

**Geoheritage and protected areas**

CONSIDERING that our well-being and survival depend on the elements and processes of both geodiversity and biodiversity;

NOTING the growing commitment with respect to the preservation, study and sustainable use of geoheritage;

ACKNOWLEDGING that the main geodiversity elements directly influencing biodiversity are geological substrates, which determine hydrology, erosion, nutrients, the chemistry of soils, and vegetation health and cover; landforms, which determine climate, hydrology, soils and habitats and species distributions; and active geological processes, which determine habitats and species distributions and survival;

RECOGNISING that selected geodiversity elements and processes, designated as geoheritage, play a crucial role in underpinning biodiversity conservation and the conservation of protected areas, as well as providing other scientific, conservation and ecosystem-service benefits;

CONSIDERING the specificity of natural cavities resulting from complex dynamic processes linking the Earth's surface and underground rocks;

RECOGNISING the biological and geological interest in natural cavities, which combine endokarstic and volcanic geological formations with terrestrial and aquatic habitats, and which support fauna, flora and fungi specific to these environments, and include elements and landscapes without any equivalent on Earth's surface;

RECALLING that underground environments remain largely unknown because they are invisible to most people and hard to access, and are a pioneering frontier for scientific research and discoveries;

CONCERNED that the role of geodiversity in ecosystem services is not yet being fully addressed by protected area policies and management;

BEARING IN MIND that, while certain countries have geoheritage protection, it is generally recognised that the mechanisms available, whether internationally or nationally, are not enough to guarantee conservation of the most significant geosites, and that many of these sites are at risk, mostly due to threats from human activities;

WELCOMING the efforts of the International Union of Geological Sciences (IUGS) in supporting the Global Geosites Programme to identify geological sites of international relevance, and the initiative of the IUGS International Commission on Stratigraphy, which identifies sites of global significance as standards for Earth's geological time and its record;

RECALLING that Resolution 5.048 *Valuing and conserving geoheritage within the IUCN Programme 2013–2016* (Jeju, 2012) specifically called on the World Commission on Protected Areas (WCPA) to “promote and support, in collaboration with UNESCO and the International Union of Geological Sciences (IUGS), the elaboration and extension of the inventory for the Global Geosites Programme, as well as other regional and international inventories of sites of geological interest”;

RECALLING Resolutions 4.040 *Conservation of geodiversity and geological heritage* (Barcelona, 2008), 5.048 (cited above) and 6.083 *Conservation of moveable geological heritage* (Hawai'i, 2016) in favour of geoconservation;

ALSO RECALLING Resolution 6.041 *Identifying Key Biodiversity Areas for safeguarding biodiversity* (Hawai'i, 2016), which reveals that identifying, promoting and protecting geodiversity is missing in the global conservation agenda;

FURTHER RECALLING Resolution 6.063 *Avoiding extinction in limestone karst areas* (Hawai'i, 2016) regarding the conservation of very specific life forms hosted in karstic environments; and

WELCOMING the efforts of WCPA's Geoheritage Specialist Group to develop effective best-practice guidance tools addressed to protected area managers;

**The IUCN World Conservation Congress 2020, at its session in Marseille, France:**

1. REQUESTS the Director General and WCPA to:

a. mobilise IUCN Regional Offices and the IUCN Global Programme in support of national efforts to collect, compile and publish data on geoheritage and geodiversity in protected areas, including proper inventories, research, and sustainable management and protection of geological substrate, landforms and active geological processes;

b. support the development of a detailed study envisaging the establishment of a future IUCN initiative on Key Geoheritage Areas, as a complement to the existing Key Biodiversity Areas programme, in order to protect geoheritage sites of global conservation significance and move towards more integrated nature conservation;

c. encourage work, including by protected area managers, to enhance the information and proper interpretation of geodiversity and geoheritage in order to increase the awareness of visitors of all natural features inside natural cavities and protected areas and the ways in which geological, biological and cultural elements are often inter-linked; and

d. engage with the Commission on Ecosystem Management (CEM) to encourage a concerted effort to conduct ecosystem Red List assessments of geologically interesting ecosystems, and to incorporate geoheritage assessments as part of the normal procedure for red-listing and ecosystem assessments;

2. ENCOURAGES national Member organisations, other nature conservation organisations, civil society, academia and managers of protected areas and outstanding underground sites to:

a. foster knowledge about geodiversity and geoheritage inside and outside protected areas and to integrate nature conservation principles and methods into the management of protected areas to ensure the effective protection of this component of natural heritage;

b. establish or improve national legislation concerning the protection of geoheritage, and enabling the necessary conditions to ensure the implementation of effective conservation measures; and

c. encourage the respectful exploration and study of underground environments and their interrelations with the surface; and

3. CALLS ON states, non-governmental organisations, universities, researchers, economic stakeholders and protected area managers to take into account the specific issues linked to underground environments in the definition and implementation of nature conservation policies and to adopt a holistic approach to the management of underground natural environments, considering all relationships between biological and geological elements.