Avoiding extinction in limestone karst areas

RECALLING the joint BirdLife International, Fauna & Flora International (FFI), IUCN and WWF paper on *Extraction and Biodiversity in Limestone Areas* (2014) and its accompanying six recommendations for how extraction can be made more compatible with conserving biodiversity in limestone areas;

RECOGNISING that many limestone areas are known as karst landscapes, which in most situations hold vast amounts of clean water within a groundwater aquifer held within the limestone bedrock; that many of these aquifers contain unique ecosystems, which are very susceptible to water quality and quantity changes, for example contamination from heavy metals in sediments or from introduced chemicals, or damage or destruction from quarrying, clear-cutting of forests, and many other extractive uses; and that ensuring water resources are uncontaminated in these limestone areas is a major factor in the survival and preservation of their unique biodiversity;

RECOGNISING that it has been shown scientifically that karst limestone areas commonly have severely range-restricted biodiversity within them (in caves) and on their surfaces;

CONSIDERING the importance of harnessing the limited expertise on the taxa most commonly found in such areas;

FURTHER CONSIDERING the likelihood of species extinction resulting from certain developments, for example poorly-planned limestone quarrying or cave-based tourism, in such areas;

FURTHER CONSIDERING that karst caves are critical sites for understanding prehistoric cultural heritage and previous climate change phenomena, and furthermore, considering the location of the limestone mineral reserves and the cave areas;

RECOGNISING that causing global species extinctions, or actions that would result in an increased risk of extinction for restricted biodiversity, would be in direct opposition to the targets of the Convention on Biological Diversity’s Strategic Plan for Biodiversity 2011–2020, especially Aichi Biodiversity Target 12, and the United Nations 2030 Agenda for Sustainable Development, especially Sustainable Development Goal 15;

RECOGNISING the high levels of site-specific endemism that frequently occurs in karst caves; NOTING the under-representation of karst systems within protected areas; and RECOGNISING the environmental impacts generated by extractive industries, including threats posed by the increasing demand for cement in many developing countries;

The World Conservation Congress, at its session in Hawai’i, United States of America, 1-10 September 2016:

1. REQUESTS State, Government Agency and NGO Members, academia and companies to ensure that the best-available expertise is used to find, identify and manage severely range-restricted biodiversity in limestone karst areas affected by land-uses and other activities that modify karst environments (such as the supply of limestone for the production of construction materials, including cement plants, or cave-based tourism), to undertake all operations mindful of the sensitivity of the sites concerned, and to ensure the results of such attention is made publicly available to encourage stakeholder participation in the management of these sites;

2. CALLS on IUCN State Members to work in their own jurisdictions on measures to promote knowledge of the geodiversity and biodiversity of limestone karst areas and their natural processes, to develop an inventory of their natural and cultural heritage, and to assess the potential impacts resulting from their use, in order to ensure that these areas are managed in a sustainable manner for the sake of future generations;

3. URGES State, Government Agency and NGO Members, academia and companies to work collectively towards identifying and protecting hotspots of endemism and diversity in limestone karst areas;
4. ENCOURAGES further research on the sustainable management of karst areas within the ecosystem matrix and encourages the cement and limestone industry to take a leading role in the protection of caves; and

5. REQUESTS IUCN and the institutions linked to speleology (such as the International Union of Speleology) to lead the process of developing clear guidance for the sustainable utilisation of karst landscapes to maintain biodiversity.