Nomination of KBA	22
7. Confirmation of site as KBA.....	22
7.1 Checking by KBA Secretariat	22
7.2 Publication on KBA Website and IBAT	23
8. Appealing a KBA that is confirmed	23
References	23
Annex A: National KBA Coordination Groups: guidance on the process of establishment and main roles.....	25
A.1 Roles of the KBA NCG	27
A.2 Key tasks of the KBA NCG required for KBA identification and proposal	27
Annex B. Documentation and Mapping Standards for Key Biodiversity Area Assessments. v.1.2	30
B.1 Data Documentation Standards	31
B.1.1 Required Supporting Information.....	31
B.1.2 Recommended Supporting Information	32
B.1.3 Discretionary (Optional) Supporting Information.....	32
B.1.4 Guidance notes on some required and recommended fields.....	32

B.2 Mapping Standards	39
B.2.1 Why spatial data are required	39
B.2.2 KBA boundaries.....	40
B.2.3 Site polygon maps	40
B.2.4 File format.....	41
B.2.5 Drawing a KBA polygon	42
Annex C. Guidance on using the Online Proposal Portal	46
C.1. Registering in the World Database of KBAs	46
C.2. Logging into WDKBA - overview.....	48
C.2.1 Sites page	48
C.2.2. Reports Page	49
C.2.3. Monitoring.....	50
C.3. Proposing a new KBA.....	50
C.3.1. About Proposal page	50
C.3.2. Site Details page	51
C.3.3. Assessment page	55
C.3.4. Threats and Actions page.....	60
C.3.5. KBA Criteria page	62
C.3.6. Inviting co-proposers.....	62
C.3.7. Proposing the site	63
C.4. Re-assessment of existing KBAs.....	63
C.5. Review comments	64

1. The KBA Programme

The vision of the KBA Programme is *a comprehensive network of sites that contribute significantly to the global persistence of biodiversity, which is appropriately identified, correctly documented, effectively managed, sufficiently resourced and adequately safeguarded*. The Key Biodiversity Area (KBA) Partnership of 13 international conservation organisations¹ was launched in September 2016. The KBA Partnership supports the development and implementation of the KBA Programme, which consists of the current and future efforts to develop and maintain an up-to-date, fully documented list of sites identified against the KBA Standard, and to communicate, promote and position this information to enable achievement of the KBA vision. At the core of the KBA Programme is the KBA identification process, comprising the steps of Proposal, Review, Nomination and Confirmation. Various players are involved throughout the process: KBA National Coordination Groups, KBA proposers, KBA Regional Focal Points, KBA Validation expert, the KBA Secretariat, international expert groups, etc.² and the process is underpinned throughout by the World Database of Key Biodiversity Areas™ (hereafter referred to as the WDKBA). Anyone with relevant information on biodiversity elements that could potentially qualify a site as a KBA can propose a KBA.

2. The Global Standard, KBA Guidelines and KBA Proposal Process

2.1 The Global Standard for the Identification of KBAs

This *KBA Proposal Process* guidance aims to help individual experts or organizations who want to propose new KBAs, or update/re-assess existing KBAs applying the [Global Standard for the Identification of Key Biodiversity Areas](#) (IUCN, 2016 – henceforth *KBA Standard*). It provides a step-by-step guide to the process of identifying or updating KBAs and where proposers can reach out for help in doing this. The steps outlined below assume that KBA identification is carried out at the national level using information for several taxonomic groups or elements of biodiversity in a coordinated fashion (ideally through a KBA National Coordination Group). Many of the steps, however, will also be applicable when the goal is to identify a single KBA or several KBAs based on a single taxonomic group or specific biodiversity elements (e.g. for threatened ecosystems).

¹ American Bird Conservancy, Amphibian Survival Alliance, BirdLife International, Conservation International, Critical Ecosystems Partnership Fund, Global Environment Facility, IUCN, NatureServe, Rainforest Trust, Re:wild, Royal Society for the Protection of Birds, World Wildlife Fund and Wildlife Conservation Society

² More information on these players can be found at the KBA Website: <https://www.keybiodiversityareas.org/working-with-kbas/proposing-updating>

The *KBA Standard* (IUCN, 2016) was prepared by the IUCN Species Survival Commission and World Commission on Protected Areas, in collaboration with the IUCN Global Species Programme. It describes 11 criteria, with an additional 12 sub-criteria, that can be applied to determine whether a site is a KBA. The *KBA Standard* defines the main terms required to apply the criteria, the thresholds that need to be met for each of the criteria and summarises the delineation procedures that should be applied to determine the boundaries of KBAs. This document is the authoritative account of what types of sites qualify as KBAs, and how they should be delimited.

2.2 The Guidelines for using A *Global* Standard for the Identification of KBAs

The *KBA Standard* is necessarily a short document. The [Guidelines for using a Global Standard for the Identification of KBAs](#) (KBA Standards and Appeals Committee, 2022 – henceforth *KBA Guidelines*) describe how to interpret and apply the KBA criteria and thresholds, providing the detail needed to better understand the criteria. The *KBA Guidelines* detail the approach for identifying a KBA, describe the criteria in detail with examples of different situations that may arise, detail how to delineate KBAs, document the distribution of KBA elements within KBAs, describe stakeholder consultation and advise on how to deal with uncertainty and re-assessments of sites. The purpose of the *KBA Guidelines* is to ensure that KBA identification is based on consistent, scientifically rigorous yet practical methods. The primary audience for the *KBA Guidelines* includes individuals or organisations interested in Proposing or Reviewing KBAs, [KBA National Coordination Groups](#) (KBA NCGs) and [KBA Regional Focal Points](#) (RFPs). They therefore provide guidance on how to apply the *KBA Standard*. They do not, however, provide guidance on the various steps that KBA proposers need to take, nor do they list the required and recommended data fields involved in preparing KBA proposals.

2.3 Purpose of the current document: Key Biodiversity Areas Proposal Process: Guidance on Proposing, Reviewing, Nominating and Confirming sites.

This document, the *Key Biodiversity Areas Proposal Process: Guidance on Proposing, Reviewing, Nominating and Confirming sites*. (*KBA Proposal Process*) describes the process that should be followed to propose a site as a KBA to the KBA Secretariat for publication in the World Database of Key Biodiversity Areas™ (WDKBA), or to update the assessment of a KBA (for example by adding new ‘trigger’ species, changing the boundary of a site, or re-assessing a site after 8-12 years). It assumes that one or more sites have been assessed and are believed to meet the KBA criteria and thresholds (as described in the *KBA Standard* and the *KBA Guidelines*) and describes how an individual or a KBA NCG can then formally propose the site to ensure it is recognised globally as a KBA.

2.4 Proposal process

In order for a site to become a global KBA it must meet at least one of the KBA criteria and thresholds in the *KBA Standard*. For those criteria based on individual species or groups of species, this includes confirmation that the species is present at a site with a threshold number of mature individuals (this is specified for most criteria but also recommended for the criteria where it is not specified – see the *KBA Guidelines*). KBA assessments cannot be carried out remotely simply using global datasets without ‘on-the-ground’ confirmation of presence and threshold numbers. It is therefore recommended that countries establish a KBA NCG as a mechanism for ensuring coordination and collaboration of national experts working towards the development of a single, coherent list of KBAs in each country, managing KBA information at a national level, and encouraging monitoring and conservation of sites, and encouraging the incorporation of KBAs in national legislation. It is expected that proposals for new or updated KBAs will largely originate from the countries in which they occur through KBA NCGs or, where these aren’t yet established, through national experts.

A Key Biodiversity Area (KBA) can be proposed by a KBA NCG or a KBA proposer (for example a taxonomic expert or conservation scientist not involved with the National Coordination Group). When developing a proposal for a site there is a need to undertake a scoping of the species and ecosystems that might trigger KBA status and then compile relevant data on these KBA elements to make the assessment. The proposal is developed by assessing the data against the KBA criteria and at the same time making a delineation of the proposed site if proposing a new KBA. Proposers are encouraged to engage with the relevant [KBA Regional Focal Point](#) (KBA RFP) for their region who can help guide them through the process. When a proposer is happy with their proposal, they submit it to the same Regional Focal Point for review. If a KBA NCG exists in a country, then the KBA Proposer should share the proposal with the chair of that group and work with them to make the proposal. If there is no response within two months, then the KBA Proposer may make the proposal directly to the KBA Regional Focal Point. If a KBA NCG does not exist, then the KBA Proposer should make the proposal directly to the KBA Regional Focal Point. If a KBA Regional Focal Point does not yet exist for a region, then a proposer should contact the KBA Secretariat about who to contact.

Once the proposal has reached the KBA RFP s/he will organize an independent review process involving external experts, including those with expertise on the qualifying biodiversity elements. The proposer may need to respond to comments from the independent reviewers before the proposal can be *Nominated* to the KBA Secretariat. After nomination is complete, the KBA Secretariat will check that the KBA criteria have been applied correctly, the proposal is sufficiently documented and the delineation meets the *KBA Guidelines* and *KBA Standard*. If there are any queries the KBA Secretariat may come back to the KBA RFP or proposer for clarification. Once the nomination has been approved the site is *Confirmed* for publication in the World Database of KBAs. c

A schematic diagram of the process is provided in Figure 2.4.1.

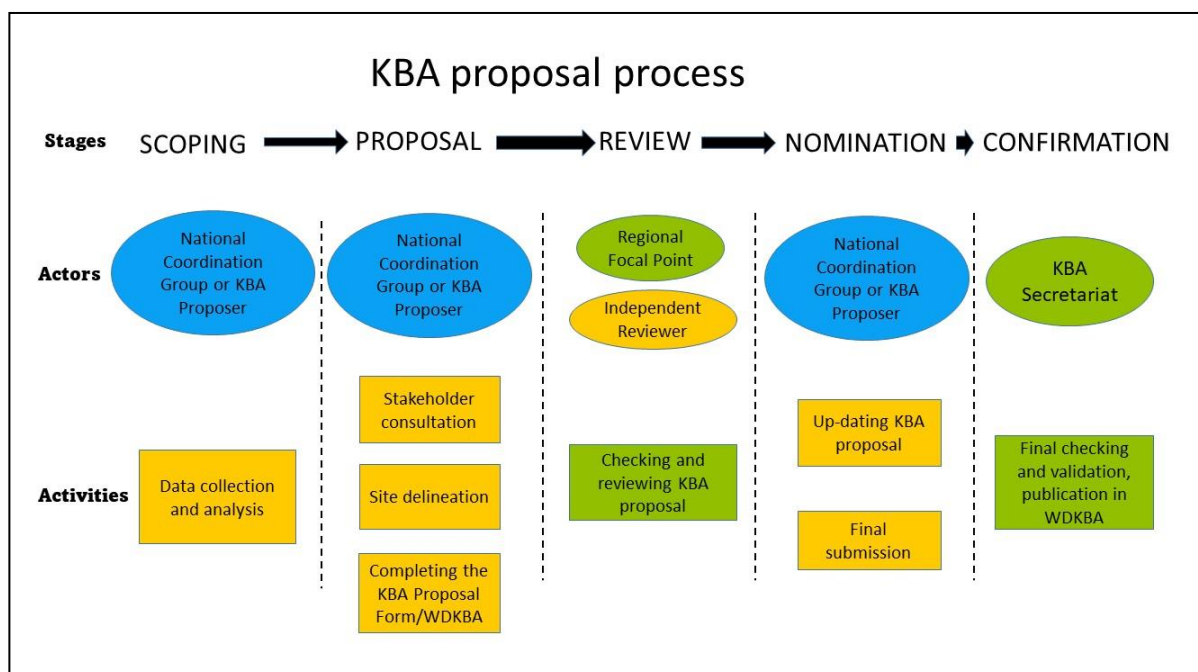


Figure 2.4.1. Schematic diagram of KBA Proposal process.

3. Roles of different actors in the process of Proposing, Reviewing, Nominating and Confirming Key Biodiversity Areas

3.1 Role of KBA National Coordination Group (KBA NCG)

The *KBA Standard* envisages that the KBA identification process will largely be driven by in-country organisations and experts to secure national support for the sites, which is essential for the future safeguard and conservation of these sites. KBA NCGs are envisaged as key structures to fulfil the role of coordinating the KBA identification process at the national level, to bring together relevant stakeholders and data in a participatory and efficient way. A KBA NCG will ideally be established in each country of the world and provide the central coordination for the identification, mapping and monitoring of KBAs as well as management of KBA data for that nation. KBA NCGs may in some countries build on or evolve from equivalent structures established previously to coordinate the identification of Important Bird and Biodiversity Areas, or AZE sites, as such groups typically involve many of the stakeholders expected to engage in KBA NCGs.

The main roles of the KBA NCG are summarised in the Annex A (Recommended process of establishment and main tasks) together with the [Recommended Terms of Reference \(TOR\) for KBA](#)

[NCGs](#) and [guidance about forming KBA NCGs](#) available on the KBA web site. The TOR document is provided as a guide for KBA NCGs but can be tailored for the local situation in each country.

3.2 Role of KBA Proposers

KBA proposers, who are not part of the relevant KBA NCG, or work in countries in which there is no KBA NCG, may include taxonomic experts, site managers, conservation scientists, museum employees, university lecturers, employees of national or international NGOs or people in similar roles who have sufficient data on species or ecosystems at a site and want to propose it as a KBA. They can be a national of the country in which the site occurs, or a non-national expert who has been working in the country.

In some instances, suites of KBAs may be assessed by teams of experts (for example a meeting of herpetologists might assess KBAs for all amphibians within a country). These assessments should develop individual proposals for each site using the process described in section 4. This is necessary in order to properly document the sites. The proposals for each site can be submitted simultaneously to the KBA NCG or Regional Focal Point (if no KBA NCG exists) as one submission, but each site will be evaluated separately.

3.3 Role of the KBA Regional Focal Point

The [KBA Regional Focal Point](#) is appointed by the KBA Secretariat. Their main role consists of providing technical support to the proposer (KBA proposer or KBA NCG) throughout the KBA identification process. Proposers are therefore encouraged to engage with their KBA Regional Focal Point early on in the process, possibly involve them in helping train members of the KBA NCG, and seek advice on application of the KBA criteria. Once the proposer has completed the first stage of the proposal process (assessing the site against the relevant KBA criteria on the basis of the latest data, compiling basic documentation, carrying out the first consultations with relevant stakeholders and delineating the site), the KBA Regional Focal Point will make the first review of the KBA proposals. Prior to engaging independent reviewers, the KBA Regional Focal Point will check that the data provided for the assessment in the proposal are reasonable, that the KBA criteria and delineation guidelines have been interpreted and applied correctly as described in the *KBA Guidelines*, and that the site boundary does not overlap existing KBAs. If the proposed or revised boundary does overlap that or another KBA (or other KBAs), then the Proposer will be asked to modify their newly proposed boundary to avoid overlap, or to consult the original proposer(s) of the overlapping KBAs to agree a common boundary (See Guidelines section 7 and 8.2).

Once satisfied that these basic requirements are met, the KBA Regional Focal Point will make the proposal available for independent review. This will comprise both an open call for inputs that is advertised widely and targeted requests to specific experts who were not involved in the KBA Proposal process and who are knowledgeable about the species, ecosystem and/or location.

Once reviews are received, the KBA Regional Focal Point will assess the reviews and where necessary return the proposal to the KBA NCG or KBA proposer and work with them to address comments that have been made by the reviewers. It may be necessary to re-send the proposal to the reviewers again once comments have been addressed, particularly where the reviews have disagreed with the global or site-level estimates of the population of the KBA trigger species.

Once the reviewers' comments are addressed and the required documentation and consultation completed, the proposer will then *Nominate* the site to the KBA Secretariat.

3.4 Role of Independent Reviewers

3.4.1 Targeted independent reviews

Independent Reviewers (independent to the proposers and KBA Secretariat), who can comment on the biodiversity elements (species or ecosystems) that have been proposed as potential triggers of KBA status at a site, will be identified when required and invited to comment on the proposal. The proposer should aim to provide the names, affiliations and contact details of independent experts qualified to review the proposal, where known. The KBA Regional Focal Point has the discretion whether or not to solicit Reviews from these experts, as well as additional people.

Reviewers can come from a number of sources including:

1. National experts from museums, universities, herbaria, NGOs, governments and other institutions with relevant expertise who have not been involved in proposing a site. The inclusion of national experts will be very important as they will likely know the most recent situation at the site and the occurrence and status of triggering elements.
2. Species Survival Commission Specialist Groups that cover the relevant species triggering a proposed KBA, for A1, B1-3, D, and E. [The KBA Regional Focal Point should send the review request to the chairs/co-chairs, for them to send it in turn to relevant experts within their Specialist Group. With time the Specialist Group could develop a core set of KBA reviewers that the KBA Regional Focal Points could contact. (<https://www.iucn.org/commissions/ssc-groups>)]. Where a species is not assessed on the [IUCN Red List of Threatened Species](#) the SSC group for that taxon will be consulted to check that it is a recognised species.
3. The Red List Authority responsible for the relevant species triggering a proposed KBA, for A1, B1-3, D, and E.
4. The Commission on Ecosystem Management Specialist Group that is mapping ecosystems globally and generating the information that will support a given ecosystem triggering a proposed KBA, for criteria A2, B4, and C. (<https://www.iucn.org/commissions/commission-ecosystem-management/our-work/cems-specialist-groups>)

5. The World Commission on Protected Areas regional contacts for KBA proposals that overlap protected areas within the region in question. (<https://www.iucn.org/theme/protected-areas/contact/protected-area-contacts-regions>)
6. Partners in the KBA Partnership with offices in the region or known relevant taxonomic expertise.

3.4.2 Online review

In addition to soliciting reviews from targeted individuals, KBA proposals will be made available for public review for a one month period through the WDKBA or KBA website, with users able to post the reviews directly to the database. At present sites can be reviewed in the WDKBA by the RFP and invited reviewers but it is envisaged that the public review will be possible in the near future.

3.5 Role of KBA Secretariat in Confirming Sites

Once a KBA has been *Nominated* by the Proposer, following review by the KBA Regional Focal Point and independent reviewers, the KBA Secretariat will then carry out final checks before *Confirming* the site as a KBA and *Publishing* it on the WDKBA. This step is primarily to confirm that the criteria and delineation guidelines within the KBA Standard have been applied correctly, the documentation is adequate, and the consultation and Review processes have been sufficient. It will therefore primarily focus on:

1. Checking that the Proposal is interpreting the terms used in the *KBA Standard* correctly, particularly the assessment parameters and specific terms in the criteria
2. Checking the criteria and thresholds have been applied correctly
3. Checking that the available data and information have been interpreted appropriately and consistently
4. Checking that the delineation of the KBA is appropriate and adheres to the *KBA Guidelines*
5. Checking that the documentation is sufficient
6. Checking that consultation and review have been adequate

4. Proposing a site as a KBA

The KBA Guidelines explain how the criteria should be applied to identify KBAs. This section describes some of the basic data that a proposer is likely to need, how to obtain the data and how to go about identifying a KBA.

4.1 Scoping likely species that might trigger KBA status

In many cases a KBA will be identified because someone working at a site knows that a species or ecosystem that is threatened (Criteria A) or geographically restricted (Criteria B) is present,

or that the site is important for aggregations, refugia or recruitment (Criteria D). They may have made an assessment of whether the site is ecologically intact (Criteria C) or made a conservation planning assessment that quantitatively identified sites of high irreplaceability (Criteria E). Where a KBA NCG or a taxon-focused group (e.g. herpetologists) want to assess a much larger group of species, it is useful to make a preliminary scoping assessment to identify biodiversity elements likely to trigger the criteria, before attempting to apply the criteria to all species in a taxon that might occur within the country. Detailed guidance on scoping is given in the KBA Guidelines (sections 2.1, 4.1 and 5.2) for criteria A1-2, B1-4, C and D1-3.

Some KBA proposers may wish to focus on identifying KBAs for a particular species or taxonomic group; whereas others may be primarily interested in a particular site and prefer to start by conducting an inventory of biodiversity elements that may meet KBA criteria and thresholds at the site. Proposers might start by assessing whether existing sites in the country, such as protected areas, might qualify as KBAs.

A scoping tool that uses range area and modelled 'area of habitat' (AoH) is being developed by the KBA Secretariat to generate shortlists of species that may trigger KBA status within a country and identify where they may trigger KBA status. This tool contains all species assessed on the IUCN Red List of Threatened Species that have polygon range data. Contact the KBA Secretariat (DBaisero@keybiodiversityareas.org) if you would like a scoping made of a particular area in your country.

4.2 Where to find data on the assessment parameters

The *KBA Standard* is designed to enable assessments of species for which there is limited information on population sizes, and there is a range of assessment parameters that can be used to infer whether population size thresholds are met for some of the species-based criteria.

Details about which assessment parameters can be used in applying the KBA criteria and thresholds, and how to resolve differences in the results found by applying different parameters are given in Section 3 of the *KBA Guidelines*.

4.2.1 Mature individuals

The IUCN Red List provides data on global population estimates for many species, often with a minimum and maximum value because of uncertainty. Site estimates of numbers of mature individuals can be compared with these estimates.

Where a species has not been assessed on the IUCN Red List, or if the species account on the IUCN Red List is old and needs to be updated, then the KBA proposer can reference a recent publication that gives an estimate of the global population/number of mature individuals to justify the use of a different or new population estimate (*KBA Guidelines* section 3.2).

4.2.2 Area-based parameters

Area of occupancy (AOO), *extent of suitable habitat* (ESH) and *range* are all area-based assessment parameters that can be used for some of the species-based criteria when there are not good estimates of the global or site numbers of mature individuals. Range and for some species AOO are given on the IUCN Red List web site.

Ranges of species can be downloaded from the IUCN Red List upon request (<https://www.iucnredlist.org/resources/spatial-data-download>). These ranges are provided in a projection of decimal degrees (Latitude, Longitude) and with the Datum WGS84. If area of these ranges is calculated in a standard GIS package they will be given in a measure of 'square degrees' which is meaningless. In order to calculate area accurately the ranges need to be projected into a metric projection. The IUCN Red List proposes using the *Equal Cylindrical Area Projection with Datum WGS84*. We have compared the results of area calculations from this projection with three other global metric projections and have concluded that KBA assessments should use this projection also when calculating the area of a range or ESH.

Area of Habitat (AoH) maps (Brooks et al. 2019), that have been validated with point data will be made available on the IUCN Red List web site in the future. These are equivalent to ESH where there are no better maps. The KBA Secretariat will maintain global ESH maps that have been used in KBA assessments for species. If you plan to use the ESH parameter for a species assessment, please check with the KBA Secretariat (DBaisero@keybiodiversityareas.org) before developing your own map to check if one already exists.

AOO has a specific method described in the *KBA Guidelines* (section 3.7) based upon a grid of 2 x 2 km for species or 10x10km for ecosystems. AOO maps, where species have been assessed using this method, are available on the IUCN Red List. Standard grids can be accessed [here](#). If you plan to use AOO maps for a species, please check with the KBA Secretariat as for ESH maps. Where global maps of AOO are proposed and accepted these will be filed and can be made available to other KBA proposers.

4.2.3 Localities

Sources of locality data include national herbaria or national biodiversity databases, the Global Biodiversity Information Facility, Global Seabird Tracking Database, Ocean Biogeographic Information System, and national databases such as NatureServe's National Species Dataset (for the US and Canada), and Inventaire National du Patrimoine Naturel for France. Locality data should be checked by an appropriate species expert to ensure that the taxonomy is up-to-date and erroneous records are removed before applying the data in a KBA assessment. If you plan to use locality data for a species, please check with the KBA Secretariat as for ESH and AOO maps. Where global maps of localities are proposed and accepted these will be filed and can be made available to other KBA proposers.

4.2.4 Distinct Genetic diversity

In some instances, the data required for analysing distinct genetic diversity will exist in the literature. This is most likely for species of conservation concern with restricted distribution, species with restricted genetic diversity, and species that are related to high value domesticated species (e.g., crop wild relatives). However, in most cases, new data will need to be collected, and compiled across a species range to allow comparisons of genetic distinctiveness.

4.2.5 Density or relative abundance of mature individuals

Density or relative abundance data, often from signs, can often be found in the literature (for example dung counts of elephants or nest counts of apes) where surveys have been published. Often such survey data are in the grey literature (unpublished reports) and may take some effort to find. The same method needs to have been applied across the species range to identify the most important 5% of occupied habitat for a species (see section 2.7 of the KBA Guidelines).

4.3 Spatial data

Spatial data are used to calculate area-based measurements (range area, ESH area, AOO area). In addition, one or more shapefiles need to be submitted with any KBA proposal. This section summarises where spatial data can be obtained and summarises what is required. Detailed information on shapefiles is provided in Annex B: *KBA Documentation and Mapping Standards*.

4.3.1 Submission of KBA boundary shapefiles

One or more shapefiles of the proposed KBA boundary must be submitted with every KBA Proposal and Nomination Form. A proposal will be returned if there is not an associated shapefile, unless the proposal is adding KBA elements to an existing KBA which already has a shapefile. The production of the KBA shapefile must take place as part of the delineation process which is described in detail in section 7 in the *KBA Guidelines*. This document does not repeat what is stated there and the proposer is encouraged to review that text before developing the shapefile. Details on shapefile submission requirements are also provided in Annex B: *KBA Documentation and Mapping Standards*.

4.3.2. Submission of KBA element shapefiles

A KBA can be designated for one or more KBA elements (figure 4.3.1). If individual KBA elements are not distributed throughout the KBA, spatial data on their distribution within the KBA can be submitted in addition to the KBA boundary shapefile. This will be useful for informing management actions, but also in the event that the status or distribution of other trigger elements changes in future and this necessitates changes to the boundary of the site. It may also be useful to be able to demonstrate the distribution of triggering elements for particular taxonomic groups or ecosystems, or for particular KBA criteria.

4.3.3 Submission of global distribution shapefiles

Where area-based or locality assessment parameters are used there needs to be an accepted map of the global distribution of a species. For range maps we will defer to the IUCN Red List of Threatened Species and only accept these maps. If you believe the map is incorrect on the Red List and you have a more accurate map, please liaise with the SSC group for that species and get agreement that the map on the Red List website will be updated before submitting your proposal. In future, some AoH/ESH maps and AOO maps for many species will become available on the Red List website. For now, and for any species where no such maps are available, we will require that you also submit a shapefile for global ESH, AOO or Locality data for your proposed trigger species so that these can be filed for others to use when making assessments for the same species elsewhere.

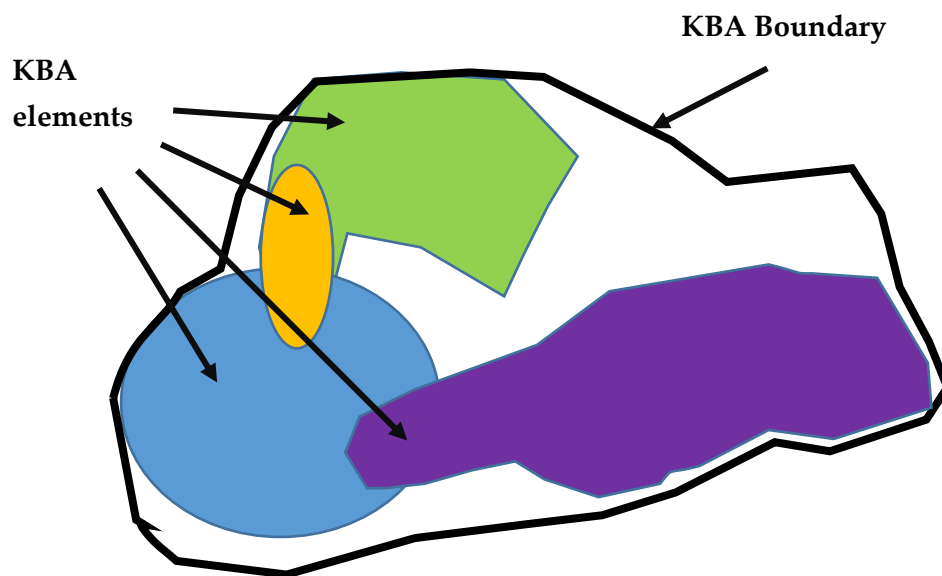


Figure 4.3.1. Relationship between KBA element distribution and the KBA Boundary. Where several KBA elements (species or ecosystem) occur within one KBA they may not all be distributed throughout the KBA. In such cases, the Proposer is encouraged to document where the species occurs within the KBA and to submit this as an additional shapefile. The boundary may also follow other jurisdictional boundaries and therefore be larger than just the location of the KBA elements.

4.4 Adding KBA elements to an existing KBA

There will be instances when a proposer wants to add additional KBA elements to an existing KBA. In this case, provided the boundary of the KBA has not changed, there is no need to submit a shapefile of the overall KBA together with the KBA Proposal and Nomination Form. However, it is valuable to review the existing KBA polygon to assess if it is accurate and precise (see Annex B) and if it is modified to check the modification with the original proposer of the site. It is recommended that, if the KBA element is not distributed throughout the KBA, the distribution of the KBA element within the KBA should be submitted as a shapefile.

4.5 Documentation requirements

It is important to document the KBA proposal adequately to allow review and validation to be made in a timely manner. For each criterion being assessed, documentation requirements are detailed in Annex B: *KBA Documentation and Mapping Standards*. It is important these standards are followed together with the *KBA Guidelines* as they will ensure all the requirements for proposing a site are met including the requirements for submission of shapefiles and site delineation. The functionality has been developed within the WDKBA to allow submission of KBA proposals to be made online through the KBA website and Annex C gives an overview of the [online proposal portal](#). The WDKBA also includes a mechanism for bulk uploading assessments relating to large numbers large numbers of sites. A KBA Multisite form was also developed in Microsoft Excel which can be used as a way to test whether the data you have for a species or ecosystem meet the criteria. This [file](#) is available on the KBA Website and a [video](#) is available on YouTube that gives the details on how to use it.

4.6 The World Database of KBAs and KBA Proposal Portal

Applying the *KBA Standard* is complex, and the WDKBA has thus been designed in such a way that a KBA proposer or KBA NCG is guided through the provision of the required data and that the KBA criteria calculations and assessments are automated based on the data provided. A Proposer needs to register online by accessing the [KBA website](#) and selecting the green button in the top right – *Login to WDKBA*. This opens a new page with the option to *Register* (blue button top right) if this is the first time to login, or otherwise login with existing credentials. Once logged in a user has access to view all sites in the World Database of KBAs (WDKBA) by selecting *Sites* on the menu on the left hand side (globe icon); users can also select if they wish to re-assess an existing site (only do this if you have the permission to do so from the NCG for that country). A user can also propose a new site by selecting the blue *Propose new site* at the top of the home page or Sites page. Selecting either will open a series of windows that guide the user in what data are required. These are very similar fields to those in the [KBA Multisite Excel Form](#). A description of the online portal proposal windows is given in Annex C.

4.7 Submission of a KBA Proposal

New proposals and re-assessments of existing sites should now be made through the WDKBA. Functionality to support the creation and/ or upload of KBAs and/ or trigger element boundaries to the WDKBA will soon be available and further details on how to use it will be provided on the KBA website. If triggering elements (species or ecosystems) do not occur throughout the proposed KBA, the proposer is also encouraged to submit a shapefile showing the distribution within the site of each element or group of elements (see section 4.5.3). Submissions should be made to the KBA Regional Focal Point for the [particular region](#).

5. Review of proposed KBAs

5.1 Organisation of the Review

When a KBA Regional Focal Point receives a proposal, they will first review it and check that it meets all the requirements (see below). They will then make the Proposal available for open Review, and may solicit Reviews from targeted individuals

5.2 Who reviews what at each stage?

5.2.1 Regional Focal Point

The KBA Regional Focal Point is a resource person who is tasked with helping Proposers go through the proposal and review process and should be considered a resource to be drawn upon to help in developing a proposal. Once a Proposal has been made, the KBA Regional Focal Point makes the first review of a KBA proposal. Prior to engaging independent reviewers, the KBA Regional Focal Point will check that:

1. the data provided for the assessment parameters in the Proposal are reasonable,
2. the KBA criteria have been applied correctly as described in the *KBA Standard* and *KBA Guidelines*,
3. delineation of the site follows the *KBA Standard* and *KBA Guidelines*.
4. that species proposed are listed on the underlying taxonomic database of the IUCN Red List (SIS) – if they are not the RFP will work with the proposer to check the taxonomy with the SSC chair of the particular taxonomic group and if accepted add the species name to the list in SIS.
5. That the documentation in the proposal is sufficient to allow sites to be reviewed, defended if challenged and re-assessed in future.

Where Criterion B2, B3a, or B3b is applied (*KBA Guidelines section 2.5 and 2.6*), the KBA Regional Focal Point needs to confirm that the species are on the standard lists of restricted-range/ecoregion/bioregion-restricted species ([provided on the KBA website](#)). If such a list does not exist for the taxonomic group in question, then the proposer needs to provide a list for the taxonomic group, which will be reviewed by the KBA Regional Focal Point and where necessary independent reviewer(s).

Once satisfied that these basic requirements are met, the KBA Regional Focal Point will make the proposal available for independent review online for a month (when the system is established) and if needed independent reviewers will be targeted with an invitation to review. In some instances, all the relevant experts may have been involved in compiling the Proposal and it is not possible to identify or obtain responses from other experts. In such cases, the Regional Focal Point should request Reviews from experts who know the species in general and can comment on the site being proposed.

A Proposed KBA may be triggered by species from multiple taxonomic groups. The Regional Focal Point should attempt to solicit reviews from experts on each of these different groups, ideally people who also know the country/region in which the Proposed KBA is located. A review period of one month will be given to all reviewers.

5.2.2 Independent review

Independent reviewers will be invited by the KBA Regional Focal Point. The Regional Focal Point may consult with the IUCN SSC groups for the relevant taxa if they do not know of a potential reviewer or if the KBA Proposer does not suggest anyone as a potential reviewer. Independent reviewers can comment on any aspect of the proposal, but will be encouraged to focus on particular aspects that the KBA Regional Focal Point and KBA Secretariat cannot assess.

The proportion of the global population of a species that occurs at the site can be observed, estimated or inferred using various assessment parameters, as described in the *KBA Standard* and *KBA Guidelines*. Independent reviewers should assess whether the most appropriate assessment parameters have been selected for the triggering element and determine whether:

1. the global values for the assessment parameter (e.g., global number of mature individuals; global extent of suitable habitat etc.) are valid?
2. the estimates for each of the assessment parameter(s) at the site are reasonable?
3. it is reasonable to claim that the triggering element (e.g., species, ecosystem) is present at the site and that identifications have been made accurately?
4. the proposed KBA boundary is appropriate?
5. if provided, the mapped distributions of the biodiversity elements within the site are appropriate?
6. additionally, if the reviewers know the site, they should assess the site description.

For some KBA criteria there are no specific assessment parameters but the area of an ecosystem or description of the ecological integrity of a site will be provided. The numbers given for area or other measures describing ecological integrity should also be assessed by the reviewer.

The application of the KBA criteria will be reviewed by the KBA Regional Focal Point and subsequently by the KBA Secretariat so this does not need to be the focus of review by the independent reviewers. It is the information about the species or ecosystem that should primarily be reviewed.

Where a reviewer disagrees with an aspect of a KBA Proposal they should provide accompanying documentation to justify why they disagree. For instance, if they disagree about the global numbers of a species they should provide a publication or source of the information that provides a revised number. This justification must be provided so that the

KBA Regional Focal Point and KBA Secretariat can make an informed decision about a proposal.

6. Nomination of site as a KBA

6.1 Responding to feedback from Reviews

When the KBA RFP receives responses from reviewers they will evaluate the reviewers' comments and assess whether there is a need to return the KBA Proposal to the original proposer (KBA proposer or KBA NCG) to address those comments. Independent review comments are likely to refer to:

1. Queries over the population estimates for a species at global or site level
2. Queries over the presence of a species at a site
3. Queries over the boundary delineation of the KBA and KBA elements
4. Queries over the taxonomy or Red List category of the species
5. Queries over an ecosystem extent or boundaries
6. Queries over the ecological integrity of a site

The KBA RFP may comment on the list above but will also comment on whether the documentation in the proposal is sufficient. The documentation of the rationale for a site's KBA status, the site description, documentation of its manageability and of its delineation are important parts of the proposal and may be important if a site is queried or challenged in future. The source of global and site estimates as well as presence of a species at a site and the numbers of reproductive units must also be well documented in case of challenges in future. Annex B gives the required documentation and examples of good documentation for fields that are often poorly completed by proposers.

6.1.1 Contention over the values of the assessment parameters for a biodiversity element at global or site level

Where an independent review disagrees with the values of the assessment parameters for a biodiversity element at either the global or site level, the reviewer must provide documentation for their figures and also discuss why the documentation provided by the proposer is not considered the most reliable information. The KBA Regional Focal Point will return the review to the original proposer and work with them to address the comments. The proposer can disagree with the reviewer's comments and they should then try to find a mutually agreeable solution to address the RFP's/Independent reviewer's original concerns. If a solution cannot be found, the RFP may also approach the KBA Secretariat and IUCN SSC Red List Authority for that taxon to discuss the data. The RFP and the KBA Secretariat will make a final assessment. The reviewer may also disagree with the best assessment parameter to use and similarly must document why they believe a different one should be applied.

6.1.2 Contention over the presence of a species at a site

For the species-based criteria, where an independent review disputes that a species is present at a site, the onus is on the proposer to properly document that the species does occur there and has sufficient reproductive units as specified in the *KBA Standard*. If the contention is that the species is being misidentified, the reviewer must provide documentation showing why the species is unlikely to occur at the site and the proposer must respond to this with some evidence (e.g. specimen or clear photographic image). The KBA Secretariat and KBA Regional Focal Point will only continue consideration of the KBA proposal in such an instance if there is credible evidence that the species is present.

6.1.3 Contention over the boundary delineation of the KBA

The boundary of a proposed KBA may be contended because:

- a. It is not ecologically appropriate for the biodiversity element (e.g. it omits much of the key habitat for a species triggering the criteria)
- b. It is not accurately delineated – the boundary does not follow the border features described in the delineation text (see Annex B)
- c. It is not well delineated as a manageable unit (see *KBA Guidelines* section 7)

The KBA RFP will return comments on each of these to the proposer and will work with them to take them into account or explain why the proposer disagrees with them. The KBA RFP may discuss the responses with the KBA Secretariat to reach a final decision on the boundary.

Revised shapefiles should be submitted if the boundary is altered based on the comments of the reviewer(s) with the following name: KBA_[internationalname]_[country]_version2. If subsequent changes take place following additional review the version number should be increased.

6.1.4 Contention over taxonomy or Red List category of the species

The KBA Review process will not aim to resolve taxonomic disagreements. The taxonomy used on the IUCN Red List (or an updated list recognised by the IUCN SSC Red List Authority for that taxon) will be the authority applied for species names. If a proposer disagrees with the existing taxonomy they are encouraged to engage with the IUCN SSC Red List Authority for their taxon to update the taxonomy first before proposing a KBA for a species that is not recognised. If there is no IUCN SSC Red List Authority for a taxon, then the KBA Regional Focal Point and KBA Secretariat will work with the proposer to engage the IUCN SSC to decide on what taxonomy is most widely recognised for that taxon and, if accepted, to add the name to SIS (Red List database with underlying taxonomy).

Similarly, the KBA Secretariat will refer to the Red List status accepted by the IUCN Red List (or an updated list recognised by the IUCN SSC Red List Authority for that taxon) and will not review the Red List status of a species if it is not accepted on the IUCN Red List. Where

proposers believe that the Red List status should be changed, they should work to update the Red List account with the relevant SSC group.

6.2 Further Review

If the comments made following the independent Review are fully accepted by the proposer and the proposal changed in the light of the comments, the KBA Regional Focal Point will check that the comments are satisfactorily addressed. If this is the case, the proposer is requested to Nominate the KBA and provide any required documentation that may have been missing before this stage.

If there is disagreement over aspects of the Review the KBA Regional Focal Point will make a decision over whether to send the proposal out for further review or not, based on the response of the proposer to the review. Rebuttals are more likely to be accepted if backed up by adequate documentation. If the KBA Regional Focal Point is not convinced by the rebuttal they may send the proposal out for further review by the original reviewer(s) and possibly other reviewers.

6.3 Nomination of KBA

Once comments received during the Review have been satisfactorily addressed by the proposer, the proposer Nominates the site with all the required information as well as shapefiles.

7. Confirmation of site as KBA

7.1 Checking by KBA Secretariat

Following the reviews by the KBA RFP and independent reviews, Nominated KBAs will be checked by the KBA Secretariat. This step is primarily to confirm that the criteria and delineation guidelines within the KBA Standard have been applied correctly, the documentation is adequate, and the consultation and Review process has been sufficient. It will therefore primarily focus on:

1. Checking that the Proposal is interpreting the terms used in the KBA Standard correctly, particularly the assessment parameters and specific terms in the criteria (e.g. restricted-range; ecoregion/bioregion-restricted, aggregations, refugia, recruitment, etc.).
2. Checking the criteria and thresholds have been applied accurately
3. Checking that the available data and information have been interpreted appropriately and consistently
4. Checking that the delineation of the KBA is appropriate and adheres to the *KBA Guidelines*
5. Checking that consultation has been adequate (see section 8 of KBA Guidelines).

Once validated, sites that meet KBA criteria for at least one element (species/ecosystems) and are documented sufficiently will be Confirmed.

7.2 Publication on KBA Website and IBAT

Confirmed KBAs will appear on the KBA website (WDKBA), and the [Integrated Biodiversity Assessment Tool](#) (IBAT) in the next scheduled update to these (which typically happen at least twice a year). IBAT not only provides the KBA data available on the WDKBA but also packages it in formats that are useful for commercial companies making Environmental Impact Assessments for a site, Strategic Environmental Impact Assessments for a larger project or scoping for Critical Habitat Analysis.

8. Appealing a KBA that is confirmed

A standard appeals process has been developed by the KBA Standards and Appeals Committee (KBA SAC) and adopted by the KBA Committee. This process should be engaged in when an individual or party disagrees over whether a site meets the KBA criteria described in the *KBA Standard* and *KBA Guidelines*.

The criteria, thresholds and delineation procedures themselves are not subject to appeal. Appeals may only concern the data that underpin the assessment or whether the criteria, thresholds, and delineation procedures have been applied in a way that is consistent with the Standard. Appeals for any other reason (subjective, political, economic, etc.) will not be entertained.

The Appeals process is coordinated by the KBA Secretariat. The KBA Standards and Appeals Committee (KBA SAC) is responsible for arbitrating over formal Appeals against the identification of particular sites as KBAs.

This appeals procedure is available on the [KBA Website](#).

References

- Brooks T.M., Pimm S.L., Akcakaya H.R., Buchanan G.M., Butchart S.H., Foden W., Hilton-Taylor C., Hoffmann M., Jenkins C.N., Joppa L. and Li B.V. (2019). Measuring terrestrial area of habitat (AOH) and its utility for the IUCN Red List. *Trends in Ecology & Evolution* 34:977-986. DOI: <https://doi.org/10.1016/j.tree.2019.06.009>
- Christenhusz, M.J.M., & Byng, J.W. (2016). The number of known plants species in the world and its annual increase. *Phytotaxa*, 261, 201-217.

IUCN (2016). *A KBA Standard for the Identification of Key Biodiversity Areas, Version 1.0. First edition*. Gland, Switzerland: IUCN.

KBA Standards and Appeals Committee (2018). *Guidelines for using a KBA Standard for the Identification of Key Biodiversity Areas*. Version 1.0. Prepared by the KBA Standards and Appeals Committee of the IUCN Species Survival Commission and IUCN World Commission on Protected Areas. Gland, Switzerland: IUCN.

Annex A: National KBA Coordination Groups: guidance on the process of establishment and main roles

The *Global Standard for Identification of Key Biodiversity Areas (KBA Standard)* contemplates the KBA identification process to be largely driven by local organisations and experts to secure buy-in and ownership, which are essential for the future safeguard and conservation of these sites. KBA National Coordination Groups (KBA NCG) are proposed as key structures to fulfil the role of coordinating the KBA identification process at the national level to bring together relevant stakeholders and data in a participatory and efficient way. A KBA NCG will ideally be established in each country of the World and provide the central coordination for the identification, mapping and monitoring of KBAs as well as management of KBA data for that nation.

This annex provides guidance to relevant stakeholders (e.g. national representatives, Partners or offices of KBA Partners, governments and others) regarding the process of establishing National KBA Coordination Groups (NCGs). It also outlines the main tasks KBA NCGs can perform in the KBA identification, documentation, promotion and conservation process. Other relevant documents to this process include the “[Recommended Terms of Reference for National KBA Coordination Groups](#)”, “[Guidance on Forming KBA National Coordination Groups](#)”, where more details are given about how to form KBA NCGs than is possible here, and *KBA Guidelines*. It is recognized that the mechanism for the establishment and operations of KBA NCGs will differ in each country and the aim of these recommendations are for general guidance to help steer groups that are forming.

It is understood that the structure and composition of the KBA NCGs will vary according to the needs of the country. The membership of the KBA NCG may include representatives of the following organizations and stakeholder groups:

- National representatives of the KBA Partners
- Other organizations and scientific institutions holding relevant data or expertise
- Relevant government departments and agencies, particularly those that can support the conservation or protection of sites identified
- Private sector organizations holding relevant data on KBAs
- Representatives of indigenous peoples and local communities.

It is hoped that KBA NCGs have some representation by governments and stewardship bodies because these bodies have the mandate to develop, implement and enforce policy and legislation, designate and manage protected areas, and will hopefully use KBAs for planning purposes. However, it is recognised that in some countries it may not be possible to always involve government representatives initially.

It is likely KBA NCGs will become established in a variety of ways but we here give suggestions on how to catalyse these groups and what they will be responsible for.

Step 1: Forming a core group of national representatives of KBA Partner organizations and/or other interested groups: as a first step, national representatives of the relevant KBA Partners and groups who have interests in forming a KBA NCG should form a small group to work on establishing a KBA NCG. Usually, there is more than one organisation with these interests in a given country and therefore coordinating their respective activities related to KBAs is highly desirable. These organisations may hold information on KBAs previously identified in the country (IBAs, AZE sites, CEPF KBAs, etc.) and would also typically carry out a wide range of activities on KBAs such as monitoring, on the ground conservation, community outreach, management, restoration, awareness-raising and capacity building.

Step 2: Identifying stakeholders to form the National KBA Coordination Group: the core group of KBA Partner national representatives should compile a list of stakeholders who hold data relevant for the identification of KBAs or who may be interested in engaging in their identification. These stakeholders will normally include national or international scientific institutions, museums, universities or conservation NGOs (including AZE members) working on one or more taxonomic groups (e.g. mammals, amphibians, reptiles, marine or freshwater fish, plants, invertebrates) or other biodiversity elements (e.g. ecosystems, habitats). They will ideally include representatives of relevant governmental departments and agencies also who will be able to mainstream KBAs into national legislation and policy. It is important to identify individual experts within these institutions but also independent experts who can contribute to the process.

Step 3: Prepare a brief Terms of Reference for the KBA NCG: A brief and simple ToR should be developed by the core group for the KBA NCG including the rationale for the group, principles of operation, criteria for membership, operational procedures and expected results/outputs. This can be developed on the basis of the document “Recommended Terms of Reference for KBA NCGs” available on the [KBA Website](#). There should be a clear reference to the KBA identification process and how the KBA NCGs work will feed into it as well as how the group will aim to monitor and secure the KBAs for the future. The group will appoint a chairperson, who initially could be a representative of a KBA Partner organisation, because of the need to understand how to apply the KBA criteria, and the Chair could be rotated at fixed intervals. The TOR should also define the process for decision-making and internal procedures.

Step 4: Invite experts to take part in the work of the KBA NCG: Once the main stakeholders are identified, they should be invited to participate in the work of the KBA NCG. In larger countries or those with very large and active research and conservation communities, there may be too many individual experts to sit on the Group itself, so it should be agreed on how experts should be selected to represent their areas of expertise (taxonomic groups, government and conservation managers) on the KBA NCG. The KBA NCG should have the

broadest possible representation of these groups and should work on the basis of inclusion, collaboration and consultation, but at the same time be flexible enough to make decisions. We therefore recommend that ideally no more than 12-20 individuals should be in the KBA NCG.

A.1 Roles of the KBA NCG

The main roles of the KBA NCG include the following:

- Coordinate KBA proposals and re-assessments of sites at the national level
- Compile and maintain a database of relevant stakeholders at the national level who can play a role in the KBA Programme
- Ensure that members of the KBA NCG and KBA Proposers apply the *KBA Standard* correctly
- Coordinate the application of the *KBA Standard* to review existing KBAs and identify new ones with relevant experts. This can include the organisation of national or sub-national workshops with experts.
- Ensure accurate and precise delineation of KBAs and that they do not overlap with existing KBAs for the country. Where there is overlap, the KBA NCG will help resolve it by encouraging review and consensus-building with proposers of existing KBAs
- Ensure adequate consultation takes place in the development of a KBA proposal as described in the *KBA Guidelines*
- Provide the liaison with the relevant KBA Regional Focal Point
- Organise the submission of proposals in close collaboration with the KBA Regional Focal Points and/or the KBA Secretariat
- Maintain national documentation about the KBAs of the country and encourage monitoring and conservation of each site
- Promote the use of KBA data and KBA sites nationally and internationally to support conservation and sustainable development planning and implementation.
- Coordinate fundraising efforts, including the engagement with donors and development actors active in their countries, supporting conservation of KBAs
- Collaborate with the national focal points of the relevant international Conventions (e.g. CBD, Ramsar, CMS, World Heritage) to ensure that KBAs are taken into consideration in national implementation plans and strategies
- Work to encourage recognition of KBAs nationally to improve their protection
- Where it makes sense, develop a national strategy for the conservation and sustainable management of KBAs. This could include information on research, monitoring, advocacy, policy, awareness-raising and capacity building aspects of the KBA initiative.

A.2 Key tasks of the KBA NCG required for KBA identification and proposal

The main tasks of the KBA NCG related to the *identification, documentation and proposal* of KBAs are summarized here:

- Establishing contact with the relevant KBA Regional Focal Point and the KBA Secretariat (see KBA Website <http://www.keybiodiversityareas.org/>)
- Identifying potential funding sources for the work of the KBA NCG.
- Taking stock of existing information relevant to the application of the *KBA Standard*. This information should include: global and national Red Lists, data on the distribution, population and ecology of species by taxonomic group, vegetation maps, information on ecosystems, etc.
- Once established, the KBA NCG should agree on a process of assessing KBAs nationally - which taxa to assess and how. Once a first national assessment has been made for several taxa it is likely that the KBAs identified will be updated by assessments made by specific taxon-focused interest groups or groups interested in particular sites. The KBA NCG should play a role of encouraging and facilitating these groups.
- Agreeing on principles of data sharing among the participating institutions and individual experts for the benefit of KBA identification.
- List and map sites, starting with the existing KBAs identified in the country, and their trigger species and digitized boundaries (available from www.keybiodiversityareas.org), then scoping and compiling lists of potential trigger species or ecosystems, their distribution, key localities and population information for each of the relevant KBA criteria and sub-criteria. These lists should include information on the species or ecosystems likely to meet the KBA criteria.
- Apply the relevant KBA criteria and sub-criteria to identify candidate KBAs for individual trigger species or groups of trigger species within the country following the *KBA Guidelines*. It is important to use the existing KBAs as a starting point to assess: a) whether new trigger species should be added to those already identified for these KBAs, potentially with adjustments to the existing site boundaries; or b) whether new KBAs should be identified on the basis of the distribution and population data of potential trigger species or ecosystems outside the boundaries of existing KBAs.
- Where existing KBAs are based on older assessments of IBAs, sites identified through CEPF ecosystem profile processes, or important freshwater sites that did not apply the thresholds in the *KBA Standard*, these KBAs should also be assessed against the criteria to assess if they meet global or regional KBA status.
- For a first national assessment, organising a series of national workshops to bring together experts and information is recommended. An initial workshop providing training in the KBA criteria and how to apply them, with practical application to data from the country, is a good way to start the process. This can be followed up by nominating working groups to assess different taxa over a period of time and subsequent workshops to present and assess the resulting KBAs that are identified.
- Provide relevant information on proposed new KBAs or re-assessments of existing KBAs using online *Proposal Portal* on the KBA website, uploading information directly to the World Database of KBAs.

- On the basis of the expert feedback, work with the original proposers of any existing KBAs to agree on any revisions to the boundaries of existing sites, and if necessary, collect and provide new information to confirm the validity of proposed sites.
- Compile all the required information for a KBA proposal and work with the KBA Regional Focal Point to make the proposal and respond to independent reviews of the proposal. Once the KBA Regional Focal Point is happy that the proposal meets all the requirements the KBA NCG will then officially nominate the KBA using the *Proposal Portal*.
- Work with KBA proposers that come to the KBA NCG wanting to propose a new KBA or add a new qualifying element to an existing KBA. In particular the KBA NCG can help them apply the KBA Criteria correctly and put them in touch with KBA Regional Focal Points for support.

Annex B. Documentation and Mapping Standards for Key Biodiversity Area Assessments. v.1.2

Please note that this is a working document which is subject to modification and addition; all future versions will be given a new version number. If you are unsure whether you are working from the most recent version, please check the KBA website or contact the KBA Secretariat. This document should be used in conjunction with, and makes frequent cross-reference to, the *KBA Guidelines*.

This document provides detailed instructions for documenting and mapping KBAs to support assessments for inclusion in [The World Database of Key Biodiversity Areas](#)™ (WDKBA). The WDKBA is the ultimate authority on KBAs; sites displayed as KBAs elsewhere have not necessarily been reviewed and confirmed as KBAs by the KBA Secretariat. The information presented here describes the required and recommended supporting information for KBA assessments, and complements the [KBA Guidelines](#). **It is important to follow the instructions and standards set out in this document closely to maintain consistency and high standards within the WDKBA, and to use this document in conjunction with the KBA Standard and the KBA Guidelines. Many proposals that are submitted are returned for additional work because the documentation is not sufficient so please read this guidance carefully.**

In addition to instructions for supporting information, this document includes a list of the standard checks that need to be carried out before assessments are submitted for inclusion in the WDKBA (the WDKBA includes an automated integrity checker which will perform many of the basic checks).

For assessments being submitted from a major assessment project (e.g., comprehensive KBA assessments for one or more taxonomic groups at national or regional levels) or assessments submitted by KBA National Coordination Groups (NCGs), it is the responsibility of KBA NCGs or KBA Regional Focal Point (RFP) to ensure that all assessments have been checked (for supporting information and consistency) before submitting them for review and eventual publication on the WDKBA. If no KBA Regional Focal Point or NCG is in place for the country, KBA proposers should contact the KBA Secretariat. The KBA Secretariat will carry out further consistency checks on submitted assessments to confirm that the *KBA Standard* has been applied appropriately and consistently. The KBA Secretariat cannot carry out thorough supporting information checks for ALL submitted assessments; hence any indication that standards have not been adequately followed will result in assessments being returned for revision and resubmission later, delaying the proposal process.

Please keep this document to hand for reference while entering information on KBAs into the WDKBA ([see box below](#)). If there is something you need to know which is not covered here, please contact the KBA Secretariat.

A note on WDKBA

In due course, all data relating to KBA proposals must be entered in WDKBA, and the KBA criteria met will be calculated from the data entered. At present the functionality to capture tabular data has been developed but the planned spatial component is not yet completed. The fields described below need to be completed when proposing a site. At present shapefiles for proposed or revised KBA boundaries and KBA trigger elements need to be submitted separately from the rest of the proposal to the KBA Regional Focal Point. In future it will be possible to submit these directly in the *Proposal Portal* and view them in relation to existing sites, protected areas and other KBAs in the process of being proposed.

B.1 Data Documentation Standards

This section describes the required and recommended *tabular* data fields that need to be completed for all KBA proposals. These include information on the site, the biodiversity elements that trigger KBA criteria and information on threats to the site. Section 2.0 describes the *spatial* data needed for all KBA proposals, describing how maps should be prepared.

Data documentation fields fall into three classes:

B.1.1 Required Supporting Information

Supporting information essential for ALL KBA assessments before they can be accepted for publication on the WDKBA. There are two subsets of required information:

- Supporting information required for **all** proposals
- Supporting information required only for certain KBA criteria

For example, information such as site name, country etc. must be provided for all proposals. However, if you are proposing a KBA on the basis of threatened species, there is no requirement to provide data on threatened ecosystems, although you should always try to assess a site against as many KBA criteria as possible. Sufficient information must be provided to allow at least one KBA criterion to be assessed. The supporting information required for all KBA proposals, a summary of the individual data fields and their units or format is given in Table 1. Supporting information required for each KBA criterion, not all of which are required for each proposal, a summary of the individual data fields, their units or format and their requirement for each KBA criterion is given in Table 2.

B.1.2 Recommended Supporting Information

Recommended supporting information is not essential for a KBA proposal to be accepted for publication in the WDKBA but is *strongly encouraged* for all assessments and contains information important for the site's conservation. Recommended supporting information, a summary of the individual data fields and their units or format is given in **Table 3**.

B.1.3 Discretionary (Optional) Supporting Information

Supporting information that is not essential for a KBA proposal to be accepted for publication on the WDKBA, but specific projects or proposers may wish to record this for their own information or analysis purposes. KBA project managers should clearly identify which additional fields they want to include in assessments and inform assessors contributing to the project about this at the start of the project.

B.1.4 Guidance notes on some required and recommended fields

Guidance notes on required and recommended fields are given in the tables below. Additional notes and guidance are given below.

Site names: There are no rigorous rules for naming KBAs, although it is recommended that the following should be observed:

- Where the KBA is equivalent, or almost equivalent, to an existing protected area, it should be given the same name as the protected area, although generally avoiding using the protected area category as part of the name (e.g. "Danube Delta", rather than "Danube Delta Ramsar Site") as there may be several designations at the site, each with boundaries that may change over time; where however the protected area name is in common usage, such as "Yellowstone National Park", and where this is unlikely to change, then this may be used.
- Where the KBA is larger than an existing protected area that is contained within the KBA, the difference should clearly be reflected in the name to avoid confusion (e.g. "Loch Maree and surrounding hills").
- KBA names should not include abbreviations (for example, use "Mountains" and not "Mts"), and should not include the acronym "KBA" or any other acronyms.
- KBA names should not include the name of any taxa (e.g. "Buxa Important Reptile Area"), because data on other taxa may be added over time.
- International names should be in English or use local geographically appropriate names and use only Roman characters, whereas national names can use any character set supported by UTF8 (e.g. Arabic, Cyrillic etc.) and should use diacritic marks (accents etc.) where appropriate.
- Where indigenous names are used it is strongly recommended that customary rights holders are involved and give their consent
- Names should be less than 250 characters in length.

OECMs: This free-text field should be used to describe whether the site is likely to meet the definition of an "[other effective area-based conservation measure](#)" (OECM). The current definition of an OECM is: "A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes

“Source” fields: Field names beginning with the word “Source” are used to capture a written description of where the data relating to that field have come from. For example, if the data relating the population of a species at a site has come from a published scientific paper, the field “Source_site_individuals” should provide a reference to that paper, or a web link to it.

Section in WDKBA	Purpose	Guidance notes	Data field names and units/format
Register in WDKBA: Data Captured when registering to use the WDKBA: Names, affiliation, contact details and relationship to relevant KBA Partner (if one exists), Agreement to data terms of use	<p>To identify who is proposing a new KBA or changes to an existing one</p> <p>To alert Regional Focal Points about potential KBA proposals</p> <p>To identify links between KBA Partners and affiliates To allow proposers and reviewers to be contacted easily in the case of the assessment content being questioned</p> <p>To support WDKBA functionality Proposer agrees to allow data storage in WDKBA and use of data to identify and conserve KBAs</p>	<p>- All contact details are stored within WDKBA; only names (e.g. surname and initials of individuals, or name of KBA National Coordination Group) are displayed</p> <p>Users not agreeing to these terms of use should contact the KBA Secretariat before proceeding further</p>	<p>Name (text) Email (text) Organisation (text) Country where living (select from dropdown) Role (select from dropdown): either individual or NCG Country (ies) of interest (text; selection from dropdown) <i>KBA_Partner</i> (optional: selection from dropdown if affiliated with a KBA Partner institution) Password (text) (repeated for validation)</p> <p>Terms_of_use (check box -must agree to data being stored on WDKBA before can register)</p>
Date of proposal submission	<p>To identify priority where proposed KBA boundaries overlap To ensure timely review</p>	All required fields are indicated on Sheet 3 of Interim KBA Data Form	Date of Proposal: (Automatically recorded when proposals are submitted to RFP)
About proposal	<p>To record what criteria have been applied by the proposer To record what consultations were made when developing the proposal Provide suggestions for independent reviewers</p>	Ideally all criteria are considered for a site. However, it is recognised that often the data are not available to do this. Select which Criteria were applied to KBA trigger elements in the proposal. Include criteria that were applied where no	<p>Criteria assessed (selection from dropdown) Consultation: Biodiversity Knowledge Holders (text; which scientific experts contributed data to proposal for site) Previous proposers (text; where an existing KBA is being modified it is important to record who was consulted who was involved in the previous proposal) <i>Government</i> (text; who was consulted when developing the</p>

Section in WDKBA	Purpose	Guidance notes	Data field names and units/format
		trigger elements were identified Consultation field should include specific names and ideally e-mail addresses in case follow up is needed. Make sure that the people whose names and email addresses included in this section have consented to providing their details. Note: their names and contact details will not be accessible by the public.	proposal in government institutions) <i>Customary or legal rights holders</i> (text; what consultations were made with customary/legal rights holders) Reviewers (text; must include name, affiliation and contact details, preferably an email address)
Site Details: Name and Location	To uniquely identify the proposed or exiting KBA To support WDKBA functionality	-The KBA ID is available for existing KBAs and will be assigned to new KBAs on first submission -See notes above on naming sites	Site_ID (unique numeric code – automatically generated by WDKBA) <i>Site_name_national</i> (text; optional -can be in any script) Site_name_international (text; must be in roman script) Country_or_territory (text; selection from dropdown) <i>State/Province</i> (text; optional)
Site Details: Site Details	Description of the site, including a brief narrative summary of why the site is important, a brief description of the site (habitat etc.), how the site is manageable, delineation rationale (i.e. how the boundaries of the sites were drawn), and how the site relates to existing protected areas with their names. This section may also elaborate on whether the site may qualify as an OECM, and why.	The free text fields should be written in English and will be displayed in WDKBA as summaries of why the site is important. In particular Site description, Rationale for KBA status, Delineation rationale and Manageability are important fields that will be used to populate text on factsheets for the site on the KBA website. Examples of suitable text for these fields are given below this table.	Site_description (text; used on KBA fact sheet) <i>Site Area</i> (numeric; in km2) <i>Latitude</i> (numeric; dd.dddd) <i>Longitude</i> (numeric; dd.dddd) <i>Elevation</i> (numeric; Lowest and Highest elevation in metres a.s.l OR Bathymetry in m below sea level) System (text; multiple selection from dropdown) Rationale_for_KBA nomination (text; rationale on why site should qualify as a KBA; When sites are re-assessed or trigger elements added this rationale needs to updated also) <i>Additional biodiversity values</i> (text; what else may be a conservation target at the site but don't trigger KBA status) <i>Site values</i> (text; list whether the site has any indigenous groups that hold customary rights at the site)

Section in WDKBA	Purpose	Guidance notes	Data field names and units/format
Site Details: Manageability and Delineation	To describe why the boundaries were placed where they are in the shapefile and to describe how the site is considered manageable. This section also records which KBAs are superseded by a new KBA (NOTE: agreements with the original KBA proposers is needed before this can be proposed)	The aim of this section is to understand the thinking behind the delineation and manageability and to provide sufficient information that, should the site be challenged, it can be defended.	Site_manageability_rationale (text; describe how the site is considered a manageable unit) <i>Superseded sites</i> (text; name what KBAs are being replaced by the new site here and why) Delineation_rationale (text; describe why the boundaries were placed where they are) Upload GIS files (Upload files)
Site Details: Protected or Conserved areas	Provide estimates of coverage of the site by recognised protected areas and OECMs.	Protected areas should be taken from Protected Planet and the World database of PAs. OECMs should be officially recognised and published in the OECM database	Coverage by Protected Area (numeric range; selection from dropdown of 10% interval ranges) <i>Coverage by PA calculated</i> (numeric; add this if you have calculated it exactly) Coverage by OECMs (numeric range; selection from dropdown of 10% interval ranges) <i>Coverage by OECMs calculated</i> (numeric; add this if you have calculated it exactly)
Site Details: Habitats and Land Use	Provide a summary of the types of habitat and land use taking place at the site	List the main habitat types at the site together with their approximate percentage coverage of the site. Also describe how the land at the site is currently managed and who manages it.	<i>Habitats description</i> (text; List the IUCN habitat categories present at the site and approximate percentage coverage of the site) <i>Land use at site</i> (text; describe the current land use at the site and who manages it)
Site Details: Pressures	Capture the general threats affecting the site which may include additional threats to those affecting the trigger elements	Think about the major threats affecting the integrity of the site and list them here.	Threats description (text; describe the main threats impacting the site as a whole)
Site Details: Additional details	Capture notes that may help the Reviewers better understand any responses to the fields relating to the site. Also give additional references if they exist that relate to the site as a whole.	Add additional explanation about the site and clarify any issues which may not be easily addressed in the other fields about the site.	<i>Additional details</i> (text) <i>References</i> (text)

Table B.2. Supporting information for assessment of trigger elements. Required fields are in bold, recommended fields are in italics.

Pages in WDKBA Proposal Portal	Purpose	Guidance notes	Data field names and units/format
Assessment page: Species-based criteria (A1, B1-B3, D1-D3) Search by Scientific name for the species -type first 6 letters and slowly add to the name until you see the option you want in the selection list below the window.			
Species Assessment: Species	To provide the relevant data for a species that may trigger KBA status	<p>The WDKBA uses the extended SIS list of species that underpins the IUCN Red List of Threatened Species. If your species does not appear as you search for it, then contact the RFP or KBA Secretariat. If a common name exists add that.</p> <p>Many fields will be entered automatically when proposing on the WDKBA here – Taxonomic group, IUCN Red list status, Range restricted status (B2), and eco/bioregion restricted status (B3a/B3b). If you believe your species is restricted (B2/B3a/B3b) and is not shown as such, please contact the KBA Secretariat which maintains lists of restricted species.</p>	<p>Scientific_name (text; selection from dropdown or autofill) Common_name (text; Enter if this exists) Taxonomic_group (text; autofill from WDKBA) Global_RL_status (text; autofill from WDKBA) Red_list_criteria (text; autofill from WDKBA) Assessment system (text; auto-filled as 'IUCN Red List' if WDKBA contains species threat status already; alternatively proposer can propose an alternative system (eg. G-ranks) if species is not assessed on IUCN Red List) A1c/d_status (Auto calculated by WDKBA - binary variable indicating whether species should be assessed under KBA sub-criteria A1a,b or A1c,d) Range Restricted (Yes/No from dropdown; autofill from WDKBA) Ecoregion/Bioregion restricted (B3a/b – auto-filled by WDKBA) Name of eco/bioregion is also provided automatically.</p>
Species Assessment: Assessment	To provide the global and site data for a species that will be used to calculate whether they meet the KBA Standard as trigger species	<p>Here data on the season for which the site is being assessed (resident=present year-round (default); breeding, non-breeding and migration stop over site). Select the assessment parameter used. If range is selected and there is a polygon range on the Red List, the correct area will be supplied for the global estimate. Similarly, if the mature individuals are recorded on the Red List these will be provided.</p>	<p>Season (text; selection from dropdown menu) Assessment_parameter (text; selection from dropdown) Min global value (numeric, integer) Max global value (numeric, integer) Best Global value (numeric, integer) Source global value (text; this should clearly describe where the global data estimate comes from -links to webpages or references to publications should be provided in full) <i>Notes on global numbers</i> (text; provide any notes to better explain global numbers used)</p>

Pages in WDKBA Proposal Portal	Purpose	Guidance notes	Data field names and units/format
		<p>If the global data are not provided you can enter values for min, best and max values of survey estimates. If you only have one estimated number then put that in Best and leave min and max empty.</p> <p>Source data need to be sufficiently detailed for global, site, evidence of presence and RU numbers to be able to find the publication/webpage/contact individual during the review process or if subsequently queried.</p> <p>Select the nature of occurrence for the species - multiple options can be selected and are used to apply relevant criteria calculations. Justify why species aggregate, are part of best 5% of habitat, are in one of the top 10 largest aggregations etc. with some detail to allow review.</p>	<p>Year site value (Min and max year if averaged over several years - numeric, integer, year)</p> <p>Min site value (numeric, integer)</p> <p>Max site value (numeric, integer)</p> <p>Best Site value (numeric, integer)</p> <p>Source site value (text; this should clearly describe where the site data estimate comes from -links to webpages or references to publications should be provided in full)</p> <p>Derivation of estimate (dropdown menu)</p> <p>Evidence of Presence (text; provide evidence that the species is present at the site – if based on observation by an expert then name expert with contact e-mail)</p> <p>Year of Presence (numeric integer; give year when species last observed at site)</p> <p>Min no. of Reproductive Units (RUs) (numeric, integer)</p> <p>Define RUs for species (text; provide a text description of what would constitute 10 RUs for the species)</p> <p>Source RU data (text; this should clearly describe where the site data RU estimate comes from -links to webpages or references to publications should be provided in full. If based on expert sightings, then provide the name and email address of the expert.</p> <p>Nature of occurrence (dropdown; select here multiple options needed to apply different criteria)</p> <p>Justification for nature of occurrence (text; describe why you selected the various nature of occurrences. In particular, justify why the species is considered to form aggregations for D1)</p> <p>Source of justification (text; provide source of information used in the justification in sufficient detail that a reviewer can locate it)</p> <p>Additional details site estimate (text; additional notes can be put here to help explain the site estimate provided)</p>
Density or relative abundance of mature individuals	To determine how global and site-level populations are assessed	For assessing B3c, data need to be provided on density of mature individuals OR relative abundance of mature	<p>Density_individuals (numeric, float, individuals per km²)</p> <p>Relative_abundance_individuals (numeric, float)</p>

Pages in WDKBA Proposal Portal	Purpose	Guidance notes	Data field names and units/format
	To support WDKBA functionality To facilitate site review	individuals. See KBA Guidelines section 3.9	
Assessment page: Ecosystem criteria (A2; B4)			
Assessment: Ecosystem data	To provide data to make an assessment of whether an ecosystem meets the threshold to trigger KBA status	Ecosystems need to be assessed at their global extent (may occur transboundary across nations) and the proportion of the ecosystem at a site is estimated. In time the IUCN Red List of Ecosystems will contain data on global ecosystem extent and threat status but for now few ecosystems have been assessed. We will accept proposers' own assessments of extent provided detail is given about how the ecosystems have been mapped.	Ecosystem_name (text) Ecosystem_RL_status (text) Ecosystem_global_extent (numeric, float, km ²) Source_ecosystem_global_extent (text) Ecosystem extent at site (numeric, float, km ² ; Provide for Min, Best and Max if data exist – for single estimate use best) Source ecosystem site extent (text; provide source of both global and site estimates of the ecosystem extent with sufficient detail to allow reviewers to check estimates)
Assessment page: Ecological Integrity and Irreplaceability			
Assessment: Ecological Integrity And Irreplaceability	To provide summary text to identify sites that meet criterion C for ecological integrity or criterion E for irreplaceability.	Both Criterion C and E are based on detailed analyses. Proposers should submit a report to the RFP that describes what they have done to identify sites that meet these criteria. The text put in the WDKBA should provide a concise summary of these reports which will be filed in the database.	Ecoregion name (dropdown – type 6 letters and keep adding letters until you can select the ecoregion name you want) Number_C_sites_ecoregion (numeric; integer; Indicate how many sites are already established) Evidence_intact_ecological_community (text; provide short summary of why this site is an outstanding example of ecological integrity for the ecoregion) Evidence_low_human_impact (text; provide a short summary of the level of human impact at the site) Year of ecological integrity assessment (numeric integer) Irreplaceability assessment report approved (check box when RFP and KBA Secretariat have approved analysis of irreplaceability) Irreplaceability score for site (numeric float) Year of irreplaceability assessment (numeric integer)

Pages in WDKBA Proposal Portal	Purpose	Guidance notes	Data field names and units/format

Table B.3. Supporting information recommended for all KBA proposal for threats and conservation actions.

Pages in WDKBA Proposal Portal	Purpose	Guidance notes	Data field names and units/format
Threats and actions: Actions	Provide a summary of ongoing and required conservation actions for a site	Options exist to list the IUCN standard list of conservation actions - both ongoing actions and those that are estimated as needed in the future	<i>Ongoing conservation actions</i> (dropdown) <i>Conservation actions needed</i> (dropdown)
Threats and actions: Threats	Provide a summary of the threats to a site	Options exist to assign threats to the site using the standard IUCN classification of threats and timing of threats. Multiple threats can be listed for a site and can be used in time to compare threat status across sites, countries and regions.	<i>Level_1_threat</i> (text, from dropdown) <i>Level_2_threat</i> (text, from dropdown, options conditional on previous selection) <i>Level_3_threat</i> (text, from dropdown, options conditional on previous selection) <i>Timing</i> (text, from dropdown)

B.2 Mapping Standards

B.2.1 Why spatial data are required

All KBAs should have both tabular and spatial data. The tabular data, described above, capture information on why a site is important for the persistence of biodiversity; the spatial data capture information on where the site is and its extent. Spatial data are a key component of the KBA process, necessary for assessing sites against the KBA criteria, for analyses such as monitoring protected area coverage and changes in land cover, and for presenting to the world information on where the sites are, so that they can be used to support conservation in as many ways as possible. This section of the document provides an overview of the spatial data KBA stakeholders are required to provide with each proposal, along with relevant formats and standards, with a particular focus on the KBA boundary map. All KBA proposals should include the most accurate depiction of the site's boundaries based on the best available knowledge and data. This is used to generate the maps displayed on the WDKBA. Guidance

on how KBAs should be delineated are given in the *KBA Guidelines* (section 7); this document aims to provide technical advice on how to implement this guidance.

B.2.2 KBA boundaries

The delineation of KBAs is defined by two processes, as explained in the KBA Guidelines. The first process is to produce a map of the local extent of the biodiversity element, or elements, that meet one or more KBA Criteria and for which the site is being proposed. For example, if the site is being proposed as a KBA because it holds an important population of an endangered species (Criterion A1), the first step is to map the distribution of that population within the site. The second step is to refine these 'ecological' boundaries, if necessary, to yield a manageable site (see KBA Guidelines section 7.3). For example, if the population of interest falls within a protected area, it might be desirable to propose the protected area boundary as the KBA boundary. If the population occurs only within one clearly defined habitat such as forest, it might be desirable to delineate the proposed KBA boundary using a map of forest cover, if this yields a manageable unit. If the edge of the population of interest coincides with an obvious feature such as a road, a river or a watershed, it might be desirable to use that as part of the KBA boundary. If the population of interest is known to occur only above a certain altitude on a mountain, contour lines might help to delineate the KBA. Further details on KBA delineation are given in the KBA Guidelines (section 7).

Boundaries for KBAs that capture important freshwater biodiversity, particularly in streams and rivers, can be hard to delineate and map. Species may occur throughout whole catchments, or just in some tributaries. Existing maps of hydro-basins may be useful for delineating KBAs, but hydro-basins mapped at landscape scales contain mostly non-freshwater habitat and so present a poor representation of the trigger species' distributions. Only small-scale units (e.g. HydroBASIN Level 12 basins) should be used for mapping KBAs.

Mapping is the process whereby delineation is formalised in a map of the KBA, in the form of a spatially-referenced polygon.

B.2.3 Site polygon maps

The spatial attributes (e.g. country, latitude and longitude of the site's mid-point) are captured in the tabular data, but the most important spatial component of any KBA proposal is a high-resolution and spatially-referenced polygon, presented in electronic form (ideally as an ESRI shapefile; see below). This should depict the site's boundary in a form that is both accurate (i.e. the polygon is in the right place) and precise (i.e. the edges of the polygon are carefully drawn to capture all the required areas, while minimising areas that do not contribute to the site's importance). The differences between accuracy and precision are illustrated in Fig. 1. Inaccuracy may arise from errors or projection, or where KBA boundaries are based on inaccurate base maps (e.g. an inaccurate protected area boundary). Imprecision may result from inadequate use of base maps while drawing the site, and to mapping being undertaken at too low a spatial resolution (e.g. the zoom level is set too low).

The review of KBA polygon data is made using background satellite imagery by KBA RFPs and at the validation stage of proposal review, and the boundary is cross-referenced with the delineation rationale for the site. Shapefiles should be submitted in the required geographic projection (decimal degrees, WGS 1984), and proposed boundaries should not overlap those of existing KBAs.

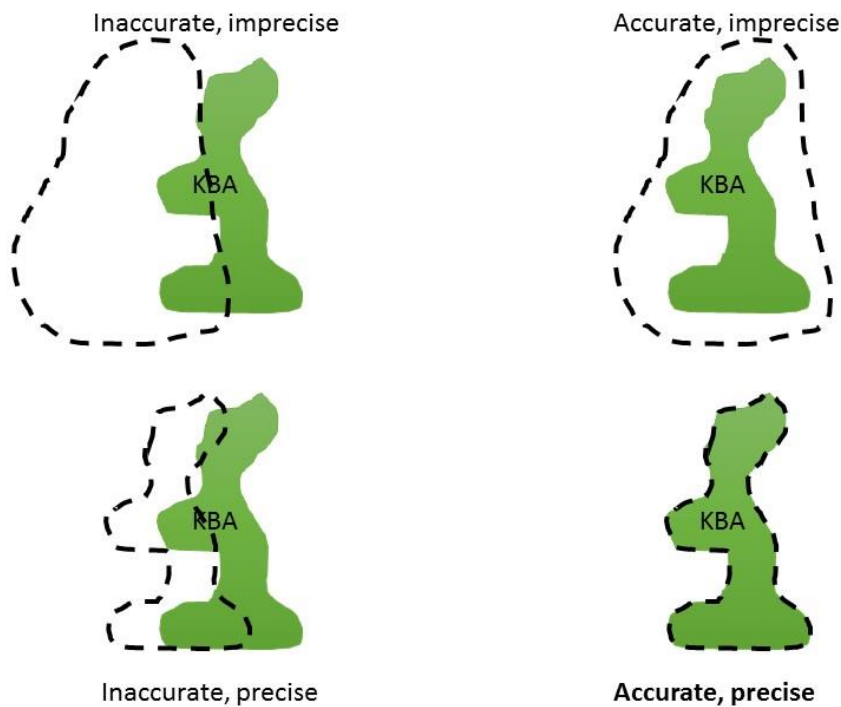


Figure B.1. The concepts of accuracy and precision in drawing the boundaries (shown as dashed lines) of a KBA (shown in green). Proposers should seek to produce boundaries that are both accurate and precise.

B.2.4 File format

KBA boundaries should be submitted as ESRI shapefiles or geodatabases. A shapefile is composed of at least 4 files, with the following extensions: *.shp, *.dbf, *.shx and *.prj; all of these component files should be submitted. Shapefiles can be created in ArcGIS, or in freely-available packages such as QGIS and GRASS. A shapefile or geodatabase template with all recommended attribute fields is provided on the [KBA website](#) and this can be edited to create the polygon shapes and the attribute fields completed in the GIS software used to create the polygons. A [guide](#) is available that helps a KBA proposer to make some of the common calculations needed to identify KBAs as well as delineate sites using the freely available software QGIS.

Users who prefer to map KBAs in Google Earth, or Google My Maps in Google Drive, as .kml files should convert these to shapefiles before submission using free online file converters such as MyGeodata (<https://mygeodata.cloud/converter/kml-to-shp>). Instructions on how to create polygon maps in Google Earth are provided here: <https://www.iucnredlist.org/resources/grid> (note that these instructions are provided for users mapping species distributions, not KBA polygons, but the methods are the same).

In rare cases where a single KBA comprises more than one polygon (see KBA Guidelines section 7.3.4 for information on where this is permissible), a single shapefile containing all polygons should be submitted.

If a proposer is submitting more than one KBA proposal, they should include all KBA polygons in a single shapefile, with each one separated in the attribute table. The attribute table should contain fields that clearly link each polygon to a specific site, using both a unique numeric identifier and the site's international name.

Users who have no access to any form of GIS and who are unable to prepared maps in Google Earth should contact the KBA Secretariat for assistance.

B.2.5 Drawing a KBA polygon

Polygons should be based on the WGS84 geographic coordinate system (Decimal Degrees projection (Latitude, Longitude) and datum WGS84) – called *Geographic Projection–World–WGS84* in ArcGIS 10 and *WGS 84 coordinate Reference (EPSG:4326)* in QGIS. To check the projection of a file in ArcMap go to the file's properties and check the Source tab. If the "Geographic Coordinate System" says <Undefined>, you can use the Define Projection (Data Management) tool. If the "Geographic Coordinate System" is something other than the WGS_1984 projection, you can convert it using the Project tool.

When drawing KBA boundaries in GIS, it is recommended that the zoom level be set to 1:50,000 or higher resolution. It may be helpful to draw a rough outline of the KBA at a lower zoom level and use this to guide the drawing of the final polygon at higher resolution. The use of base layers to guide the drawing of site boundaries is strongly recommended. The recommended base layers for country boundaries, administrative districts and land/sea boundaries can be downloaded free of charge from the GADM 3.6 dataset (<https://gadm.org/data.html>).

Where possible, the boundaries of KBAs should be drawn with reference to the boundaries of protected areas (this does not mean that all KBAs should be protected areas but rather that KBA boundaries should take protected area boundary information into account where relevant or appropriate). Protected area boundaries can be downloaded from: <https://www.protectedplanet.net/> but should be checked for accuracy. Since the protected areas mapped here do not always include all those recognised by each country, it is also worth requesting protected area data from the relevant government authority in the country.

Other useful base layers, such as elevation, bathymetry, lakes, rivers and catchment boundaries, can be downloaded from:

<https://www.iucnredlist.org/resources/spatialtoolsanddata>.

It is strongly recommended that maps are overlaid with satellite imagery (e.g. Google Earth, ESRI base maps, Bing imagery), either during or after preparation, to assess the accuracy and precision of boundaries and to confirm that the boundaries align with the features that are described under the delineation rationale in the proposal. In ArcGIS and QGIS, Bing imagery can be added as a background layer.

Remember that KBA boundaries should not intersect, so it is important to consider the distribution of existing KBAs when drawing a new site boundary. A layer of current KBA boundaries can be requested from <https://www.keybiodiversityareas.org/kba-data/request>.

Particular care should be taken when drawing KBA boundaries at coastal sites or on small islands, since even small mapping errors might result in the inclusion of relatively large areas of ocean in terrestrial sites.

Smoothing a polygon removes sharp angles in the polygon and is used for aesthetic and visual reasons. If this tool is used, please ensure that it does not affect the precision or accuracy of the KBA polygon. Also please consider using “check and repair geometry” features on shapefiles before submitting them as any small breaks will cause problems when importing them into the World Database of KBAs.

Recommended attribute fields have been developed for KBA shapefiles (Table B.4). This provides the data that links the shapefile to the KBA proposal as well as allows the WDKBA to best track the history of the site boundary over time. These are provided in the shapefile templates provided on the KBA Website (see section 2.4 above) but if you develop your own shapefile please ensure these fields are present with the submitted shapefile with the relevant data completed for each site.

The KBA boundary shapefile should be submitted as KBA_[internationalname]_[country]_[version] where ‘international name’ is the same as the name given on the KBA Proposal. KBA element shapefiles should be submitted in the same projection as the KBA boundary shapefile and labelled as: KBAelement_[internationalname]_[name of element]_[country]_[version] - where ‘international name’ is the name given on the KBA Proposal and where ‘name of element’ is the binomial name given for the species on the proposal.

Table B.4. Attributes for proposed KBA polygons

Fields in bold and shaded in green must be completed by the proposer. Fields shaded in yellow must be filled by RPF or KBA Secretariat. Fields that are not coloured can be filled if the data exist or the field is relevant for the site. In time some of these fields will be incorporated in an integrated mapping platform with the WDKBA and will be dropped at that time from the requirements for the KBA polygons.

Field	Field Name	Data Type	Length	Notes
SitRecID	Site Record Identifier	Numeric Long		Only applicable for existing KBAs; assigned automatically in the World Database of KBAs (WDKBA). Available as number on KBA factsheets and url for factsheets on KBA website: http://www.keybiodiversityareas.org/kba-data
TempID	Temporary ID	Text	8	Only applicable for new sites. Use same number and letters as provided in KBA Proposal form if using this rather than the online proposal portal
Country	Country	Text	255	Country - including EEZ (Exclusive Economic Zone). If KBA does not fall in a country use high seas or another geopolitical unit where KBA is located. If there are more than one countries, please add them separated by commas.
NatName	Site national name	Text	255	Unique name for the site, in national language.
IntName	Site International name	Text	255	Unique name for the site, in English
AssessTy	Assessment Type	Text	12	To be established by proposer and revised by RFP. Only values applicable: <ul style="list-style-type: none"> • New KBA – for new sites only. • Revision of boundaries of existing KBA - for existing KBAs only, applies to sites in which the polygon is modified -usually trigger biodiversity elements are also reassessed. • Correction of existing KBA boundaries – special assessment limited to correct precision, accuracy, or geographical issues with polygons.
AssessSt	Assessment Status	Text	12	To be established by RPF or KBA Secretariat. Only values applicable: <ul style="list-style-type: none"> • Initial – 1st proposal, to be discussed between proposer and RFP. • Proposed – formal proposed polygon, to be reviewed. • Nominated – polygon submitted to the KBA secretariat. The KBA Secretariat will determine if the nominated polygon is: <ul style="list-style-type: none"> • Confirmed* • Not accepted *Only confirmed polygons will be incorporated into the WDKBA.
Public	Public site	Text	1	Yes/No

				A site marked as “No” will not be displayed in the global dataset of polygons on the KBA website. Please, only mark as private those sites which can’t be made publicly available due to concerns for the conservation of the trigger species assessed - i.e. real poaching risk of threatened species if the area is disclosed.
GISArea	GIS Area	Double		Area (in km ²) calculated from the polygon using the Cylindrical Equal Area projection and WGS84 datum. At least 3 decimals.
DigScale	Digitization Scale	Numeric Long	10	Digitization scale used to delineate the polygon; ideally 1:50,000 or more. When the polygon utilized is from an official source and the scale is not known, mark it as “unknown”.
DigProj	Digitization Projection	Text	255	Original coordinate system and datum used <u>when digitizing the polygon</u> – this would allow understanding and correcting -if needed- projection issues. Please detail datum and coordinate system. Mark it as “unknown” if the information is not available. When possible, use EPSG codes. Note all polygons to be nominated must be submitted in WGS 84, latitude/longitude – decimal degrees projection (EPSG:4326)
Basemap	Basemap used	Text	255	What basemap was used in the digitization of the polygon. Basemaps vary and it is useful to know this should corrections need to be made.
DigDate	Digitization date	Date	-	Date when the polygon nominated in this assessment was created. If only year is known put the year only
DigBy	Digitized by	Text	255	Name of the person and their institution responsible for the digitization of the polygon.
DelSource	Delimitation source	Text	255	Details on the source of the polygon, if manually created, provided by an official authority, WDPA, the owner of the area, etc.
PAName	Protected Area Name	Text	255	If the polygon proposed follows exactly a protected area, please add the official name of the protected area here.
WDPAID	WDPAID	Double	23	If the polygon proposed follows exactly a protected area from the World Database on Protected Areas, please use the exact ID provided by the WDPA layer here.

Annex C. Guidance on using the Online Proposal Portal

This section gives a guidance to the KBA Proposal Portal that can be accessed through the [KBA website](#). KBA Proposers and KBA National Coordination Groups (NCGs) are requested to make proposals through this portal. A [KBA multisite proposal form](#) also exists, which was used prior to the KBA Proposal Portal being developed. This form can be used to compile the data needed for proposals and identify fields that will be required when making a proposal before submitting the text online in the proposal portal. An imports facility is available within the WDKBA to those undertaking assessments and reassessments for large numbers of site.

C.1. Registering in the World Database of KBAs

Before any proposal can be made a KBA proposer or KBA NCG member needs to register as a user in the World Database of KBAs (WDKBA). Click on the green Login to WDKBA button on the home screen of the KBA website. This will bring up the login window (Figure C.1):

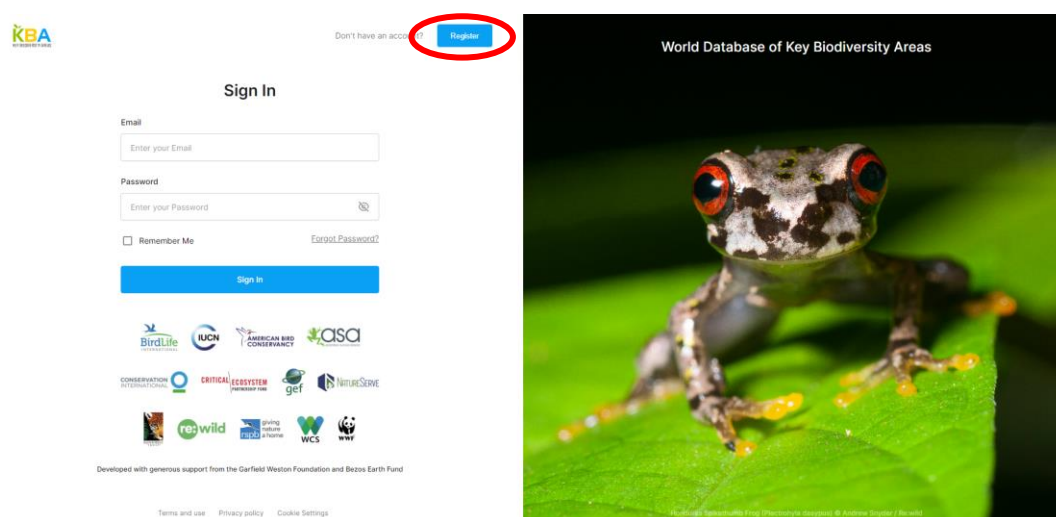


Figure C.1. Login page for World Database of KBAs. Select blue Register button (circled red) in top centre to register in the database.

A new KBA proposer needs to click on the blue Register button at the top centre of the page which brings up the registration page where the User details are recorded (Figure C.2a). These are mostly self-explanatory. *Country* is the country where an individual resides while *Country of interest* is the country where the KBA proposer will identify sites that they are proposing. Multiple countries can be selected for *Country of interest* – and please note that once the country or countries are selected the user must click on the ‘Apply’ button for the selection to be made (Figure C.2b). For most KBA proposers *Role* will be as an *individual*. *National Coordination Group* should only be selected if you have been designated by your KBA NCG to make proposals. **WARNING: Anyone selecting National Coordination Group must be approved**

by the KBA Secretariat before they can perform this role in the WDKBA. The KBA Secretariat will confirm the name of the proposer with the KBA NCG in the country before approving their status. Until approved the proposer can only make proposals as an individual. It is important to review your information and then tick the checkbox for the 'Terms and Use', which allow your data to be stored in the WDKBA.

Registration

First name

Enter your First Name

Last name

Enter your Last Name

Email

Enter your Email

Organisation

Optional

Organisation

Country

Select country

Role

Select Role

Country of interest ⓘ

Select multiple options

KBA Partner ⓘ

Optional

Select multiple options

Password

Enter your Password

12 to 64 alphanumeric characters, must contain special symbols, capital and lower letters

Confirm password

Confirm your Password

☐ I agree to [Terms and Use](#)

Create Account

Figure C.2a. Registration page in WDKBA.

Country of interest ⓘ

Algeria

☐ Select All

☐ Afghanistan

☐ Åland Islands (to Finland)

☐ Albania

☒ Algeria

☐ American Samoa

1 selected

Cancel

Apply

KBA Partner ⓘ

Optional

Select multiple options

Confirm password

Confirm your Password

Create Account

Figure C.2b. Registration page in WDKBA – note the 'Apply' button must be clicked in the multi-option selections (e.g. Country of interest and KBA Partner fields).

Once Registered a KBA Proposer can login to the WDKBA. A KBA NCG representative will need to wait for approval by the KBA Secretariat before they can login as an NCG representative but they will be able to continue as an individual.

C.2. Logging into WDKBA - overview

Logging in will bring the user to the home page of the WDKBA (Figure C.3):

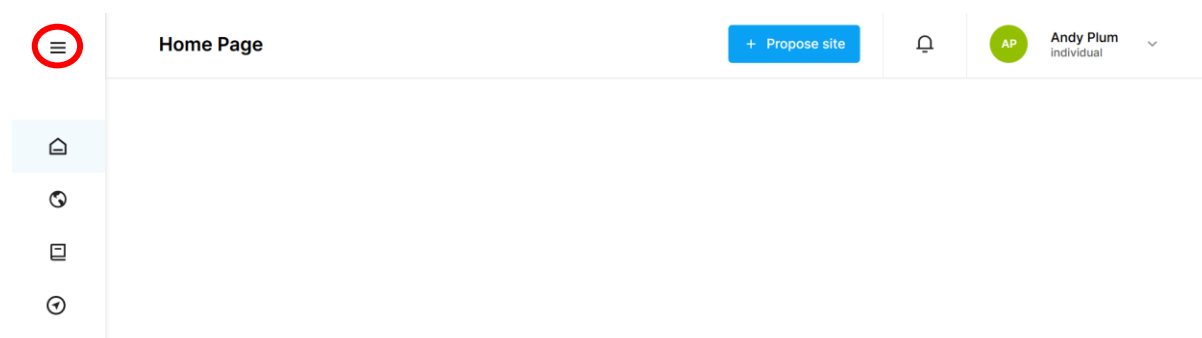


Figure C.3. Home page when logged in as an individual in WDKBA. Clicking on the three lines at top left (circled in red) will open the left window to reveal names associated with the four icons – from top: Home; Sites; Reports; Monitoring.

At the top is a button to start proposing a site (blue), a notification ‘bell’ which indicates if you have any messages (e.g. once a review process has started, or if you have been approved NCG status) and a green circle with your registration initials, registration status, and a pull-down menu for your registration details (which you can review and edit at any time). This is also where you can delete your account in the database (although please note you cannot delete your profile if you are associated with any of the assessments in the WDKBA).

C.2.1 Sites page

Selecting the globe icon on the left brings you to the Sites page (Figure C.4). Here you can view all sites in the WDKBA, the country, site name in alphabetical order, site ID, year and proposer of the last assessment of the site, status of the site (confirmed, superseded and delisted), and the criteria triggered.

Country	Site name	Site ID	Year	Proposer	Status	Criteria	Actions
TON	'Ata Island	24509	2012	Secretariat Kba	Confirmed	-	
CHE	'Grosses Moos' plain and Niederried reservoir	3275	2000	Secretariat Kba	Confirmed	-	
DEU	'Hinter der Morkaute' nature reserve, Dietersheim	9355	2002	Secretariat Kba	Confirmed	-	
NER	'W' National Park	6719	2001	Secretariat Kba	Confirmed	-	
ECU	1 km west of Loja	29713	2018	Secretariat Kba	Confirmed	-	
ARG	14 km west of Saladas	29896	2018	Secretariat Kba	Confirmed	-	
PER	17 km southeast of Aucayacu	29752	2018	Secretariat Kba	Confirmed	-	

Figure C.4. The Sites page of the WDKBA

If you want a sub-list of sites you have been involved in proposing or editing, then click on *My sites*, which is at the top centre of the screen. If you are a proposer for the KBA NCG then you will see all sites within your country when you select this option. Similarly, KBA Regional Focal Points will also be able to view all sites in their region.

On the far right of the sites table on the page is an *Actions* button (if you cannot see this on your screen then use 'CTRL –' to make the page smaller on the screen). Clicking on the vertical ellipsis brings up a menu to either *View site* or *Assess biodiversity*. *View Site* allows a user to view the details of the site, including the KBA trigger element details and all other relevant fields for the KBA, while the *Assess biodiversity* initiates a reassessment. **WARNING: Selecting *Assess biodiversity* starts a process of re-assessment for the site. If you select this option, you need to complete the re-assessment and propose it for review. Otherwise, it remains as a draft re-assessment and no other user can access the details of the site until you have proposed it (unless they are invited to participate in the assessment as a co-proposer). Therefore, ONLY select this option when you are making a re-assessment of the site. If you have inadvertently selected *Assess biodiversity*, you can choose to delete the draft at any stage from the assessment window, or from *My sites* in the sites management screen.**

C.2.2. Reports Page

The reports page (Figure C.5) allows a user to make queries of the WDKBA data by using filters to obtain a subset of the data. Users will only be able to access the sites that they are associated with: Individuals will be able to view and output reports relating to their sites; NCGs will be able to view and output reports relating to all sites in their country; and RFPs will be able to view and output reports relating to all sites in their region. The link to the filter options is on the right side of the screen (in blue).

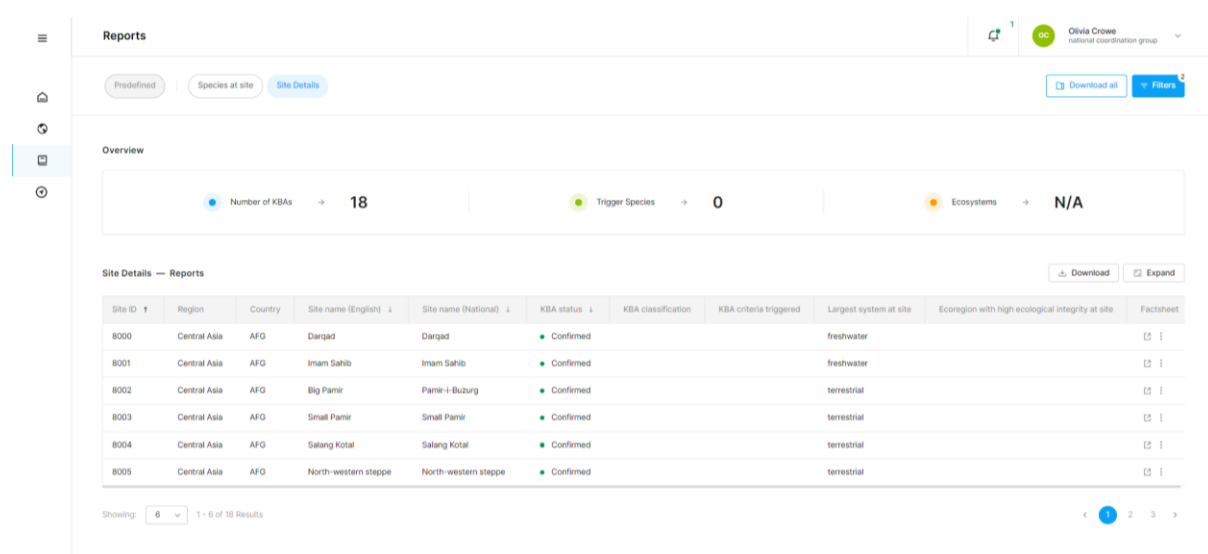


Figure C.5. Reports Page

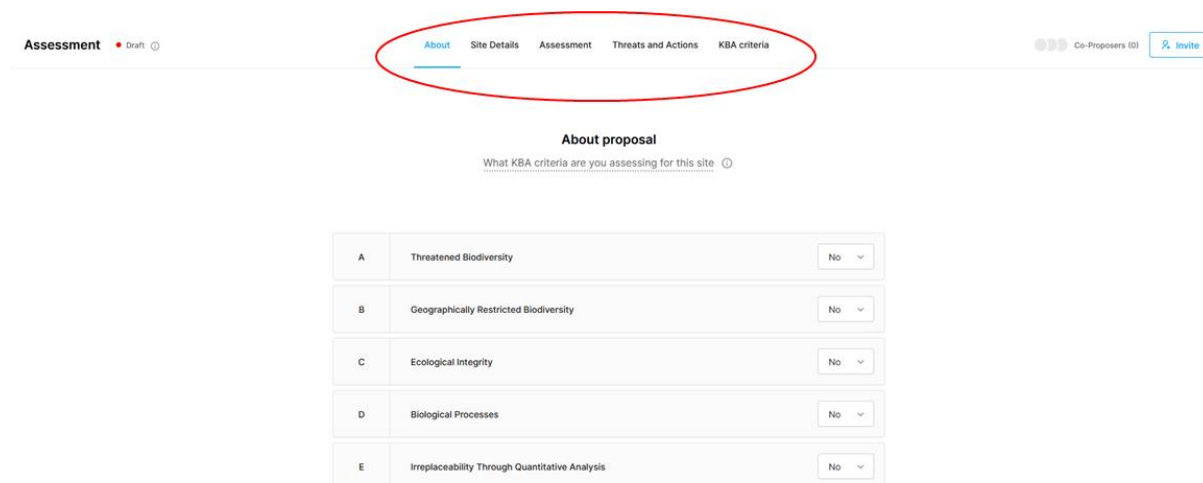
A user can filter by fields relevant to 1. Sites; 2. Species; 3. Ecosystems and 4. Ecological integrity.

C.2.3. Monitoring

This part of the WDKBA is still under development and will likely be available at the end of 2023.

C.3. Proposing a new KBA

At the top of the home page and sites page is a blue button to + *Propose site*. Clicking this button will open the KBA Assessment Section which has five tabs that can be selected at the top of the page: 1. About; 2. Site details; 3. Assessment; 4. Threats and Actions; and 5; KBA Criteria (Figure C.6). Data entered in any field are automatically saved so that there is no need to consciously save the work as you progress. Mandatory fields (see Annex B) are indicated as such and recommended fields as 'Optional' in these pages.



About proposal		
What KBA criteria are you assessing for this site		
A	Threatened Biodiversity	No
B	Geographically Restricted Biodiversity	No
C	Ecological Integrity	No
D	Biological Processes	No
E	Irreplaceability Through Quantitative Analysis	No

Figure C.6. KBA assessment sections showing the location of the tabs for the 5 pages.

C.3.1. About Proposal page

The *About Proposal* page captures information about which criteria have been applied at the site and what consultation have taken place (Figure C.7). This page is also where KBA proposers can suggest independent reviewers who could review the proposal.

At the top of the page the KBA Proposer should select which of the criteria they have applied at the site. Sometimes, sufficient data are not available to apply all of the criteria and it is useful to know what criteria have been applied, especially should others want to add to the site in future. This is where this information is captured.

Under *Consultation*, we want to know which scientific experts (biological data holders) have been involved in the proposal (names, taxonomic group and contact e-mails) and also which

‘other stakeholders’ have been involved. These other stakeholders could include previous proposers, government representatives and customary rights holders. If there has been a workshop where proposed KBAs have been shown and discussed in the country, the details about the workshop (e.g., location, number of people involved, main institutions present) can be recorded under the *Stakeholders* field. Any engagement with indigenous peoples and local communities in the proposal development and the method of engagement should be recorded here.

In the *Reviewers* field please put in names and e-mail contacts of anyone who would be suitable for an independent review of the proposal.

About proposal

What KBA criteria are you assessing for this site

A

Threatened Biodiversity

Yes

Subcriteria

Select multiple options

B

Geographically Restricted Biodiversity

No

C

Ecological Integrity

No

D

Biological Processes

No

E

Irreplaceability Through Quantitative Analysis

No

Consultation

Academic, scientific and expert consultation

Stakeholders

Consultation with other stakeholders

Reviewers

Optional

Provide reviewers info who can comment on your proposal (Name, Contact details)

Figure C.7. About Proposal page

C.3.2. Site Details page

The *Site details* page (Figure C.8) is where all information about the site is recorded. Much of this text will be used to populate factsheets for each site that are available on the KBA Website and should be written with a general audience in mind.

Name & Location
Name & Location section Short Description

Site ID ⓘ
200005

Site name (National) ⓘ
Budongo Forest Reserve

Site name (International) ⓘ
Budongo Forest Reserve

Country ⓘ
Select multiple options

State / Province ⓘ
Optional
Enter state or province

Site Details
Site Details section Short Description

Site description ⓘ
Enter detailed site description

Site area ⓘ
Optional
Enter site area (square km)

Latitude ⓘ
Optional
Enter latitude of centroid

Longitude ⓘ
Optional

Lowest elevation ⓘ
Optional

Figure C.8. Top of the *Site details* page

The page is broken up into several sections which are described in turn here:

1. *Name & Location*: Here a site ID number (SitRecID) is automatically generated by the WDKBA when a new site is created. The Site name (National) can be a local name in any script (Arabic, Cyrillic, etc) while Site name (International) should be an English name in Roman script. Note: Site name (International) is the name that will be used on the Sites pages (see above). Country is selected here using a pull-down list. If a site is a transboundary KBA then more than one country should be selected for the site.
2. *Site Details*: Here a *Site description* is requested which is text that will be used for the KBA factsheet for the site. Good descriptions set the location of the site within the country, some description of the main habitats/ecosystems and important features of the site (e.g. named mountains, rivers, lakes etc) as well as an altitude range (see Box C.1. for a good example). Following this is a request for information on altitude (m above sea level) or bathymetry (m below sea level for marine sites); and the systems present at the site (terrestrial, freshwater, marine and subterranean).

Box C.1. Example of good text for *Site description*

The KBA at Inago Mountain covers an area of 331 km². Inago Mountain is in Malema District, which is in the western section of Nampula Province, northern Mozambique. The geology of Mt Inago, which is mainly granite-porphyrite, is compared to the Namuli massif due to their close proximity. According to Timberlake *et al.* (2009) granite-porphyrite encroached the migmatites of the Nampula and Namarroi series of about 1100 – 850 million years of formation. The Inago massif elevation ranges from 300–1870 m, with the main peak reaching 1804 m altitude. Rainfall in the Malema District shows an average of 1300 mm per annum. The major vegetation surrounding the mountain is the miombo woodland particularly at the base up to 1,000 m. From 1,000 to about 1,600 m of altitude, the vegetation is mainly forest and the stream valleys are covered by riverine forest. Grasslands together with rocky shrublands are also found over 1,500 meters of altitude.

The *Rationale (KBA identification)* for the site being a KBA is then requested. This again will be text provided on the KBA fact sheet. It should mention the key trigger elements found at the site and why they trigger KBA status (see box C.2). If the number of trigger elements exceeds 10 then it is probably better to list groups of species that trigger KBA status and not the names of the species. For example; *KBA x contains 3 mammals, 2 birds, and a Cycad that trigger criterion A1 as well as two insects and three other higher plants that trigger criterion B1.* Where the KBA is triggered for a seasonal part of a species range that should be mentioned. For example; *The Atlantic puffin (Fratercula arctica) triggers criterion D1 at island y because at least x% of the global population come to breed here each year between April and July.*

Biodiversity values and *Site values* are then requested. These are recommended (rather than required fields). In *Biodiversity values* KBA proposers can list additional species that may have cultural or tourism importance for the site but not have sufficient numbers to be trigger elements. It can also include potential trigger elements which do not have sufficient data yet. In *Site values* KBA proposers should include text on whether the site is part of the lands of an indigenous people or subject to customary rights. It may also include cultural values of the site that are independent of its KBA status, or it may include additional designations (such as World Heritage status or Ramsar Site status).

Box C.2. Example of good text for *Rationale (KBA identification)*

Inago Mountain forms part of the sky island conservation corridors of northern Mozambique together with Chipirone, Namuli, Ribauè-Mpalue and Mabu (Tolley, 2017; Bittencourt-Silva *et al.*, 2016). Inago Mountain is home to several geographically restricted and threatened species of plants and animals of which seven species trigger KBA status. The Critically Endangered (CR) Inago Pygmy Chameleon *Rhampholeon bruessoworum*, triggers criterion A1a and A1e (AZE status) while two other reptiles (*Lygodactylus inago* and *Nadziakambia inago*) trigger criterion B1. In addition, there is one Endangered (EN) amphibian (*Nothophryne inagoensis*) that triggers criterion A1a and A1e (AZE status), and three species of insect (*Cymothoe baylissi*, *Alaena lamborni* and *Neococenyra bioculata*) that trigger criterion B1. Several of these species are currently being assessed for the IUCN Red List of Threatened Species. The three reptiles are all range restricted species and together trigger criterion B2.

3. *Manageability and Delineation*: In this section text describing how the site is currently or potentially manageable should be written to justify that the site is manageable. KBAs are designed to be sites that are ecologically relevant but also practical for management. The text here should describe how the site is currently managed. For

example, if it is an existing protected area; *The Queen Elizabeth National Park, is managed by the Uganda Wildlife Authority, a parastatal that manages all of Uganda's national parks and wildlife reserves.* If the site includes multiple land owners, then each should be listed and they might work together to achieve the conservation of the trigger element should be described.

Box C.3. Example of good text for *Manageability*

The Kabobo Provincial Reserve is managed by the traditional chiefs of the villages around the Reserve in collaboration with the Institut Congolais pour la Conservation de la Nature (ICCN). A Public-Private partnership has been given to the International NGO, Wildlife Conservation Society, to manage the site with ICCN and the local community.

If a site supersedes one or more other KBAs then a description should be given of the changes made and which sites have been superseded in the field *Superseded sites*. For example; *The KBAs, A & B have been amalgamated into this one KBA because a reserve was established that encompassed both sites together with land to the north west of the sites. Given the management of the Reserve was by X it was decided to create one KBA with the same boundaries as the Reserve.*

Delineation rationale should describe where the boundaries have been established for the site and why. This description should be sufficiently detailed that it can help check the mapping of the shapefile with background satellite imagery as well as provide a justification for safeguarding the site should the boundary be challenged in the future.

Box C.4. Example of good text for *Delineation*

The Kabobo Reserve KBA follows the boundary of both the Kabobo Reserve in Katanga province, DRC as well as the boundary of the Ngandja Reserve in South Kivu Province. The boundary was delineated through consultation with the local communities and indigenous peoples living around the site. Along the shore of Lake Tanganyika it primarily follows the lake shore but has some extensions into the lake to conserve spawning sites for fish. On the western side it primarily follows the road linking Kalemie to Fizi except where villages are sited where the boundary follows agreed borders of the village including areas of potential agriculture expansion. In the south it follows the boundary between the forest and Miombo woodland habitat and in the north it follows the boundaries of natural habitat including the Elombwe wetland.

4. *Protected or Conserved areas:* If a site is covered partially or wholly by a protected area or OECM it should be noted here. Coverage in 10% intervals is required but if you have an exact calculation this can be also entered. Selecting one of the percentage intervals opens a box which allows a proposer to enter the name(s) of the protected area(s) covering the KBA.
5. *Habitats and Land use: Habitats description* - here a brief description of the main habitats found at the site should be entered with approximate proportions of coverage of the site by each habitat. *For example; The Itombwe Reserve KBA is dominated by montane forest (~75%) together with areas of bamboo (Sinarundinaria – ~10%) and montane grassland (~15%). Land Use* should have a brief summary of the main land use that occurs at the site and the land owners. *For example; The Atewa Range Forest Reserve KBA is primarily a forest reserve managed by the Ghana Forestry Department. A few small-scale farms have been admitted within the Atewa Range Forest Reserve boundary.*
6. *Pressures:* In this section a summary description of the main threats to the site should be provided. Detailed threats are also listed on the *Threats and Actions* page so this should be a short description that can be used on the KBA fact sheet or elsewhere. *For example; The Queen Elizabeth National Park KBA is threatened by various types of resources extraction: Cobalt mining outside the park in the north has led to heavy metal pollution affecting the vegetation; mining for lime is ongoing in the north east of the park in a 1 km² concession; although some extraction is licenced, local communities also enter the park illegally to extract firewood and grass for thatch and fell trees for timber. Hunting of wildlife also takes place, mostly for local consumption but some for trade and for trophies (eg. Ivory and lion parts). Large carnivores are threatened by poisoning in retaliation for attacking livestock which are brought into the park illegally. A hydroelectric dam in the north-east has also affected the only population of the cycad, Encephalartos whitelockii, that is one of the KBA triggers for the site.*
7. *Additional details:* This section is available for any additional notes that may help explain to the KBA RFP and any reviewer some of the text that is provided on this page. A field to put in the citations for any references mentioned in the text is also provided here.

C.3.3. Assessment page

The Assessment page (Figure C.9) is where the key data used to assess whether a KBA element triggers any of the KBA criteria are provided. Separate sections on the page are provided for 1. Species (Criteria A1, B1-B3, D1-D3); 2. Ecosystems (Criteria A2 and B4); 3. Sites of Ecological Integrity (Criterion C) and 4. Irreplaceable sites (Criterion E).

Species
Details for species assessed at the site ⓘ

Search by Scientific name... ✓ Add species

Ecosystem Data
Details for ecosystems assessed at the site ⓘ

Ecosystem name ⓘ
Enter Ecosystem name

IUCN Red List of Ecosystems category ⓘ
Select Ecosystem category

Global extent (km2) ⓘ
Enter minimum extent at site

Minimum extent at site ⓘ
Enter minimum extent at site

Best estimate of extent at site ⓘ
Enter best estimate of extent at site

Maximum extent at site ⓘ
Maximum extent at site

Year of ecosystem data ⓘ
Provide year(s) of evidence (e.g. 2018-2020)

Figure C.9. Top of the *Assessment* page

1. *Species*: In this section multiple species can be listed by name and their values for the global and site assessment parameters provided. Start by typing in part of the scientific name of the species you want to assess. This will generate a short list of species names (up to 6 options) as you type more of the name you will eventually find your species. The underlying list of names used here is the SIS list used for the IUCN Red List of Threatened species which includes many more species than those assessed for their threat status. If the name of your species of interest is not on the list, please contact the KBA Secretariat (info@keybiodiversityareas.org) as it will need to be checked that it is a recognised species and added to the SIS list before it can be proposed as KBA trigger element.

Once a species is selected a new window opens with two main sections; *Species* and *Assessment*. In both sections many fields will be pre-populated from the SIS list. The fields listed under *Species* will be pre-populated from the SIS and other KBA-related analyses. Fields in this section that are pre-populated include common name, taxonomic group (used to apply the criteria B2/ B3), Global IUCN Red List category and criteria, whether it is possibly extinct, the range restriction and eco/bioregion restriction status, and also the assessment system as the IUCN Red List. These fields are not editable, with the exception of a species that does not have a Global IUCN Red

List assessment. If a species is on SIS but not assessed for its threat status it may be assessed under a different but widely used system such as G-Ranks used across North America. In such cases, the IUCN Red List category field is editable and the Proposer may indicate an equivalent IUCN Red List Category, and must provide further details about the assessment system.

Scientific name		Common name	Optional
<input type="text" value="Gorilla beringei"/>	<input type="checkbox"/>	<input type="text" value="Eastern Gorilla"/>	
Taxonomic group	Optional	IUCN Red List category ⓘ	
<input type="text" value="Mammalia"/>		<input type="text" value="CR"/>	
Possibly Extinct	Optional	Assessment system ⓘ	
<input type="text" value="No"/>		<input type="text" value="IUCN Global Red List"/>	
IUCN Red List criteria	Optional	Range-restricted ⓘ	Optional
<input type="text" value="A4bcd"/>		<input type="text" value="No"/>	
Ecoregion/Bioregion-restricted ⓘ			
<input type="text" value="No"/>			

Figure C.10. Example of species section pre-populated for Eastern gorilla (*Gorilla beringei*). Note that the pre-populated fields are light grey, while the editable fields are white.

In the *Assessment* section the season that the site is important for the trigger species should be selected. If a species is present year-round then Resident is the default option and the user may select an alternative if applicable (breeding, non-breeding or migratory (stop over sites)) for species that migrate (See section 2.2.3 of Guidelines). The assessment parameter you are applying should also be selected. Once selected some global fields may be pre-populated if data exist in SIS such as for Mature Individuals or Range area.

If you want to apply additional assessment parameters to the same species you need to complete one and then click on *New parameter* option at the bottom of the species assessment page. However, it is recommended that you provide a single parameter that best reflects the occurrence of the species at that site.

Global data: Here there are options to provide the min, best and max values for the global values of an assessment parameter. If you only have one value (eg. the global range area from the IUCN Red List range polygon) then you only put this in the 'Best' field and leave 'Min' and 'Max' blank. Give the *source* of the data including full references to publications and DOI/URL links to relevant web pages to help find the data. *Additional details* should be used to provide notes to help the reviewer and KBA RFP understand the values you have provided – this will be needed in particular if you are changing the estimate from the Red List account. If better quality of global estimates exists (e.g., more up-to-date or one derived from improved methods) than the pre-populated numbers, you can enter the alternative values. However, you will need to justify the use of the alternative values in the source field by citing relevant publications that describe the need for a change in the global estimate and the reasons you consider the alternative values to be more appropriate

Site data: This section requests the min and max year that estimates (counts of mature individuals) are obtained from. If the values are based on multiple population surveys, then the year of the earliest survey and the most recent survey should be entered in the min and max year fields, respectively. Otherwise, if the values were estimated just once, then the same year should be entered in both fields. Min, Best and Max values of the assessment parameter can be entered. Again, only put in the 'Best' value for single value estimates (such as area-based assessment parameters) if you don't have confidence intervals. If you have the 95% lower and upper intervals of the estimate, use those for min and max values. Again, source of the values for the site should list any publications in full and include DOI/web page to help reviewers access the information. The *Derivation of estimate* has a pull-down menu of options to select the most appropriate one for the data provided. *Evidence of presence* is a field where you include the evidence that the species is present in the KBA. This may be based on counts or regular sightings by visitors. It may be a particular expert who has visited the site, in which case give the name and e-mail contact of the person. We also want to know the most recent *Year (presence)* when the species was seen at the site. As well as confirmation of *presence*, we also need to know the estimates of the *Minimum number of Reproductive Units (RUs)* at the site. A number should be given here together with the definition of 10 RUs in the adjacent field, *Define RUs for this species*. We ask this to be sure that the RUs are being identified correctly for a species. The source of the RU data should, again, give full references and links to any website pages. If based on a visit by an expert, then reference the individual by name and provide their e-mail contacts.

Nature of occurrence is where a KBA proposer selects how the species occurs at the site which in turn will determine which criteria are applied to the species. Multiple options can be selected. A *Justification* is requested for the selection here which should include the following:

- Site regularly holds trigger in one or more life cycle stages (A1, B1) –justify that the species is regularly present (which can be during a particular season)
- Species is regularly occurring and range restricted (B2) – justify that the species is regularly present and range restricted .
- Site regularly holds trigger in one or more life cycle stages and is eco/bioregion restricted (B3a, B3b) - justify regular occurrence and eco/bioregion status (including name of eco/bioregion it is restricted to)
- Site part of the globally most important 5% of occupied habitat for the species (B3c) – justify that the site is part of the most important 5% of habitat
- Site predictably holds an aggregation in one or more life cycle stages (D1a) – justify that the species is aggregated where it occurs (defined as two or more orders of magnitude larger than species average numbers or density in the KBA Standard – see also section 2.8.1 in KBA Guidelines).
- Site predictably holds one of the 10 largest aggregations of the species (D1b) – this can only be applied if D1a cannot and justification is needed for the site being one of the 10 largest aggregations
- Site supports $\geq 10\%$ of the global population as a refugium during times of environmental stress (D2) – justify why the site is a refugium and from what threat.
- Site predictably acts as a recruitment source maintaining $\geq 10\%$ of the global population of the species (D3) - justify how the site is a source of recruitment for the species and that it maintains $\geq 10\%$ of the global population.

In the *Source* field put in any publications or website pages that support the justifications you have given.

Finally, there is an *Additional details (site estimates)* field where a proposer can put additional notes to help the KBA RFP and reviewers assess the site assessment details given.

Once the data for that species have been fully compiled and entered, the blue *Finish Editing* button (top right) should be clicked which returns you to the Assessment page where that species is now listed. Additional species can be added by typing in their names in the *Species search* field and completing the fields described above for each in turn. At any stage prior to the proposal of the assessment you can return to edit any of the details provided for any of your selected species or add more species to the assessment.

2. *Ecosystem data*: Data about ecosystem extent for the global and site estimates are entered here to apply criteria A2 and B4. The *ecosystem name* should be given together with the *IUCN Red list of ecosystems category* if it has been assessed. The *global extent* in square kilometres should be entered as well as the Min, Best and Max of the site extent. Again, if there is only one area estimate then put this in the 'Best' field and leave Min

and Max blank. It is expected that most ecosystem assessments will only have one measure of area and hence only a 'Best' value. The *Year* that the area estimate was made at the site should be given – if based on imagery then use the year that the images were taken. In the *Source* field put the details of how the areas were calculated and, if published, reference the publications with DOI/URLs for any web pages.

3. *Ecological Integrity*: Any assessment of ecological integrity for a site (Criterion C) will require a more detailed report to be submitted about why the proposer believes the site to be ecologically intact and with minimal human impact (See section 5 of KBA Guidelines). Here on the user interface a summary is required that can be used in KBA fact sheets. First, the *ecoregion name* is selected by typing in some of the first letters of the name to generate a short list of options. Then the number of existing Criterion C sites for that ecoregion should be entered in *Ecoregion site*. A summary description of the *Evidence for intact ecological communities* and the *Evidence for low human impact* should be written in a way that the summaries can be used on the site fact sheet. The details of both these will be provided in a separate report that is submitted with the proposal. Finally, the *Year of the assessment of ecological integrity* should be provided.
4. *Irreplaceability*: Any assessment of Irreplaceability for a site (Criterion E) will require a more detailed report describing the analysis made to calculate irreplaceability. This should be submitted first for review to the KBA RFP for your region and then nominated to the KBA Secretariat. Once this has been completed the confirmation box for *Irreplaceability assessment approved* can be checked and the value for *Irreplaceability score* and *Assessment date* provided.

C.3.4. Threats and Actions page

On this page (Figure C.11) the conservation actions that are being implemented at a site together with those that are needed can be selected from the [IUCN list of conservation actions](#). Multiple actions can be selected by checking the different options.

Action

What Actions are you assessing for this site ⓘ

A

Ongoing conservation Actions at site

Yes ▾

Subcriteria

1.2 Resource & habitat protection, +1 ▾

B

Conservation actions needed at site

No ▾

Figure C.11. The actions section of the Threats and Actions page with example actions selected.

Threats can also be selected (Figure C.12) using the standard [IUCN classification of threats](#). This is a hierarchical list. If a threat selected has sub-categories then these will be made available for selection also. The timing of the threat should also be selected from the available menu.

Choose Threats

What Threats are you assessing for this site ⓘ

● Intentional use (species being assessed is the target)

Expand ^

🗑

Level one ⓘ

Biological resource use ▾

Level two

Hunting & collecting terrestrial animals ▾

Level three

Intentional use (species being assessed is the target) ▾

Timing ⓘ

Ongoing ▾

Figure C.12. The threats section of the Threats and Actions page with example of a threat with three levels selected.

61

C.3.5. KBA Criteria page

This page gives the results of the calculation of the criteria met for the different trigger elements based on the information provided in the assessment page when the proposal is finished and ready for submitting. If you think that any criteria expected have not been triggered in the calculator, please carefully check through the respective accounts to make sure all of the required details or fields have been supplied. E.g., for species assessments, A1 will ONLY apply if all following conditions are met: the threshold was met, sufficient reproductive units were supplied; evidence of presence was described; and the relevant category in the Nature of occurrence dropdown was selected.

Species
Species triggering KBA criteria

Taxon group	Season	Scientific name	Common name	Red List Cat.	RUs (Min)	% in site	KBA criteria
Aves	Breeding	<i>Thalassarche melanophris</i>	Black-browed albatross	LC	7116	15.46%	B1, D1a
Aves	Breeding	<i>Eudyptes chrysocome</i>	Southern rockhopper penguin	VU	10577	8.46%	A1b, A1d, D1a

Figure C.13. Example of species criteria triggered for a site.

C.3.6. Inviting co-proposers

At the top right of the home page and assessment pages is an *Invite* button which allows a KBA proposer to invite other people who are registered in the WDKBA (as individuals or KBA NCG members) to contribute to the proposal. This enables multiple people to work on a site proposal. For example, you may have experts in different taxonomic groups who need to work together to propose different species for the same site. Alternatively, you may have someone who knows the site well and can provide the details about the site while the taxonomic experts focus on providing the species and ecosystem details. Once you have the email addresses of co-proposers, contact them to make sure that they are registered in the WDKBA. Once you get the confirmation that they have registered, you can enter their e-mail addresses separated by a comma (,) in the *Invite Co-Proposers* field (Figure C.14). Please note: the entered e-mail will become highlighted if the person is already registered and the invitation can be sent to them; if the person is not registered in the WDKBA, they cannot be invited to join the proposal. When you send them the invite, they will receive a message in the WDKBA (which will be flagged on the notification bell icon when they login); they will need to accept to join the proposal. **NOTE: You must at least enter a site name (International name) before inviting someone to join your proposal.**

Figure C.14. Invitation of co-proposers page. If the International site name has not already been entered on the *Site details* page then a field for Site name will appear here but ideally some of the basic details of the site will be populated before someone is invited to work on the proposal.

C.3.7. Proposing the site

Finally, when everything is completed on each of the four pages (About, Site details, Assessment, and Threats and Actions), the blue ‘*Propose assessment*’ button should be clicked to propose your assessment. If all of the details have been supplied, then this action will send the proposal with a notification to the KBA RFP of that country and they can start the review process for the site. If some details are missing when you try to propose the site, then you will be notified what sections of the assessment section are lacking data. You will be able to find these fields marked in red. You will need to complete all required details before submitting a proposal. Please note: the proposal can be edited or deleted only prior to the site being proposed. Once proposed, a KBA proposer cannot edit the proposal further until the KBA RFP has responded with their review of the site, so only select this option when you are happy for the site to be formally proposed.

C.4. Re-assessment of existing KBAs

To re-assess an existing KBA or to add additional trigger elements to an existing KBA you will need to first find the site. Access the *Sites* page from the *Home page* (Section C.2.1) and then select the country in which the site occurs to find a short list of sites to choose from for that country. Select the site you want to re-assess and click on the vertical 3 dots on the far right. This opens a window that allows you to *View sites* (i.e., check existing information on the site) or to *Assess biodiversity* (i.e., make a re-assessment of the site) (Figure C.15). **WARNING:** *Selecting Assess biodiversity makes the site un-editable by anyone else until you Propose assessment which sends the re-assessed site on to the RFP for review, or Delete draft which*

deletes all changes made and reverts the assessment to the original. Therefore, only select *Assess biodiversity* when you are ready to make a re-assessment of the site and plan to complete it soon.

Country	Site name (English) ↑	Site ID	Year ↓	Proposer ↓	Status ↓	Criteria	Actions
TON	'Ata Island	24509	2012	Kba Secretariat	● Confirmed	-	📄 ⋮
CHE	'Grosses Moos' plain and Niederried reservoir	3275	2000	Kba Secretariat	● Confirmed	-	⋮
DEU	'Hinter der Mortkaute' nature reserve, Dietersheim	9355	2002	Kba Secretariat	● Confirmed	-	🔍 View site 🔄 Assess biodiversity
NER	'W' National Park	6719	2001	Kba Secretariat	● Confirmed	-	
ECU	1 km west of Loja	29713	2018	Kba Secretariat	● Confirmed	-	📄 ⋮
ARG	14 km west of Saladas	29696	2018	Kba Secretariat	● Confirmed	-	⋮
PER	17 km southeast of Aucayacu	29752	2018	Kba Secretariat	● Confirmed	-	⋮

Figure C.15. Sites page with the options to *View* or *Assess biodiversity* selected for a site.

Selecting *Assess biodiversity* will bring up the same Assessment pages as described in section C.3 except that in this case the original data will be populated in the fields. You can update the About, Site details, Assessment, and Threats and Actions pages, replacing existing data or adding new trigger elements with their associated data. Please note that if you add trigger elements there may be additional threats or conservation actions to list for the site that affect those elements.

NOTE: If you add trigger elements or revise data in the re-assessment please check and update text fields in the Site details page, particularly the *Rationale (KBA identification)* as well as *Manageability* and *Delineation*, particularly if any changes to the KBA boundary have been made after consultation with the original proposer.

C.5. Review comments

When *Propose Assessment* is selected and all fields are correctly filled then the proposal will be sent to the KBA Regional Focal Point (RFP) for that region of the world. They will review the proposal, sometimes engaging additional experts for some of the species, and provide comments. When the RFP has submitted their comments, the proposer will then see their proposed site back in their 'My sites' list as a *Draft* and with a notification bell message that the comments have been provided (Figure C.16). Alternatively, if the RFP is happy with the proposal and has no further comments they will approve the assessment, at which point you will be notified that you may nominate your assessment.

Sites Management		Total sites 16642	My sites (2) <input type="checkbox"/>	Import data	Propose site	🔔 ³	AP Andy Plumtre individual
Country	Year	Assessment					
RWA	Cyam	200097	2022	Plumtre Andy	● Under assessment	● Draft	- ⋮

Figure C.16. When a reviewed site is returned, it appears as a Draft in the *My sites* list and the notification bell will be flagged with a message stating comments have been made by the RFP

If the RFP returns feedback and the site is returned to *Draft*, you can access your assessment information and the comments by once again selecting the 3 dots on the far right under *Actions* and this time selecting *Edit* to open the proposal and view the RFP's comments. At the bottom of the screen is a button for *Comments* (Figure C.17).

Assessment • Draft ⓘ

About Site Details Assessment Threats and Actions KBA criteria

Your site proposal is in Draft state and has not been sent yet for approval

About proposal

What KBA criteria are you assessing for this site ⓘ

A	Threatened Biodiversity	Yes
Subcriteria		
A1 Threatened Species		
B	Geographically Restricted Biodiversity	No
C	Ecological Integrity	No

← Back to Sites Autosaved

Comments (3) Delete draft Propose assessment

Figure C.17. Window that appears when *Edit* is selected with a new button for *Comments*.

Select *Comments* to open a window where comments can be reviewed. This will indicate the number of comments on the proposal at the top of the window and will list all the comments below. If there are many comments to address, then they can be viewed in subsets by selecting specific *Categories* of the proposal using the pre-populated list (Figure C.18). The comments should all be addressed one by one and, where required, changes made in the proposal.

Assessment • Draft ⓘ

About Site Details Assessment Threats and Actions KBA criteria

Your site proposal is in Draft state and has not been sent yet for approval

About proposal

What KBA criteria are you assessing for this site ⓘ

A	Threatened Biodiversity	
Subcriteria		
A1 Threatened Species		
B	Geographically Restricted Biodiversity	
C	Ecological Integrity	

← Back to Sites Autosaved

Comments (3) ⓘ

Type your comment...

B ⓘ Ⓐ Ⓔ Cancel

Category All categories

AP Andy Plum regional focal point 2 minutes ago

Site estimate is to no decimal places. Given small global range please be more accurate

Reply No Replies

AP Andy Plum regional focal point 3 minutes ago

better description of the boundary of the site needed

Figure C.18. Window with comments listed and showing the location of the pull-down menu for *Categories* option.

Each comment has a *Reply* button; the proposer should use this to explain how they have addressed the comment, so that the RFP and the Validation expert can see what the proposer has done to address the reviewers’ comments (see example in Figure C.19).

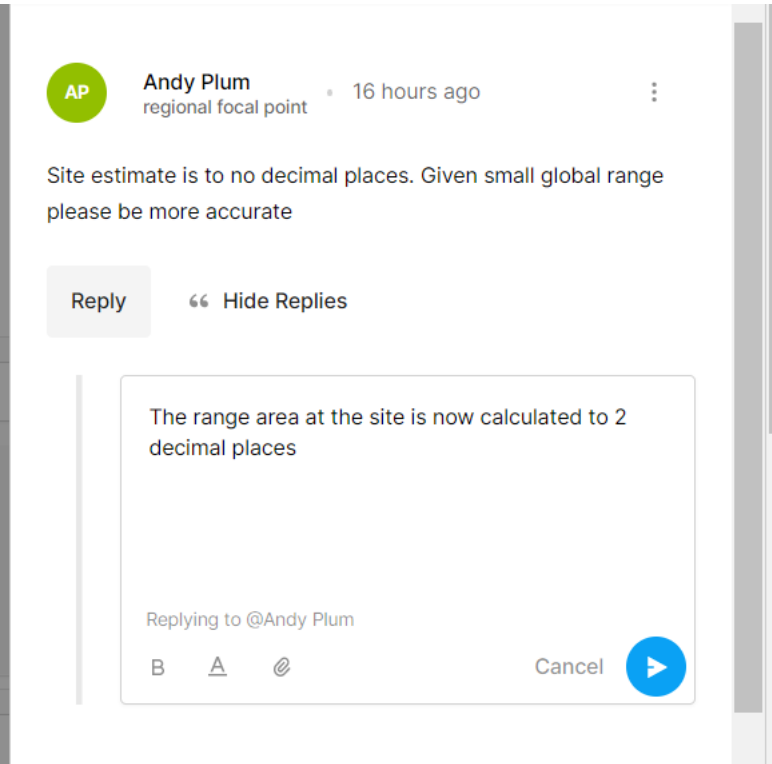


Figure C.19. Example comment with response from proposer in the *Reply* box.

When the Proposer has replied to and/or addressed all comments, they should close the comments window (click at top right) and then click *Propose assessment* again. This will send the proposal back to the RFP to check the changes that have been made. On the *My Sites* page, this will be indicated now as proposed and cannot be edited further. If the RFP is happy with all the responses, they will *accept the proposal* for submission. This will return it to the Proposer. However, at this stage, the site will appear in the *My sites* page as *Reviewed by RFP*. On the right side of the screen, there are three vertical dots under *Actions*. The Proposer can *Nominate* the site to the KBA Secretariat by selecting the *Nominate assessment* option (Figure C.20).

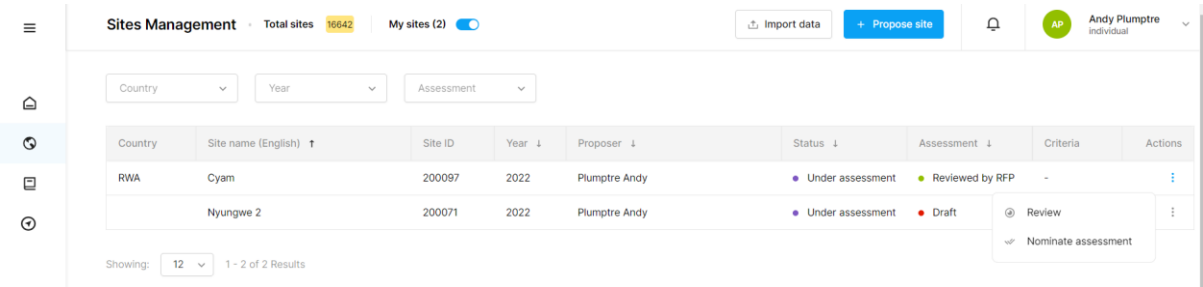


Figure C.20. Site that has been approved by the RFP appears as *Reviewed by RFP* in the *My sites* page and there is the option to *Nominate assessment* under *Actions*.

Nominated sites are reviewed by the KBA Secretariat who may require further edits to the proposal, and may have additional comments. If they do they will return these as a *Draft*. The proposer should go through the same process to address the Secretariat comments and propose them. This returns the site to the RFP to check once more and when approved the proposer can nominate the site again. When the KBA Secretariat *Confirms* the site, it will be published in the WDKBA.