extinction risk Globally Endangered (GE), Evolutionarily Distinct and Globally Endangered (EDGE) scores can be computed for designing conservation strategies (see www.edgeofexistence.org).

The availability of genetic data resources linked to a large and reliable repository of taxonomy is therefore essential for phylogenetically informed conservation strategies. During 2010–2013 the EU Indexing for Life (i4Life) project (www.i4life.eu), coordinated at the University of Reading, UK, established a virtual research community to enable six partners to engage in a programme to enumerate the extent of life. The partners were the Global Biodiversity Information Facility, the European Molecular Biology Laboratory–European Bioinformatics Institute, IUCN, LifeWatch, the Encyclopedia of Life, and the Barcode of Life programme.

The project built on the common need of these partners to access high-quality taxonomic data in the partnership's databases, and was a European e-Infrastructure project, co-funded by the European Commission's Seventh Framework Programme for Research and Technological Development. For each of the partners i4Life designed and implemented the necessary tools, as well as significantly enhancing the *Catalogue of Life* (www.catalogueoflife.org).

The i4Life project also established a set of tools and standards for data sharing and cooperation among major biodiversity programmes. Tools developed included a download service, a cross-mapper for comparing different taxonomies and a piping tool that accepts taxa centrally and then 'pipes' them out to c. 130 global species checklists for processing (http://www.i4life.eu/i4lifewebsite/col-piping-tools/). These tools facilitated the cross-referencing of the partners' taxon names with the taxonomically edited *Catalogue of Life* list, and a gap analysis of taxonomic coverage among the partners to identify taxa missing from the *Catalogue of Life*, and helped complete the taxon lists in the partners' taxonomic data.

The i4Life project is a major achievement in biodiversity informatics as it ensures a higher quality of taxonomic data in the databases of the project's partners and facilitates the usability of genetic data resources essential for conducting phylogenetically informed conservation strategies such as EDGE. In this regard the European Molecular Biology Laboratory–European Bioinformatics Institute European Nucleotide Archive has recently developed a marker portal from which phylogenetic marker sequences can be downloaded (www.ebi.ac.uk/ena/data/warehouse/search).

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New tourism concessions in National Parks to benefit community conservancies in Namibia

Although the long-term survival of protected areas is widely believed to depend on them benefiting local communities, it is unusual for communities to be given major tourism opportunities in national parks. The recent allocation of tourism concessions to community conservancies in Namibia has passed with little comment and should be recognized more widely as a major milestone in Namibia's support for community-based conservation.

The development of the Caprivi Nature Park provided the first impetus towards community benefits from protected-area tourism in Namibia. At independence in 1990 local people (about 6,000 of whom lived in the Park) agreed that it should be upgraded to the Bwabwata National Park only if they were to be the primary beneficiaries. The Palmwag, Etendeka and Hobatere concession areas in Kunene Region had also been designated for conservation by traditional authorities shortly before independence and, after communal conservancies were established under the Nature Conservation Ordinance Amendment of 1996, it was agreed that benefits should go to adjoining conservancies, although government retained responsibility for management.

A draft policy on concessions in state protected areas was developed by the Ministry of Environment and Tourism during 2004–2005 and approved in 2007. This recognized that one of the main reasons for giving out tourism concessions was to share benefits with park residents and neighbouring communities. Three concessions had already been allocated in Bwabwata before the policy was approved: a hunting concession with 50% of the income going to park residents, and two camp-sites.

The first tourism concessions under this policy were awarded between 2008 and 2010, including two sites in the Hobatere concession area (one with traversing rights in Etosha National Park), one in Etendeka, one in Bwabwata National Park and one in Khaudum National Park. Tourism operations in these concessions were to be managed by private-sector partners (existing operators in two cases and new operators in the others). Typically 75% of the income from the operators goes to the conservancies holding the head concession contract, with the other 25% going to the Namibian government.

Unfortunately these were awarded as Namibian tourism was suffering from the global economic crisis and so the private-sector partners failed to develop three of the sites and another was delayed because of gold exploration next to the lodge site. Only Etendeka remained a viable prospect, and even there the development of a new lodge was considered too high a risk, and so the existing facility was upgraded with funding from the African Safari Lodge Foundation and Millennium Challenge Account–Namibia. Development of the other sites is now underway, thanks in

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part to the provision of 49% matched funding by Millennium Challenge Account–Namibia and the improved financial climate for tourism.

In July 2011 three conservancies were given tourism rights over the Palmwag concession, which forms the core of Africa's largest unfenced rhino population. Wilderness Safaris, which had previously held the concession, now became sub-concessionaire for the existing Desert Rhino Camp and a new camp, and another operator took over the existing Palmwag Lodge.

A new set of concessions, awarded in October 2013, included two sites in the Skeleton Coast National Park, two additional sites in Bwabwata National Park and one in Mamili National Park. Two conservancies on the northern boundary of Etosha National Park were given private gates into the Park and exclusive traversing rights, greatly enhancing the value of tourism facilities on the Park boundary. Three of these conservancies have existing private-sector partners and the others will need to go through a competitive tender process to find investors.

The new concessions should generate c. 250 new full-time jobs for local people and up to NAD 5 million (USD 500,000) per year in additional income to communal conservancies. Approximately 75% of this typically goes to supporting operations, including community game guards, and the rest is distributed as benefits in cash or in kind to conservancy members.

These new concessions will further strengthen Namibia's communal conservancies, generally acknowledged to be the most successful example of community-based natural resource management in Africa. This is timely as the concessions in the Skeleton Coast National Park and Palmwag Concession Area will provide additional income to conservancies that have so far provided effective protection for the largest free-ranging black rhino population.

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New population of Abbott's duiker and other species' range records in the Udzungwa Mountains, Tanzania

Vertebrate surveys in the ancient and endemic-rich Afromontane forests of Tanzania continue to reveal new species and range extensions. Here we report on a survey conducted during October–November 2013 in the Udzungwa Mountains, the southernmost and largest block within the renowned Eastern Arc Mountains. The target forest, Iyondo, is part of the Kilombero Nature Reserve, which was gazetted in 2007 to allocate upgraded protection status to a number of forest reserves to the west and south of the Udzungwa Mountains National Park (*Oryx*, 41, 429–430). Within this protected area Iyondo is the south-westernmost forest patch, with an extension of 28 km^2, comprising mostly pristine montane moist forest at elevations of 1,200–1,900 m. As far as we are aware only one biological survey has been conducted previously in this forest, targeted mainly at primates.

Our survey targeted medium–large mammals and forest birds. For mammals we used camera-trapping and opportunistic observations. We deployed 16 digital camera-traps each for a maximum of 40 days, resulting in a total sampling effort of 635 camera-days. To maximize captures, cameras were set opportunistically along wildlife trails. Forest birds were surveyed using a combination of mist netting and observations. Netting was carried out for 7 days, using 12 12-m-long nets. After identification the birds were released.

Camera-trapping yielded 2,320 photographs or video-clips of 12 species of mammals belonging to 11 genera. The most significant record was of Abbott's duiker *Cephalophus spadix*, which was captured on three occasions. This is a large, Endangered duiker endemic to Tanzania, restricted to a few montane forests, with Udzungwa being considered the species' stronghold (*Oryx*, 46, 14–15). In Udzungwa Abbott's duiker occurs in most of the largest forest blocks but is known to be heavily hunted in unprotected sites, and thus this additional record is of considerable conservation relevance. Among the other forest mammals detected was Lowe's servaline genet *Genetta servalina lowei*, which was captured on camera-traps on 14 separate occasions. This genet subspecies is endemic to moist forests in the Eastern Arc Mountains (*Oryx*, 40, 468–471). Besides the camera-trapped species we also sighted a galago whose identification requires confirmation but which may be a new record of the mountain galago *Galagoides orinus*. We also confirmed the presence of the Udzungwa-endemic red colobus monkey *Procolobus gordonorum*, along with the Angolan colobus *Colobus angolensis* and Sykes' monkey *Cercopithecus mitis monoides/moloneyi*.

Sixty species of montane forest birds were recorded, including the Vulnerable Udzungwa-endemic rufous-winged sunbird *Nectarinia rufipennis*. Other Red-Listed bird species recorded were the white-winged apalis *Apalis chariessa*, dapple-throat *Arcanator orostruthus* and Swynnerton's robin *Swynnertonia swynnertoni* (all Vulnerable) and the Endangered Usambara weaver *Ploceus nicolli*.

Overall our survey confirmed that Iyondo is a typical Eastern Arc montane forest, with many restricted-range species. Despite being remote and comprising predominantly steep terrain, we found signs of human encroachment in the form of hunting, tree logging and pole cutting.