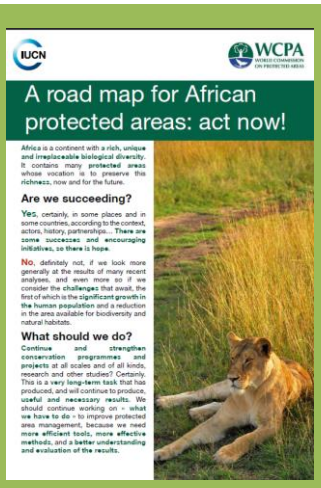

NAPA

News from African Protected Areas

Nouvelles des Aires Protégées en Afrique

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PAPACO coordinator

Myths and crimes…

In early March, a 4-year-old white rhinoceros was killed in the zoological park of Thoiry, near Paris, under the eyes of its two companions. Its horn was sawn off and its theoretical value is estimated at 30 or 40 000 €. In reality, this event is quite anecdotal when compared to the 1054 rhinos killed last year in South Africa alone (whereas this number used to be under a hundred in 2008!), for the same reasons. Yet this is a case of interest.

First, this sad happening shows the limit of ex-situ conservation. Thinking that a species can be saved simply by preserving individuals away from their native land is hazardous, given the capacity of criminal networks to capture it at whatever cost.

Next, this story makes apparent the inhumanity of the perpetrators. To poach a wild animal in a park is one thing, shooting it at close range in a cage is another deal. It is not the first time that this situation occurs. In February, two orphaned rhinos raised in South Africa suffered the same crime.

Finally, it raises the question of the solution. Or rather, the absence of a solution. What can we do when faced with individuals who are able and willing to kill a rhinoceros thousands of miles away from its natural habitat in the utmost savagery?

Stopping the demand is the only realistic answer. For year this has been a mantra, and yet results fail to come.

The rhinoceros horn is made of keratin. It does not grow attached to the bones of the skull (like buffalo horns) but on the nose, and its growth, like that of the nails, never stops (a few centimeters per year). The African rhino is killed only for this appendix whose composition is roughly the same as that of a nail or hair. In market countries, it is reputed for its therapeutic, antipyretic, anticancer, aphrodisiac effects, but all scientific tests have since long demonstrated that the rhino horn has strictly no medical or even nutritional value. In an infusion, it obviously has zero impact, other than the placebo effect conferred by simple minds through their outdated and dangerous beliefs.

One would think that with increasing access to education, information, knowledge… demand (mainly Asian) would dry up on its own. However, the reverse occurs. Those who can afford this magic powder obviously have the means to be aware: they are by no means poor peasants withdrawn from the world, to whom the clearly demonstrated reality would still escape, perpetuating a thousand-year-old tradition in blissful ignorance. In Europe, zoos, museums, auction rooms and private collectors are now targeted by attacks. There is no limit to the ridiculous value that this horn can reach. And soon, synthetic, keratin-based products will flourish on the market, reinforcing these absurd beliefs. It simply seems that consumers are stupid.

If despite the spectacular increase in the level of

consumer information, despite clear research results, despite long-running, repeated information campaigns, demand keeps growing, maybe just mathematically due to the simple population increase, then the situation is desperate. Except perhaps, if safeguarding the African wildlife heritage finally becomes a topic worthy of interest for the leaders of the countries that rule the world (and loot it unashamedly)?

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Please also visit the IUCN-GPAP (IUCN global PA program) webpage and read the newsletter:
https://www.iucn.org/theme/protected-areas/our-work/newsletter

OUR ONLINE TRAININGS

Testimonials from students currently inscribed to the MOOC on Ecological Monitoring

I am Willy Ndawagle, an environmental engineer. I work within the Conservation service of Bouba Ndjidda National Park (North of Cameroon) as support manager. I am, among other things, responsible for ecological monitoring activities and research in the park.

Why are you doing the MOOC on ecological monitoring?

The EM-MOOC is of vital importance to me, because it helps me gain knowledge and build on the foundation I already have. It helps me to identify what to monitor within a protected area, and to implement a good monitoring protocol based on the protected area specificities. Besides, it is something to add to my résumé.

Where and how do you follow the course?

To make things easier, I download the MOOC videos at work. Then, at home or during my free time at work, I watch the videos and take note of important points. After this, I move on to the quizzes.

Any word of advice for those who just started or haven't signed up for the class yet?

Congratulations and good luck to all those following the MOOC, and I can't wait for you to apply everything you learned. The MOOC is also a great opportunity for those who are not working in the field yet, as they will increase their knowledge and their technical capacities. It is also something to add to their résumé, especially if they are looking for a job.

Besides, I encourage those who haven't signed up yet to enroll, because beyond the importance of ecological monitoring for biodiversity management, it is simply fascinating.

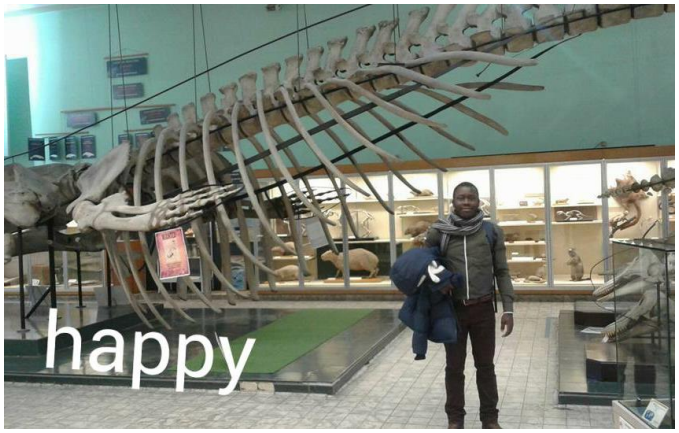
My name is Pacifique Wimana Kizila, I am regional adviser in protected area management for the development of Economic and Natural areas of Tai and Comoé (Côte d'Ivoire).

Why are you doing the MOOC on ecological monitoring?

To me, this MOOC is a tool to strengthen the skills of nature professionals and aficionados in Africa. Ecological monitoring is particularly important for PA managers as it quantifies management efforts and assesses their impact in space and time. PA managers I work with expect from me, as an adviser, to master methodological approaches that are clear and repeatable over time.

Where and how do you follow the course?
I download the videos in the evening at the office, and watch them on my laptop on the field. As for the quizzes and exams, I do them in the evening at the office.

Any word of advice for those who just started or haven't signed up for the class yet?
Please join us, it isn't too late to safeguard Africa's natural heritage!



I am Cybille Boete Bebe Gue, from Cameroon.

As a design engineer in environmental sciences, I am currently enrolled in the Université Catholique de Louvain (in Belgium) where I am doing a Masters specialising in environmental sciences and management in developing countries.

Why are you doing the MOOC on ecological monitoring?
As a future stakeholder in nature conservation in Africa, this MOOC (which is also free), will surely increase my skills. I particularly enjoy that, as opposed to other courses, it addresses notions with scientific rigour. This approach makes it probably hard to follow for the laymen, but with time and effort, you will succeed.

Where and how do you follow the course?
I am lucky enough to follow the course from a country where the internet connection is good, so I usually watch the videos, even though I sometimes use the transcripts when I had a hard time understanding an idea.

Any word of advice for those who just started or haven't signed up for the class yet?
I can only encourage the ones who are still hesitating to join this MOOC, and thank the organizers.


(The author of this testimony wished to remain anonymous)

I am a science teacher in Paris. I currently work for an educational foundation where I produce resources for science teachers and participate in teacher training.

Why are you doing the MOOC? Why ecological monitoring?
I am passionate about ecology (I have a Masters in the field), but I prefer the theoretical side of it. For personal reasons but also in a professional perspective, I have decided to train in the technical and local aspects (animal calls, traces, bird calls etc.). The MOOC was for me a good opportunity to get back to what I know, and see matters in a more practical angle.

Any word of advice for those who just started or haven't signed up for the class yet?
The format of the MOOC and the videos truly help seeing it through. It is therefore a MOOC I would recommend to people interested in the topic.

You can **register** to both **MOOCs (PA management and ecological monitoring) on www.papaco.org,** at the page « trainings »

Also, join our **Group MOOCs** on **Facebook**:
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Our MOOCs are developed in cooperation with the Ecole Polytechnique Fédérale de Lausanne

Our MOOC on PA management

Direction 4 of the Roadmap for African PAs

A new session of our **MOOC** (massive open online course) on **Protected Areas management** starts on **the 3rd of April**. The course is **free** and is organized in **7 modules.** Successful learners get a **Certificate** at the end of the course. Join us now!

Register on:
www.coursera.org/learn/protected-areas

Watch the teaser:
https://www.youtube.com/watch?v=10SQ2DRGWoQ

This session of the MOOC on PA management will be open until end of June 2017

Our MOOC on Ecological monitoring

Direction 4 of the Roadmap for African PAs

A new session of our **new MOOC** on **Ecological Monitoring** will start in the 2nd of **May 2017**. The course is **free** and is organized in **4 modules** that can be followed at your own pace.

Register on:
http://papaco.org/how-to-join-the-em-mooc/

Watch the teaser:
https://www.youtube.com/watch?v=TbXrSO5_Ktg&feature=youtu.be

This session of the MOOC on ecological monitoring will be open until end of June 2017

A Global Standard for the Identification of Key Biodiversity Areas

Prepared by the IUCN Species Survival Commission and IUCN World Commission on Protected Areas in association with the IUCN Global Species Programme

The global standard for the identification of Key Biodiversité Areas (KBA) has been released in March 2016 and provides a structured approach to identify the KBA all over the planet. This is a first step to determine then priorities for conservation. In NAPA 94, the GAPA analysis methodology was exposed, which is linked to the standard. This NAPA tells us briefly what the standard is and presents its characteristics as well as the criteria it builds on. The full guide can be downloaded on www.papaco.org. Hereafter are presented some extracts.

A – Intro

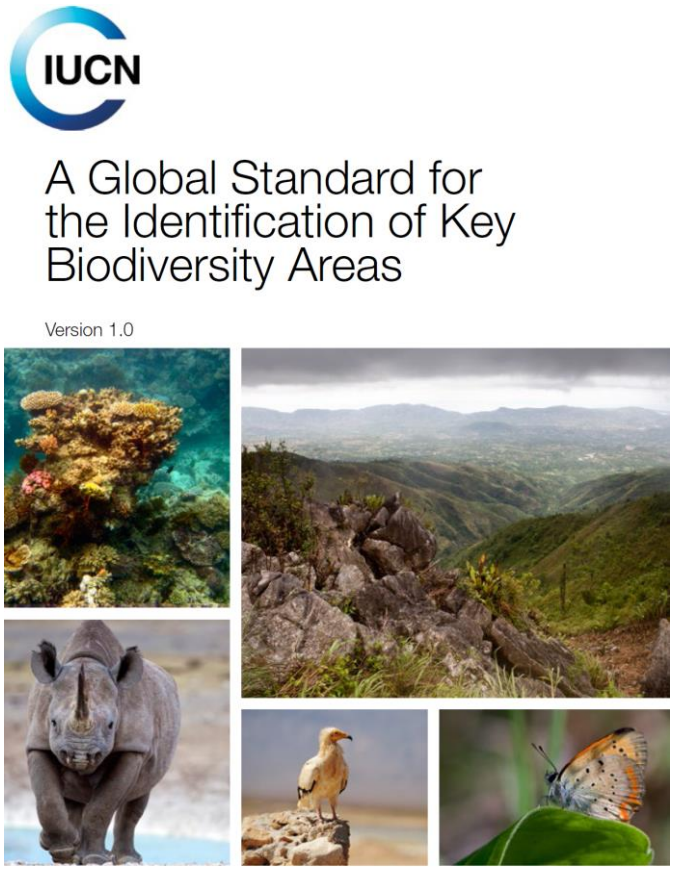
The aims of the KBA Standard are to:

- Harmonize existing approaches to the identification of important sites for biodiversity;
- Support the identification of important sites for elements of biodiversity not considered in existing approaches;
- Provide a system that can be applied consistently and in a repeatable manner by different users and institutions in different places and over time;
- Ensure that KBA identification is objective, transparent and rigorous through application of quantitative thresholds;
- Provide decision-makers with an improved understanding of why particular sites are important for biodiversity.

Data generated through application of the KBA Standard are expected to have multiple uses. KBAs can support the strategic expansion of protected-area networks by governments and civil society working toward achievement of the Aichi Biodiversity Targets (in particular Target 11 and 12), as established by the Convention on Biological Diversity; serve to inform the description or identification of sites under international conventions (such as Ecologically and Biologically Significant Areas described under the Convention on Biological Diversity, wetlands of international importance designated under the Ramsar Convention, and natural World Heritage Sites); inform private sector safeguard policies, environmental standards, and certification schemes; support conservation planning and priority-setting at national and regional levels; and provide local and indigenous communities with opportunities for employment, recognition, economic investment, societal mobilization and civic pride.

It should be emphasized, however, that areas not identified as KBAs are not necessarily of lesser importance. For some regions current limitations on capacity and technology mean that it will take time to compile the necessary data and level of detail to demonstrate that sites meet the quantitative thresholds associated with the KBA criteria, and for the deep ocean it will be difficult and might be impossible in certain situations, at least over the next few decades. Initiatives that are working to highlight areas of importance for safeguarding biodiversity through expert-driven processes, such as Important Marine Mammal, can help fill data

gaps and inform KBA identification (and vice versa).



In addition, other areas, which do not meet the global criteria and thresholds defined here may be important for other reasons, and in many cases, are managed as such. These include sites that meet (or will meet) criteria and thresholds of regional or national significance for biodiversity; sites considered to be important at global, regional or national levels for other reasons (e.g. maintaining productivity, ecosystem services, aesthetics or cultural heritage); and seascapes or landscapes important for the persistence of biodiversity beyond the site scale.

B - Understanding the standard and its criteria

1. Purpose of the criteria

The purpose of the criteria is to locate and highlight sites that make significant contributions to the global persistence of biodiversity. The KBA criteria incorporate elements of biodiversity across genetic, species and ecosystem levels, but their purpose is not to include every species or ecosystem within a KBA. The benefits that biodiversity delivers to people are not incorporated into the criteria, but it is recommended that the provision of such ecosystem services, including cultural values, are documented for each site. A principle for developing the Standard has been to keep it as simple as possible; however, having criteria and thresholds that both build from existing approaches and that can be robustly applied across taxonomic groups and all elements of biodiversity has meant that some complexity cannot be avoided.

2. Relevant biodiversity elements

KBAs are identified for biodiversity elements for which specific sites contribute significantly to their global persistence. Some biodiversity elements, such as wide-ranging or migratory species that occur at low densities, may trigger one or more KBA thresholds at particular sites, even if their global persistence depends primarily on management at the scale of entire landscapes, seascapes, catchments, or migratory corridors (e.g. fishery regulations, integrated basin management, restoration of connectivity). Similarly, the global persistence of other biodiversity elements may require targeted, species-specific interventions (e.g. wildlife trade enforcement, disease mitigation), even if the biodiversity elements trigger one or more KBA thresholds at particular sites. Safeguarding KBAs is hence complementary to land-/seascape-scale and species-specific management.

3. Biological scope

The KBA criteria can be applied to macroscopic biodiversity in terrestrial, inland water and marine environments. Although not all KBA criteria may be relevant to all elements of biodiversity (e.g. not all species aggregate), the thresholds associated with each of the criteria have been developed to work across all taxonomic groups and ecosystems to which they are applicable.

4. Role of the different criteria

The different criteria address different ways in which sites contribute significantly to the global persistence of biodiversity. Sites should be assessed against all relevant criteria for which data are available, but meeting the thresholds under any one of the criteria or sub-criteria is sufficient for a site to be recognized as a KBA, assuming documentation requirements are met. Individual elements of biodiversity may trigger more than one criterion at the same site.

5. Derivation of the quantitative thresholds

The thresholds associated with each of the KBA criteria (and sub-criteria) are designed for identifying KBAs at the global level. They are informed by several decades of experience in

applying quantitative thresholds to identify important sites for biodiversity, such as IBAs and AZE sites. The criteria and quantitative thresholds were developed through a series of technical workshops and subsequently refined through wide expert consultation and testing with datasets covering diverse taxonomic groups, regions and environments.

6. Global vs. regional and national thresholds

The criteria presented in this Standard are for the identification of KBAs meeting thresholds of global significance. Wherever possible, the process of applying the Standard should be led nationally with the involvement of relevant local stakeholders. Some countries/regions may also desire to apply the criteria with less stringent thresholds to identify sites of national/regional significance. Sites can be identified as regional KBAs following guidelines for applying the KBA Standard at regional and national levels, while for KBAs already identified at the regional level, pre-existing criteria and thresholds will continue to apply. National constituencies are encouraged to establish and apply thresholds for identifying national KBAs if doing so is considered to be valuable within a given country. The set of global and regional KBAs will form the list of internationally significant KBAs.

ZCB are significantly important for biodiversity conservation

7. Data quality and metrics for inference

The KBA criteria have quantitative thresholds to ensure that site identification is transparent, objective and repeatable. It is important to compile the best available data for KBA identification, but the availability of high quality data differs significantly between different taxonomic groups. Hence, for some of the population size-related criteria there is a range of metrics that can be used to estimate or infer whether a site holds a threshold proportion of a species' global population size, including number of mature individuals, area of occupancy, extent of suitable habitat, range, number of localities, and distinct genetic diversity.

In assessing sites against the criteria, application of all metrics specified should be attempted, accepting that data will often be insufficient to allow this. Number of localities is only appropriate to use where sampling intensity is sufficiently high that the known localities can be assumed to represent adequately the range and area of occupancy of the species. Multiple localities may fall within a single KBA, and abundance may vary considerably across the different localities; thus it should not necessarily be assumed that a species occurring at 100 or fewer localities meets a 1% threshold at each of those localities. For the area-based metrics, a 1% threshold can typically be inferred where the site contains at least 1% of the global extent of a species' area of occupancy, extent of suitable habitat or range, assuming the species is documented to occur at the site.

These metrics should be used cautiously, however, given that species tend not to be evenly distributed throughout their range, area of occupancy, or extent of suitable habitat.

Distinct genetic diversity differs from the other metrics in that it refers to the proportion of a species' genetic diversity that is encompassed by a particular area. A site holding more than the threshold proportion of a species' genetic diversity can qualify as a KBA, even if the proportion of the species' global population size at the site is insufficient to trigger KBA identification.

8. Uncertainty

The data used to assess whether quantitative thresholds of the KBA criteria have been met are often estimated with considerable uncertainty. Such uncertainty can arise from natural variation, vagueness in the terms and definitions used, lack of data, and measurement error. For example, estimates of the global population size of a species might range by more than an order of magnitude, the numbers of individuals or reproductive units at a given site might be subject to substantial inter-annual variation, and delineation may vary greatly in precision. The documentation standards require assessment of the level of uncertainty in the identification and delineation of KBAs (see point 9), while the progressive reduction of such uncertainty is promoted by the periodic re-evaluation of KBAs (see point 10).

9. Documentation

KBA identification is an iterative process and requires the confirmed presence of one or more biodiversity elements (e.g. species, ecosystem type) at the site that both trigger at least one KBA criterion and meet the corresponding threshold(s). These data must be traceable to a reliable source and be recent enough to give confidence that the biodiversity elements are still present given the history of land use change in an area. A minimum set of information is required for each KBA to support and justify the recognition of a site as a KBA, and an additional set of recommended information should ideally be compiled for each site.

10. Re-evaluation

Sites should be re-assessed against the criteria and thresholds at least once every 8–12 years although more frequent monitoring of KBAs is recommended wherever possible. Both genuine changes in status and changes in knowledge of the biodiversity element(s) triggering the criteria and thresholds may affect the status of a site as a KBA, while other new sites may be found to qualify during this re-evaluation period. Sites that fail to meet any criteria will no longer be considered global KBAs, however, such sites may still meet thresholds for regional or national significance and/or become priorities for restoration.

11. Climate and environmental change

Environmental changes resulting from a range of stressors, notably climate change, may affect the biodiversity in a KBA to such an extent that the site ceases to qualify, which will be determined upon re-evaluation (see point 9). It is also possible that a KBA may increase in importance as a result of climate change or that new sites will qualify. Re-evaluation of sites every 8-12 years will be important for maintaining accurate data over time. It is desirable to predict short-term impacts of climate change and other environmental stressors, such as habitat destruction, pollution and invasive species, and to conduct vulnerability analyses at sites. However, a prediction that a site is vulnerable to climate or other environmental change should not preclude its recognition as a KBA. Where manageability and topographic complexity allow (e.g. mountain systems that permit upslope movement), site delineation may take into account the possibility of habitat refugia or areas suitable for near-term shifts of species and ecosystems at risk. This should only be done for sites where data are adequate to make a defensible case. Site management of KBAs should consider climate change and other impacts and manage them to the extent that this is possible, according to the best available guidance.

It may be possible to predict the future locations of potential KBAs under climate change scenarios. Such predictive models will be important in national and regional conservation planning exercises. However, KBAs should be identified on the basis of the current presence of biodiversity elements, rather than on projected future distributions.

12. KBAs and protected areas

The identification of a site as a KBA on the basis of the criteria and thresholds presented here is unrelated to its legal status; however, such status will often inform site delineation. Many KBAs overlap wholly or partly with existing protected area boundaries, including sites designated under international conventions (e.g. Ramsar and World Heritage) and areas protected at national and local levels (e.g. national parks, indigenous or community conserved areas). However, it is recognized that other management approaches may also be appropriate; the identification of a site as a KBA simply implies that the site should be managed in ways that ensure the persistence of the biodiversity elements for which it is important. It

is also understood that many protected areas are established for other conservation purposes and will not be identified as KBAs unless they also hold biodiversity elements meeting the criteria and thresholds.

13. KBAs and conservation priorities

KBAs are sites of importance for the global persistence of biodiversity. However, this does not imply that a specific conservation action, such as protected area designation, is required. Such management decisions should be based on conservation priority-setting exercises, which combine data on biodiversity importance with the available information on site vulnerability and the management actions needed to safeguard the biodiversity for which the site is important. It is often desirable to incorporate other data into priority-setting, such as conservation cost, opportunity for action, importance for conserving evolutionary history and connectivity. KBAs thus do not necessarily equate to conservation priorities but are invaluable for informing systematic conservation planning and priority setting, recognizing that conservation priority actions may also be outside of KBAs.

C – Criteria

These criteria are characterized by measured indicators – please refer to the guide for more information.

A – THREATENED BIODIVERSITY

A1. Threatened species

Sites qualifying as KBAs under criterion A1 hold a significant proportion of the global population size of a species facing a high risk of extinction and so contribute to the global persistence of biodiversity at genetic and species levels.

A2. Threatened ecosystem types

Sites qualifying as KBAs under criterion A2 hold a significant proportion of the global extent of an ecosystem type facing a high risk of collapse and so contribute to the global persistence of biodiversity at the ecosystem level.

B. GEOGRAPHICALLY RESTRICTED BIO-DIVERSITY

B1: Individual geographically restricted species

Sites qualifying as KBAs under criterion B1 hold a significant proportion of the global population size of a geographically restricted species and so contribute significantly to the global persistence of biodiversity at the genetic and species level.

B2: Co-occurring geographically restricted species

Sites qualifying as KBAs under criterion B2 hold a significant proportion of the global population size of multiple restricted-range species, and so contribute significantly to the global persistence of biodiversity at the genetic and species level.

B3: Geographically restricted assemblages

Sites qualifying as KBAs under criterion B3 hold assemblages of species within a taxonomic group that are globally restricted and so contribute significantly to the global persistence of biodiversity at the genetic, species and ecosystem levels.

B4: Geographically restricted ecosystem types

Sites qualifying as KBAs under criterion B4 hold a significant proportion of the global extent of a geographically restricted ecosystem type and so contribute significantly to the global persistence of biodiversity at the species and ecosystem level.

C. ECOLOGICAL INTEGRITY

Sites qualifying as KBAs under criterion C hold wholly intact ecological communities with supporting large-scale ecological processes and so

contribute significantly to the global persistence of biodiversity at the ecosystem level.

D. BIOLOGICAL PROCESSES

D1: Demographic aggregations

Sites qualifying as KBAs under criterion D1 hold a significant proportion of the global population size of a species during one or more life history stages or processes, and so contribute significantly to the global persistence of biodiversity at the species level.

D2: Ecological refugia

Sites qualifying as KBAs under criterion D2 hold a significant proportion of the global population size of a species during periods of environmental stress, and so contribute significantly to the global persistence of biodiversity at the species level.

D3: Recruitment sources

Sites qualifying as KBAs under criterion D3 are where a significant proportion of the global population size of a species is produced, and so contribute significantly to the global persistence of biodiversity at the species level.

E. IRREPLACEABILITY THROUGH QUANTITATIVE ANALYSIS

Sites qualifying as KBAs under criterion E have very high irreplaceability for the global persistence of biodiversity as identified through a complementarity based quantitative analysis of irreplaceability.

More on www.papaco.org

INFO: a new interdisciplinary and multi-expert MOOC (Massive Open Online Course) on ***Global Health at the Human Animal Ecosystem Interface*** has been launched. It gathers more than 30 experts from 20 top institutions including University of Geneva, Institut Pasteur, University of Montreal, World Health Organisation etc.

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