



## THE 2019 KUALA LUMPUR DECLARATION: THE SPECIES EXTINCTION CRISIS IS A CRISIS OF HUMANITY

### INTRODUCTION

This Declaration reflects the research presented and discussed by 1,332 participants from 87 countries attending the 29<sup>th</sup> International Congress for Conservation Biology (ICCB) held on 21-25 July 2019 in Kuala Lumpur, Malaysia. It draws on presentations made at the ICCB 2019 that provided practical advice on how the global species extinction crisis can be averted. We hope that this Declaration will enable us to share our findings with the wider public and remind ourselves of the major broad conclusions reached.

The Global Assessment Report on Biodiversity and Ecosystem Services<sup>1</sup> issued by the International Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in May 2019 should worry all concerned people. It concluded that 75% of the terrestrial ecosystems have been severely altered by human actions, and up to 1 million animal and plant species are already threatened with extinction. The marine ecosystems are similarly threatened, with issues surrounding coral reefs and coastal conservation of particular concern. The seminal report also highlighted the substantial conservation value of indigenous and local knowledge systems coupled with modern scientific knowledge, showing that indigenous peoples and local communities make major contributions to nature and conservation both inside and beyond formally protected areas.

Species extinction has been widely discussed<sup>2,3</sup> and governments have agreed on ways to address the problem, including through Targets 11 and 12 of the *Strategic Plan for Biodiversity 2011-2020*<sup>4</sup> of the Convention on Biological Diversity (CBD), and Goals 14 and 15 of the *United Nations Sustainable Development Goals*<sup>5</sup>. Yet progress remains modest and additional action is imperative if species are to continue supporting the world's ecosystems upon which all human development depends.

The alarmingly high rate of largely human induced species loss in recent decades, balanced by the development of new conservation approaches, partnerships, and technologies, formed a major backdrop to the ICCB 2019. In particular, we were inspired by the Indonesian efforts to bring the Critically Endangered Sumatran Rhinoceros back from the brink of extinction, and by the many examples presented on effective ways to respond effectively to the wider extinction crisis on land, in the sea, and in the coastal zone. We also heard many examples of successful ways to respond to its ecological and the socio-political dimensions. We hope that this work can

<sup>1</sup><https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services>

<sup>2</sup><https://academic.oup.com/bioscience/article/67/12/1026/4605229>

<sup>3</sup><https://www.pnas.org/content/pnas/114/30/E6089.full.pdf>

<sup>4</sup><https://www.cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf>

<sup>5</sup><https://sustainabledevelopment.un.org/post2015/transformingourworld>



provide new perspectives to the CBD Conference of Parties to be held in 2020 in Beijing, which will focus on developing a new 10-year Strategic Plan for Biodiversity and offers SCB a once-in-a-decade opportunity to feed conservation science into the intergovernmental process.

## CALL TO ACTION

We call on the public as well as governments at all levels, private companies, civil society organisations, faith communities, scientists from all disciplines, and indigenous peoples and local communities to:

1. **Recognise that we are united by the threats posed by species loss.** Solutions need to transcend national borders, and nations will benefit from working together to support regional conservation efforts, considering that all peoples, societies, and future generations will face the consequences of failing to act as one body - the human species.
2. **Work together to reduce or halt species extinctions.** Presentations at ICCB showed that this would depend on actions such as protecting wildlife habitats, enhancing habitat connectivity, halting the spread of invasive alien species, limiting the negative impacts of major infrastructure developments, restoring degraded land, and promoting sustainable livelihoods and wellbeing. We encourage the use of appropriate technologies that SCB members presented to support the implementation of such measures. We also note that a new CBD Strategic Plan 2021-2030 will offer governments an opportunity to update their National Biodiversity Strategies and Action Plans, and these could benefit from considering the messages from this Declaration. Governments might also wish to benefit from the wide range of biodiversity-relevant international conventions, including some that need more signatories if they are to become more effective in areas like transboundary conservation, such as the Convention on the Conservation of Migratory Species of Wild Animals (CMS). And a major effort to deal with the global threat of pollution by plastics is especially urgent, given its pervasive negative impact on marine species and ecosystems, human health, and climate.
3. Recognise that the wave of species extinctions presents an **urgent global crisis that requires immediate and sustained attention**, and geopolitical tools should not be used to delay action or hinder progress in conservation but rather to support these aims. Among other measures, this calls for developing a comprehensive research agenda drawing from IPBES and SCB that helps to inform Parties at the 2020 CBD CoP in Beijing.

More specifically, the ICCB participants call on SCB members to urge their organisations, including government agencies, research institutions, non-governmental conservation organisations, and the private sector to contribute to the new *Strategic Plan for Biodiversity 2021-2030* and support conservation in the following main ways:

4. **Build on sound science.** A solid evidence base for conservation decisions will promote open communication with government agencies, local communities, and the private sector. This calls for transparent, accountable, and adaptive governance and management of natural resources, and empowering local communities to be more deeply engaged and enabled in appropriate development and conservation actions. We found that evidence-based information that is freely shared can minimise bias and avoid misinterpretation, leading to empowerment and effective conservation action. But

- further attention needs to be given to identifying **which data are required** and **how they should be synthesised** to ensure effective communication.
5. **Link biodiversity conservation to efforts to address climate change.** Maintaining healthy ecosystems will enhance climate change resiliency of nations. An important issue that needs further attention is **how terrestrial and marine species and protected areas are affected by climate change over time**, perhaps leading to changes in boundaries and management approaches. Other useful actions to enable adaptation to changing climate include expanding the protected area estate, connecting ecosystems that may now be separated, and encouraging private protected areas and species conservation in exploited forests and waters.
  6. Develop policies and incentives to **produce and consume food sustainably**, fairly, and with minimum waste, supported by agriculture sectors that adopt a ‘no deforestation’ policy and promote good practices to conserve endangered species and their habitats. Such policies should de-link food production systems from globalisation processes centred on specialisation and the search for efficiency of scale but fail to recognise the non-monetary values of livelihoods and the many arguments in favour of food sovereignty. Further research is needed to identify suitable lands for sustainable agriculture and ways to avoid clearing forest in Key Biodiversity Areas and other lands important for conservation.
  7. **Identify appropriate social and economic incentives for biodiversity conservation.** This could involve integrating sustainable livelihoods and wellbeing by prioritising environmentally based approaches for mainstreaming environmental, social and governance considerations in financial systems. We noted that funding local conservation groups (including local communities) to restore habitat connections is a very cost-effective conservation investment<sup>6</sup>. We also showed that the social incentive of participatory management of terrestrial, marine, and coastal protected areas is effective in building public support and greater compliance with regulations, especially when these deliver benefits such as tourism income and addressing human-wildlife conflict. Investments in conservation need to be increased by at least two orders of magnitude in order to compete with economic pressures for unsustainable exploitation.
  8. Develop procedures to **conduct risk assessments of biodiversity impacts of new infrastructure investments**. This will require transparency in assessment procedures, data collection, and identification of costs and benefits. To ensure that these assessments lead to action, conservation scientists also need to **develop effective ways to approach political leaders**, starting with sound science but also mobilising social media and effective design in presenting data and developing convincing narratives that will build public support<sup>7</sup>.
  9. Explore ways to **promote co-existence between wildlife and humans** including by reducing and eventually eliminating the illegal wildlife trade while encouraging the sustainable use of wildlife by the local communities that conserve and care for their habitats. Such co-existence also needs to involve the people affected by human-wildlife

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<sup>6</sup> Pimm, S.L. and Jenkins, C.N. (2019). Connecting Habitats to Prevent Species Extinctions. *American Scientist* 107: 162-169

<sup>7</sup> Rose, D., Evans, M. and Jarvis, R. (2019). *Effective engagement of conservation scientists with decision-makers*. Cambridge University Press, Cambridge.

conflict in solving problems arising. This calls on them to document, respect, preserve, and build upon local conservation knowledge, capacity, institutions and leaders; and promote equity, participation and inclusiveness in decision making related to nature and natural resources.

10. **Study the variety of social actors that govern and manage protected and conserved areas** at landscape and seascape level, including transboundary conservation, with a view to presenting solid science that shows how to support effective systems, for example in both terrestrial and marine Key Biodiversity Areas. Such research should concentrate on long-standing knowledge and institutions of indigenous peoples that sustain healthy ecosystems and human wellbeing. It should also inspire programmes that include social safeguards and sustainable financing for the governance and management of protected and conserved areas that demonstrate the maintenance of biodiversity in situ, with an emphasis on the ‘territories of life’ of indigenous peoples.

Overall, the congress participants recommend that the relevant agencies and organisations give serious conservation attention and efforts, first, to the *maintenance* of existing natural habitats and ecosystems along with functioning agro-ecological systems, with no conversion to other land uses or changes to effective governance systems; second, to the *protection* of Rare, Threatened and Endangered Species; and third, to the *restoration* of fragmented marine and terrestrial habitats including through transboundary connectivity. Such measures will contribute to the inspiring vision of SCB co-founder E.O. Wilson<sup>8</sup> that half of the planet should be devoted to conservation, but we also believe that the **whole Planet Earth**, our only home, needs to adopt appropriate measures to fight the extinction crisis.

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The Society for Conservation Biology (SCB) is an international professional organization dedicated to advancing the science and practice of conserving Earth's biological diversity, and to promoting the scientific study of the phenomena that affect the maintenance, loss, and restoration of biological diversity. The Society's membership comprises scientists, resource managers, educators, government and private conservation workers and students, making up more than 3,000 members from all continents.

The International Congress for Conservation Biology is the Society's biennial meeting and a global forum for addressing conservation challenges and for presenting new research in conservation science and practice. ICCB 2019 is the Society's 29<sup>th</sup> International Congress for Conservation Biology. More than 1,300 natural and social scientists and conservation professionals and students attended the meeting from 87 nations.

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<sup>8</sup> Wilson, Edward O. 2016. *Half Earth: Our Planet's Fight for Life*. W.W. Norton, New York.