



## Science and Actions for Species Protection. Noah's Arks for the 21st Century



Proceedings of the Workshop

*Science and Actions for Species Protection. Noah's Arks for the 21st Century*

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Joachim von Braun (editor)

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### 1. Introduction

Opening and introductory remarks

Marcelo Sánchez Sorondo | Bishop Chancellor of the Pontifical Academy of Sciences

Introducing the context of biodiversity loss and its consequences as outlined by *Laudato si'*

Joachim von Braun | President of the Pontifical Academy of Sciences

### 2. Lessons and insights from natural history museums research and outreach

Innovation with participation or what has the humble shark ever done for us?

Johannes C. Vogel | Director of Natural History Museum, Berlin, Germany

Discussion

Museum Manifesto: What Future Without Nature?

Bruno David | President, Muséum National d'Histoire Naturelle, Paris, France

Discussion

Community engagement with nature

Lori Bettison-Varga | President & Director, Natural History Museum of Los Angeles County, USA

Discussion

Nature & culture

Richard W. Larivière | President, The Field Museum, Chicago, Illinois, USA

Discussion

### 3. Lessons and insights from zoological gardens research and outreach

Zoos – how did their roles evolve

Thomas Kauffels | Director, Opel-Zoo, Kronberg, Germany, and Chairman, European Association of Zoos and Aquaria (EAZA), UK

Discussion

Zoos and public conservation education

Gloria Svampa Garibaldi | President, Italian Association of Zoos and Aquaria, Zoological Director of the Education & Nature Conservation Departments of the City Museum of Zoology of Rome, Italy

Discussion

Zoos mobilising the public for legislative change

Theo B. Pagel | Zoo Director and CEO of Cologne Zoo, Germany

Discussion

Zoo-led science and the global conservation of species

Mark Pilgrim | Vice-Chair EAZA and Chester Zoo CEO, UK

The Synod on the Amazon

Cardinal Cláudio Hummes | General Rapporteur, Synod on the Amazon

Discussion

Zoos: Connecting people with Nature

Mari#a Clara Domi#nguez | Cali Zoological Foundation, Colombia

Discussion

#### **4. Lessons and insights from Botanical gardens research and outreach**

Plant conservation: Challenges and opportunities

Peter H. Raven | PAS Academician

Discussion

The Center for Plant Conservation model to urgently and effectively conserve North American plants

John R. Clark | Chair of the Center for Plant Conservation, San Diego, California, USA

Discussion

Can botanic gardens conserve all of the world's rare and threatened plant species?

Paul Smith | Secretary General of Botanic Gardens Conservation International, London, UK

Discussion

Conservation-oriented restoration as a primary solution

Sergey Volis | Kunming Institute of Botany, Cas, China

Discussion

*Erica verticillata*, from extinction to restoration

Anthony N. Hitchcock | Kirstenbosch National Botanical Gardens, SANBI, South Africa

Discussion

Plant germ plasm preservation research

Christina Walters | Seed storage, USDA-ARS National Laboratory for Genetic Resources Preservation, USA

The National Collection of Colombia's Native Palms: a testimony of love for the planet earth

Alberto Go#mez Mejia | President of Colombian Botanical Gardens Network, Colombia

Discussion

#### **5. Overarching issues: scientific, moraL / religious, and poLitical aspects of species conservation and human Behavior change**

Policies in Africa and Ethiopia for protection of nature and species

Hailemariam Desalegn Boshe | Former Prime Minister of Ethiopia and Chair of Hailemariam & Roman Foundation

Engaging Amazon villages in biodiversity conservation through bioeconomy

Virgilio Viana | Director General of Sustainable Amazon Foundation (FAS), Manaus, Brazil

Conserving the diversity of life: A moral duty and imperative for equitable development

Marco Lambertini | Director General, WWF

Publishing on the imperative of species protection: Furthering the impact science in a time of changing norms

Philippa J. Benson | Managing Editor | Science Advances, Washington, DC, USA

The importance of preservation in Jewish religion – Case study

Yehoshua Weisinger | “Bioethics and Law Initiative”, Sackler Faculty of Medicine, Tel Aviv University;  
Schlesinger Institute for Medical-Halachic Research, Shaare Zedek Hospital, Jerusalem, Israel

Plants and Nature in Bible and Koran – how respect for nature connects us

Wilhelm Barthlott | Prof. em., Nees-Institute for Biodiversity of Plants, University of Bonn, Germany

How did we become trapped in the present crisis?

Mikkel Wold | Lutheran Parish Priest at Marmorkirken, Copenhagen, Denmark

Closing remarks and Follow up

Marcelo Sánchez Sorondo | Bishop Chancellor of the Pontifical Academy of Sciences

Joachim von Braun | President of the Pontifical Academy of Sciences