

The background of the slide is a dark, dimly lit museum gallery filled with taxidermy specimens. In the foreground, a large brown bear stands on its hind legs, looking towards the right. To its left, a tiger is visible, and further back, several deer with large antlers are mounted on the wall. The overall atmosphere is that of a natural history museum.

Rešimo naravoslovne muzeje

prof. dr. Boris Kryštufek

muzejski & znanstveni svetnik

Prirodoslovni muzej Slovenije

Kustodiat za vretenčarje

Miracle on the prairie: The development of the Sam Noble Oklahoma Museum of Natural History

MICHAEL MARES*

Resumo

Em 1983, o Museu da Universidade de Oklahoma, nos Estados Unidos, decidiu iniciar uma longa luta por um novo edifício, visto que o centenário Museu se encontrava instalado em antigos estábulos e celeiros. A Universidade foi irregular e inconstante no seu apoio ao projecto. Contudo, uma estratégia multifacetada e o envolvimento directo da comunidade local conduziram ao sucesso do empreendimento, após 17 difíceis anos em que a paciência e a tenacidade foram determinantes.

Abstract

In 1983 the University of Oklahoma's museum began a struggle for a new building. The century-old museum was housed in barns and stables. Support from the University was mixed. Grassroots efforts and a multifaceted strategy led to a successful result in 2000, after 17 difficult years requiring patience and tenacity.

Miracle on the prairie: The development of the Sam Noble Oklahoma Museum of Natural History

MICHAEL MARES*

Resumo
Leta 1983 je muzej Univerze v Oklahomi začel boj za novo stavbo. Stoletje star muzej je bil nameščen v skednjih in hlevih. Podpora Univerze je bila mešana. Množična prizadevanja in večplastna strategija sta po 17 težkih letih, prežetih s potrpljenjem in odločnostjo, obrodila sadove.

In 1983 the University of Oklahoma's museum began a struggle for a new building. The century-old museum was housed in barns and sheds. Support from the University was mixed. Grassroots efforts and a multifaceted strategy led to a successful result in 2000, after 17 difficult years requiring patience and tenacity.

NEWS FEATURE



The endangered dead

The billions of specimens in natural-history museums are becoming more useful for tracking Earth's shrinking biodiversity. But the collections also face grave threats.

BY CHRISTOPHER KEMP

“We see a decline in many collections in many countries,” says Mares. “If a collection is sinking, no one will say it is.” The concern is that administrators will get rid of collections if museum personnel point out problems, he says. “It’s too dangerous. They survive by hiding.”

**„Propadajo številne zbirke v mnogih državah.
Ko se zbirka potaplja, o tem nihče ne govori“**
“We see a decline in many collections in many countries,” says Mares. “If a collection is sinking, no one will say it is.” The concern is that administrators will get rid of collections if museum personnel point out problems, he says. “It’s too dangerous. They survive by hiding.”

„Prenevarno je. Preživijo s skrivanjem.“



**zunANJI in
notranji
muzej**



Naturhistorisches Museum Wien



American Museum of Natural History, New York



Turdus pilaris 1793

Museum A. Koenig, Bonn





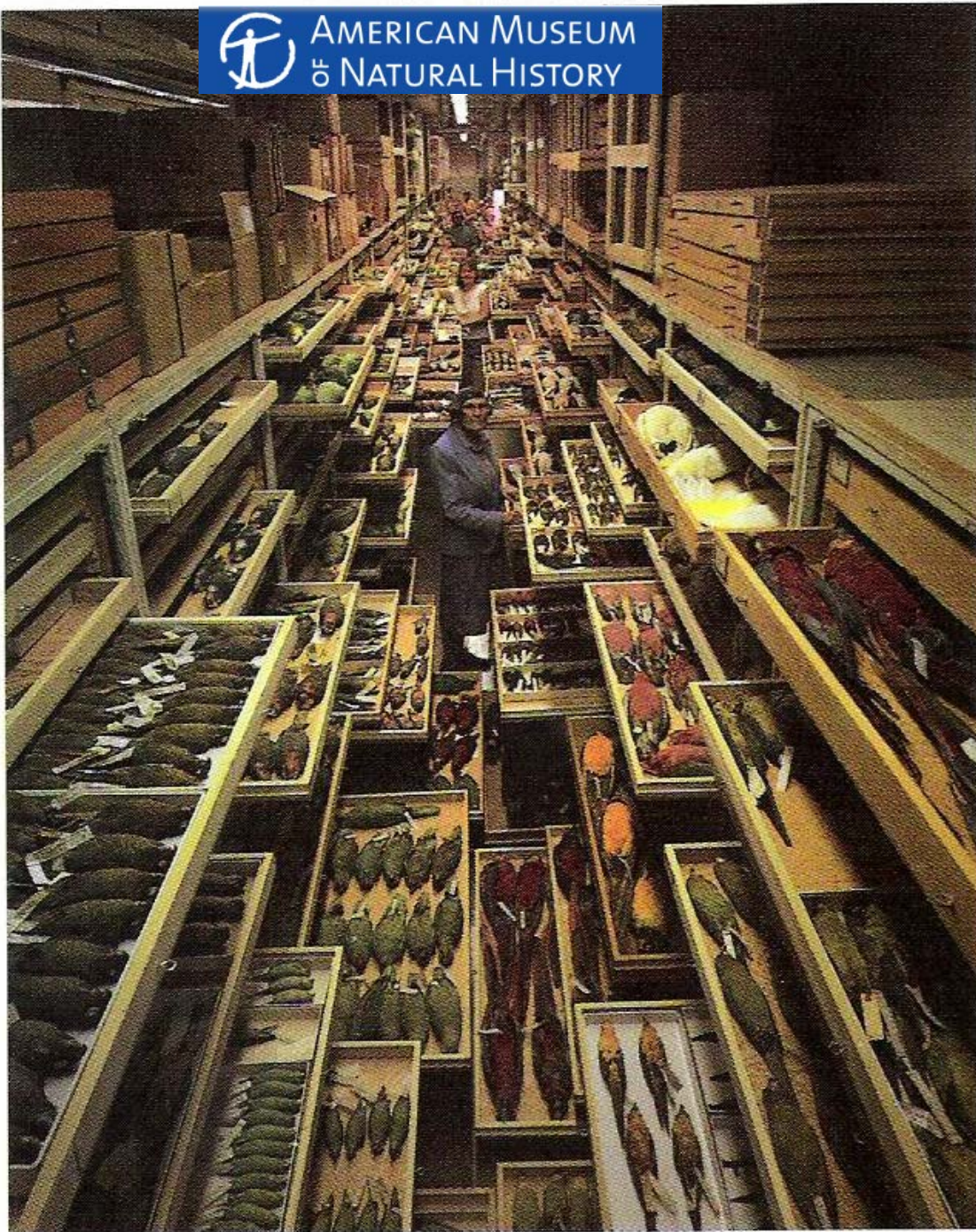
notranji muzej



Zoološki muzej
Novosibirsk



AMERICAN MUSEUM
OF NATURAL HISTORY



10 milijonov ptic



5 milijonov sesalcev

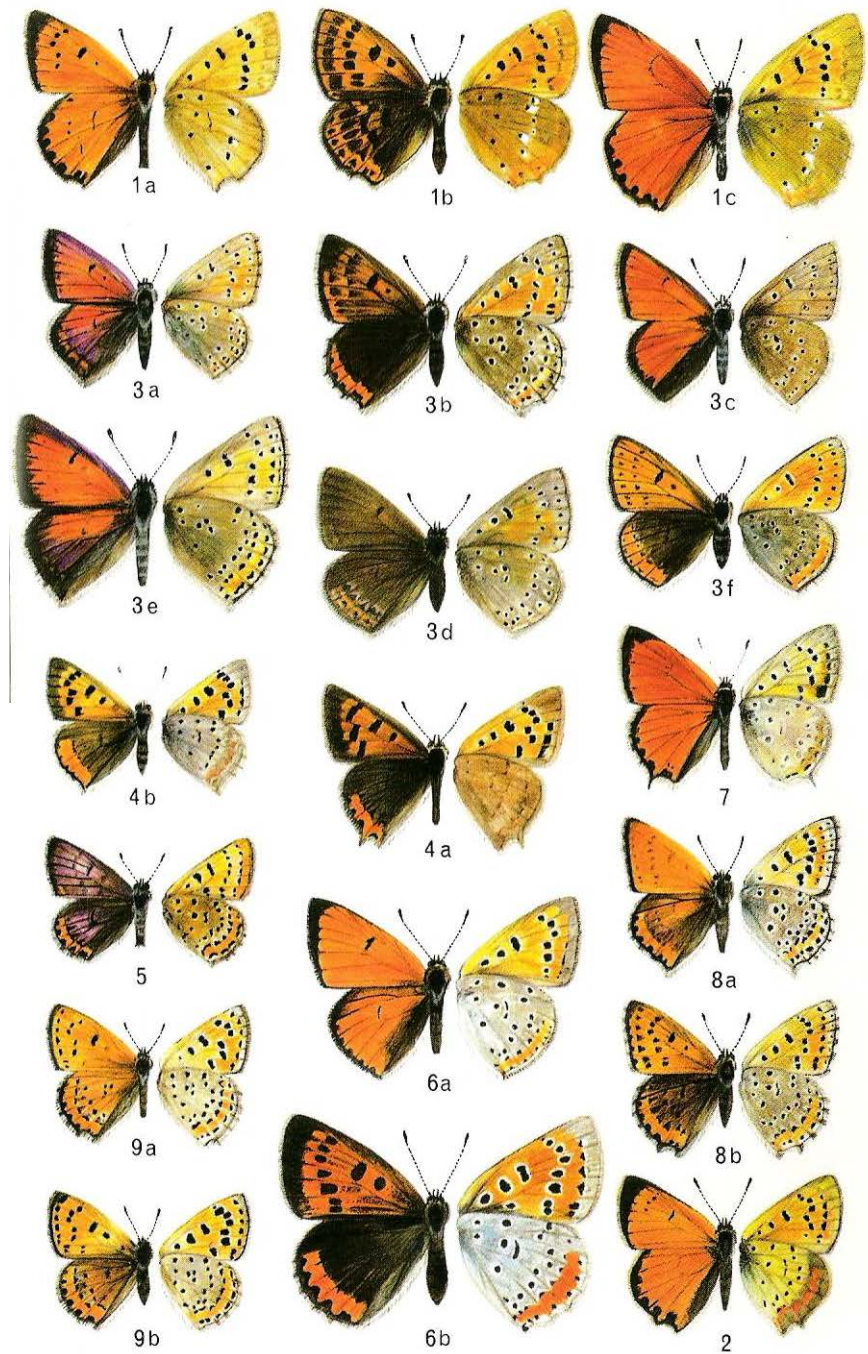
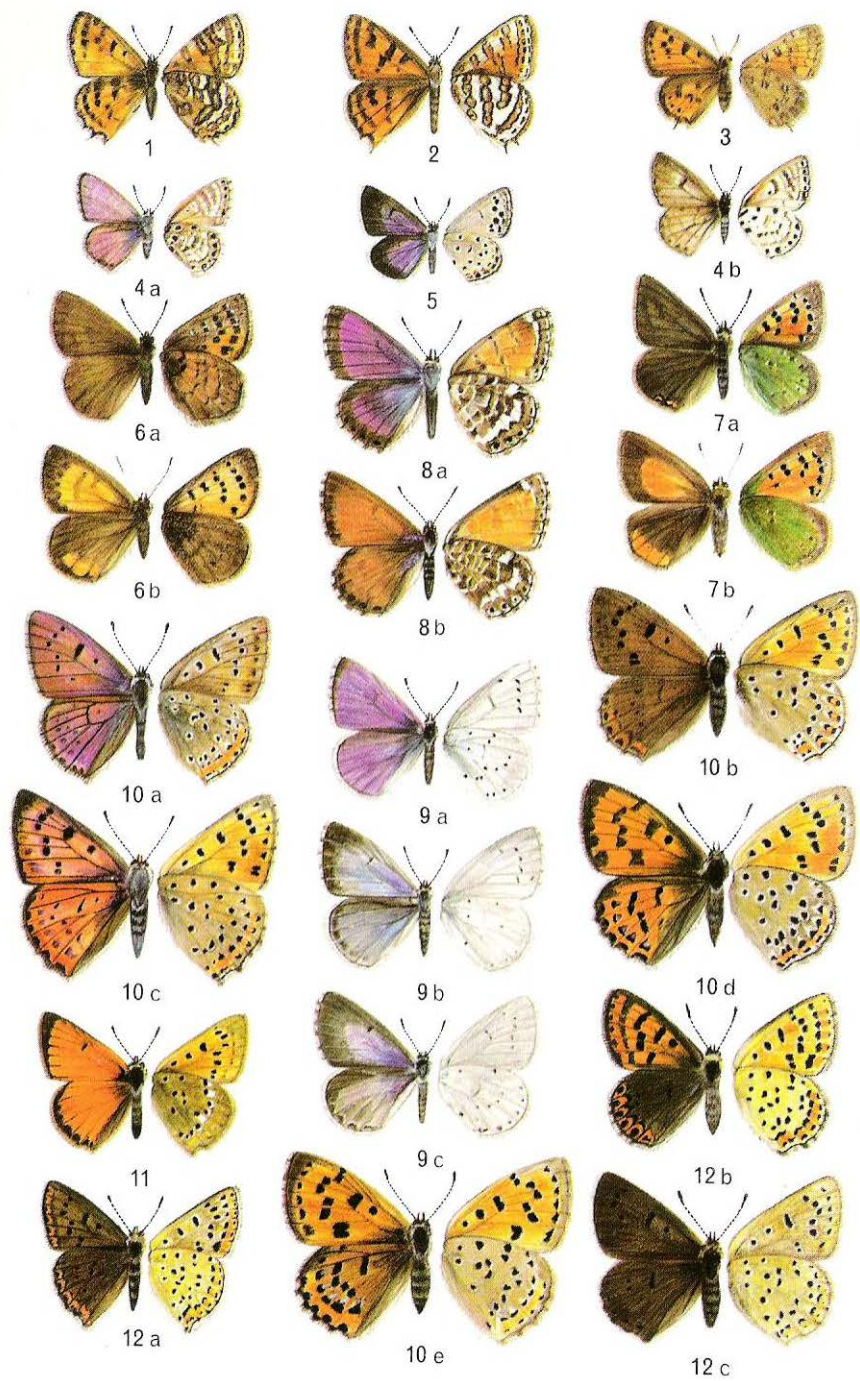


Linne'



Karl Linne

1707-1778



CAROLI LINNÆI

EQUITIS DE STELLA POLARI,
ARCHIATRI REGII, MED. & BOTAN. PROFESS. UPSAL.;
ACAD. UPSAL. HOLMENS. PETROPOL. BEROL. IMPER.
LOND. MONSPEL. TOLOS. FLORENT. SOC.

SYSTEMA
NATURÆ

PER

REGNA TRIA NATURÆ,

SECUNDUM

CLASSES, ORDINES,
GENERA, SPECIES,

CUM

CHARACTERIBUS, DIFFERENTIIS,
SYNONYMIS, LOCIS.

TOMUS I.

EDITIO DECIMA, REFORMATA.

Cum Privilegio S.æ R.æ M.æ Sveciæ.

HOLMIÆ,

IMPENSIS DIRECT. LAURENTII SALVII,

1758.

O JEHOVA

Quam ampla sunt Tua Opera!

Quam sapienter Ea fecisti!

Quam plena est Terra possessione Tua!

CAROLI LINNÆI

EQUITIS DE STELLA POLARI,
ARCHIATRI REGII, MED. & BOTAN. PROFESS. UPSAL.;
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O BOG

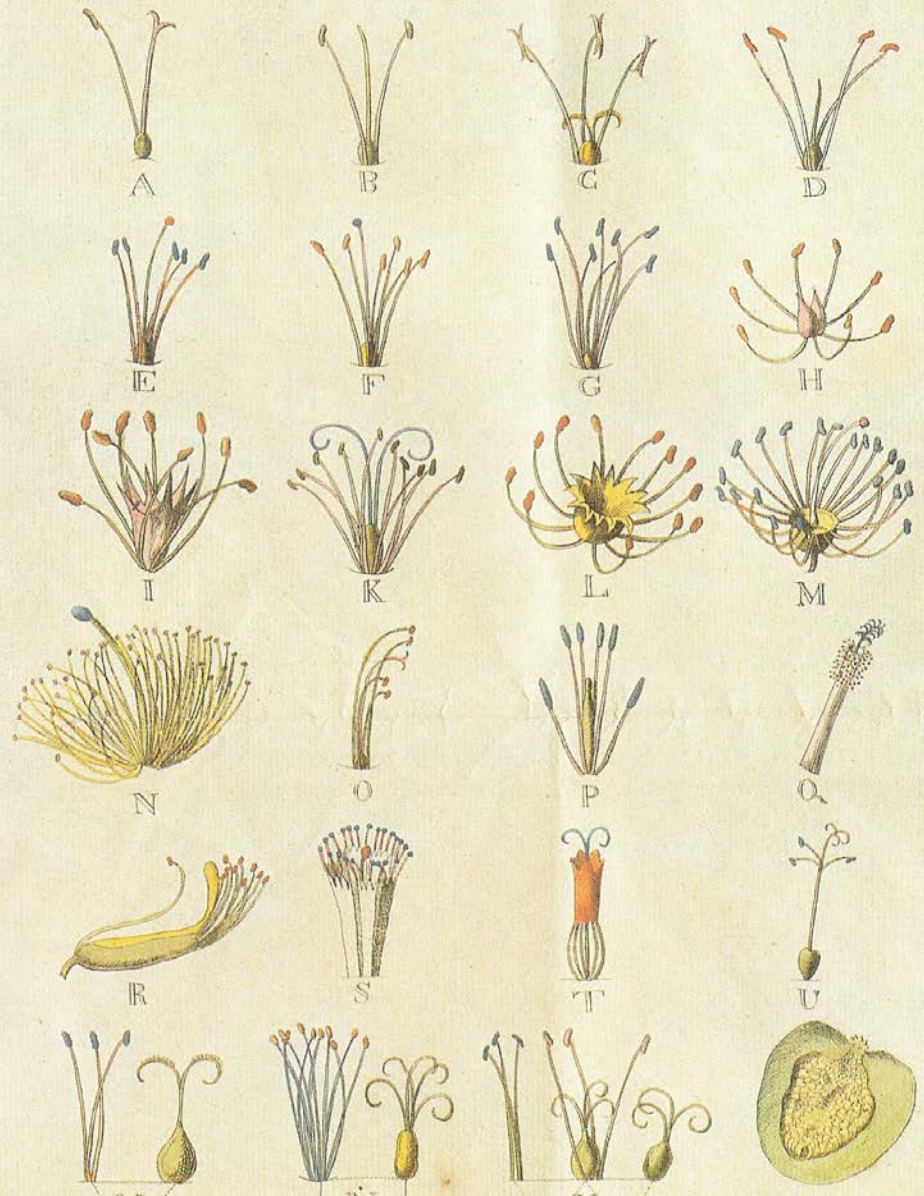
Kako obsežna so tvoja dela!

Kako modro so jih naredil!

Kako polna je Zemlja tvojih posesti!

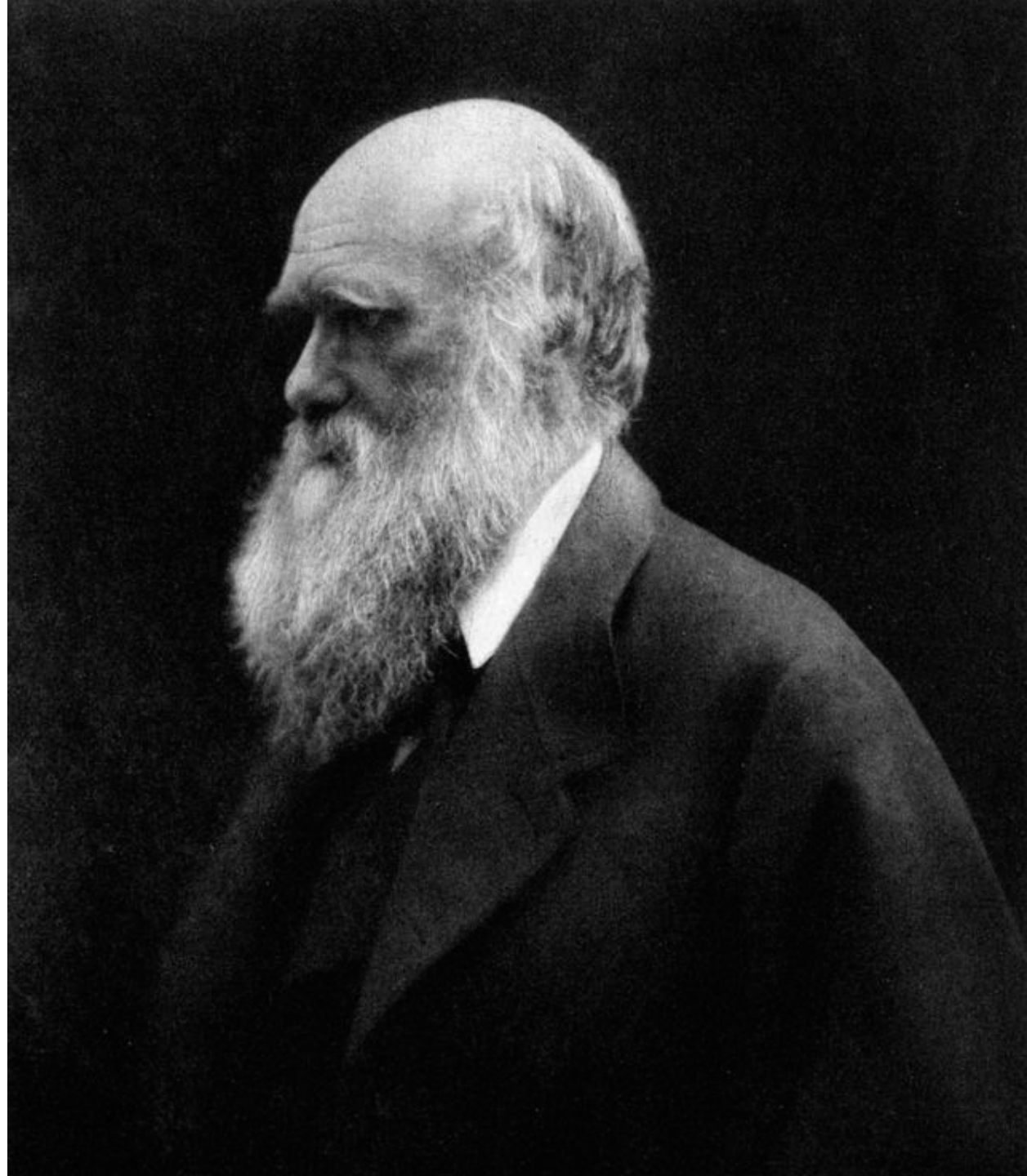
Parafraziran Psalm 103

Clariss: LINNÆI. M. D.
METHODUS plantarum SEXUALIS
in SYSTEMATE NATURÆ
descripta



Charles Darwin

1809-1882



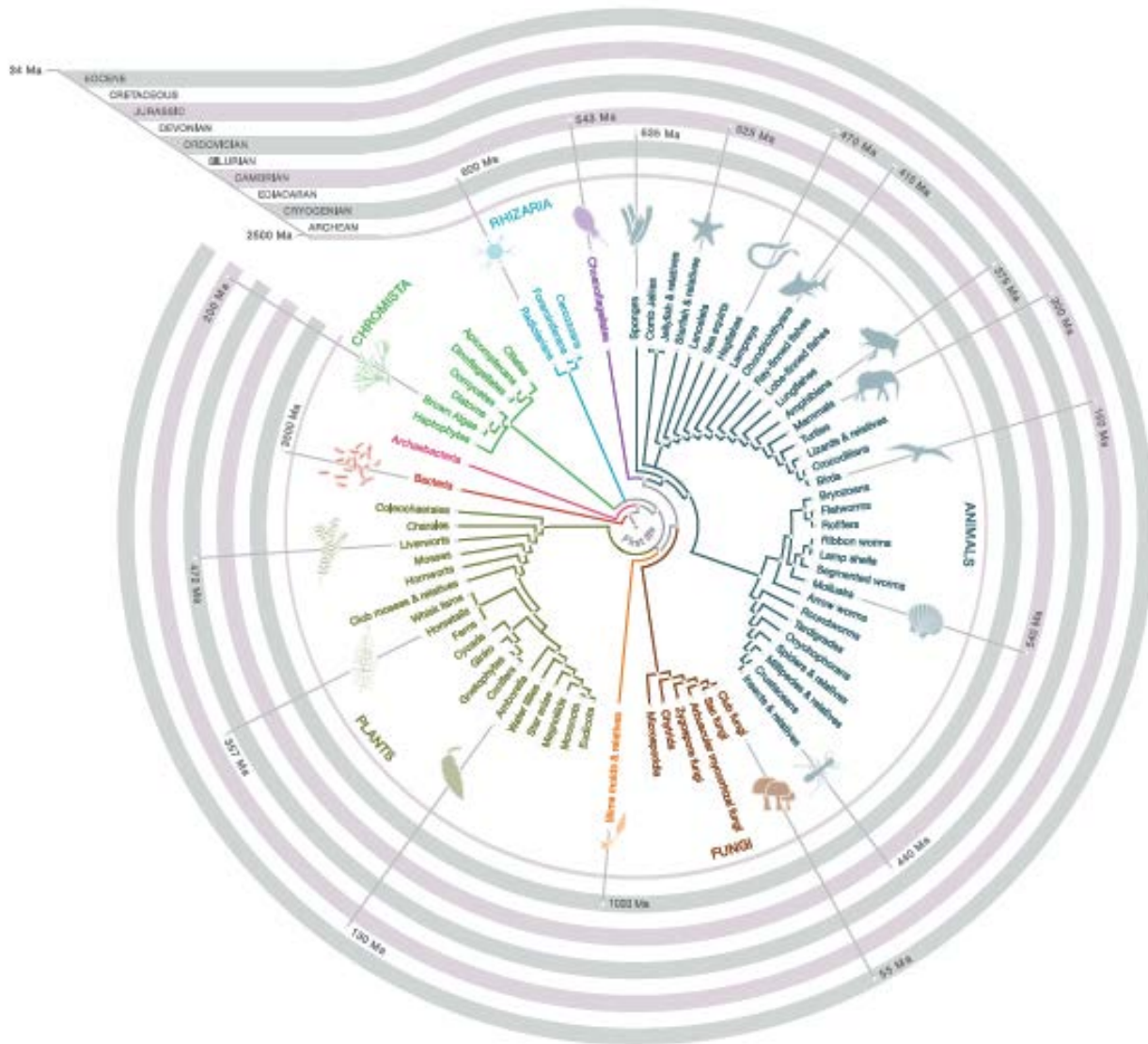
Transmutation of Species 1837

I think



There between A & B. various
sort of relation. C + B. The
first gradation, B & D
rather greater distinction
than genera would be
formed. - bearing relation

Drevo življenja



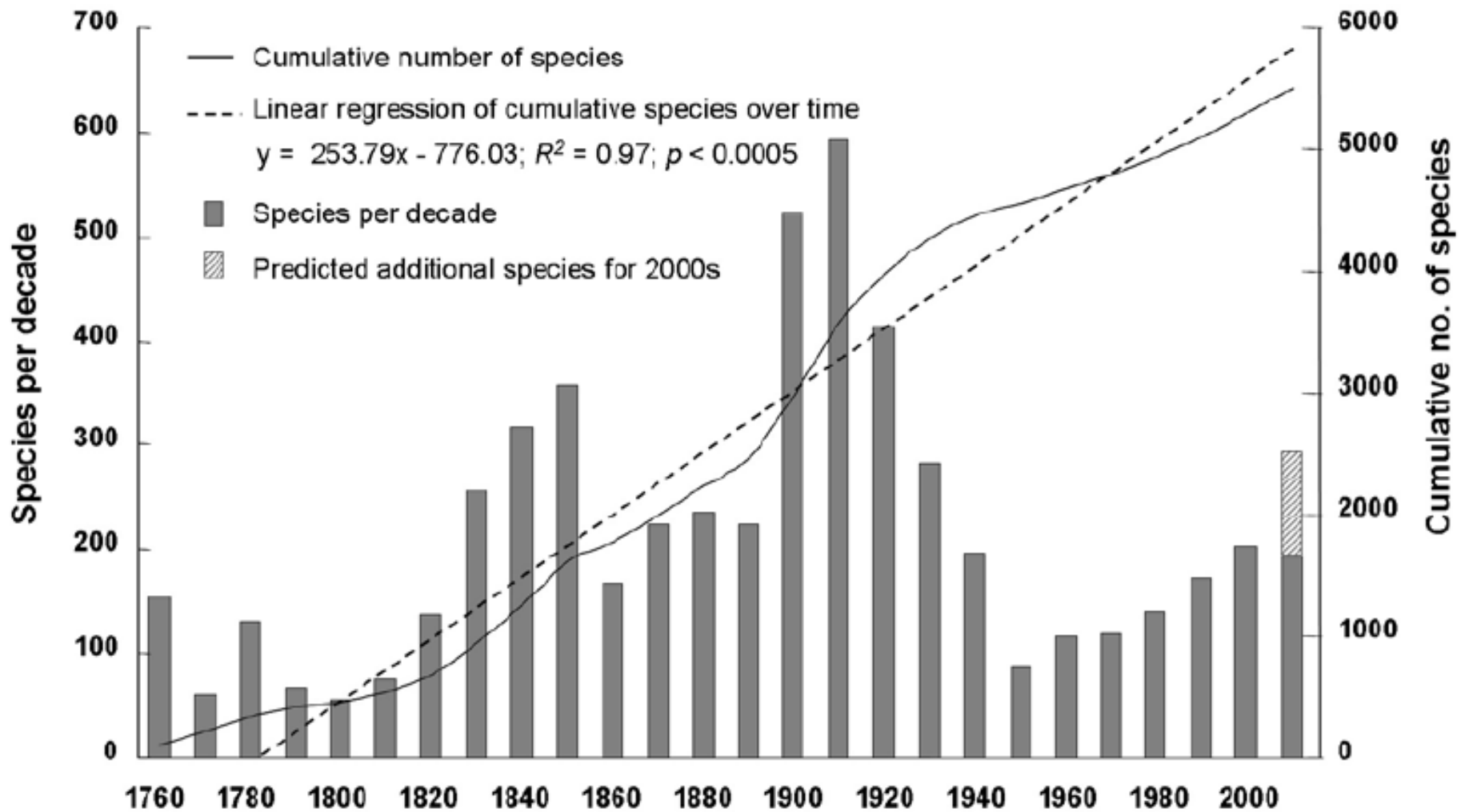


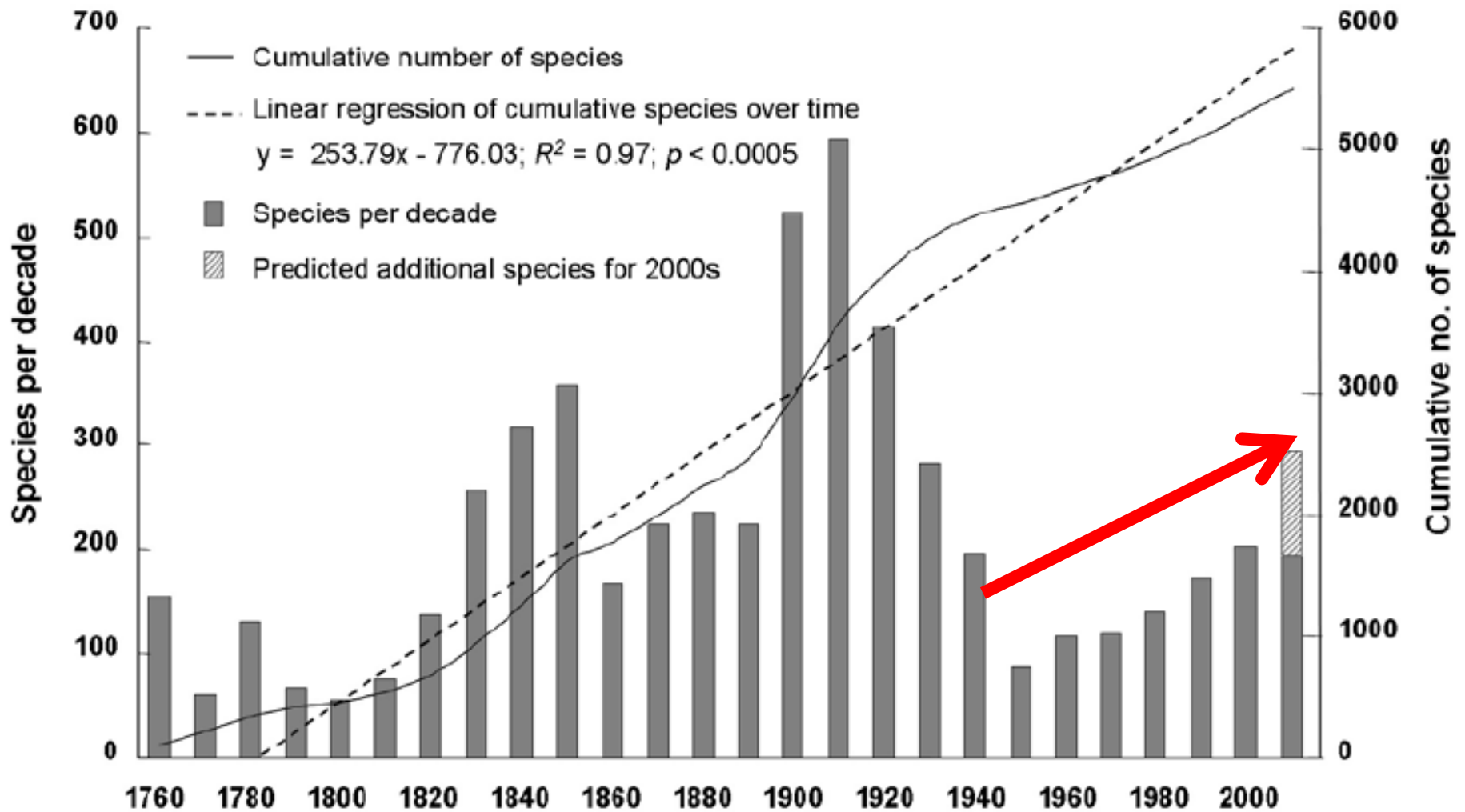
BIODIVERZITETA

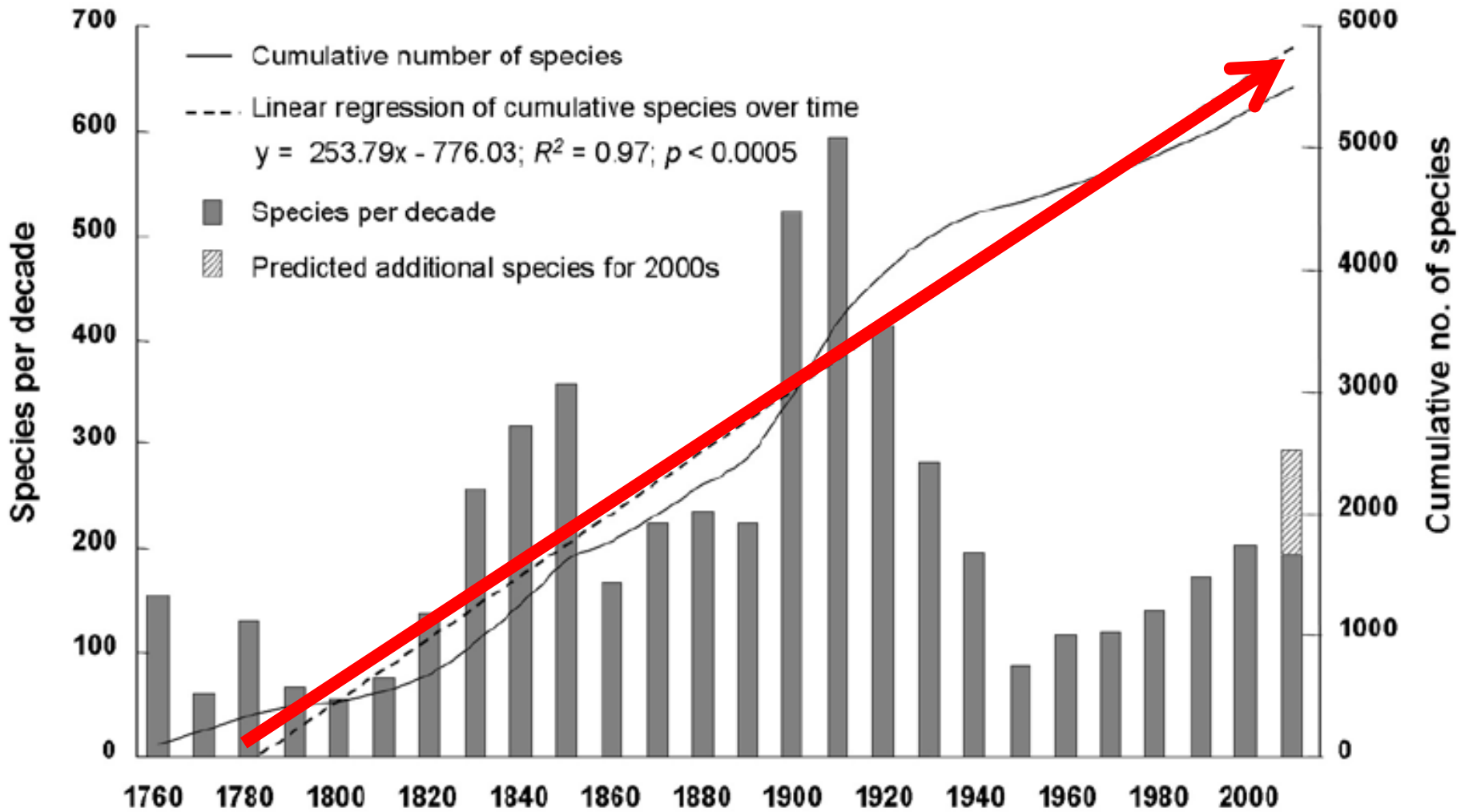


Znanih vrst
2 milijona

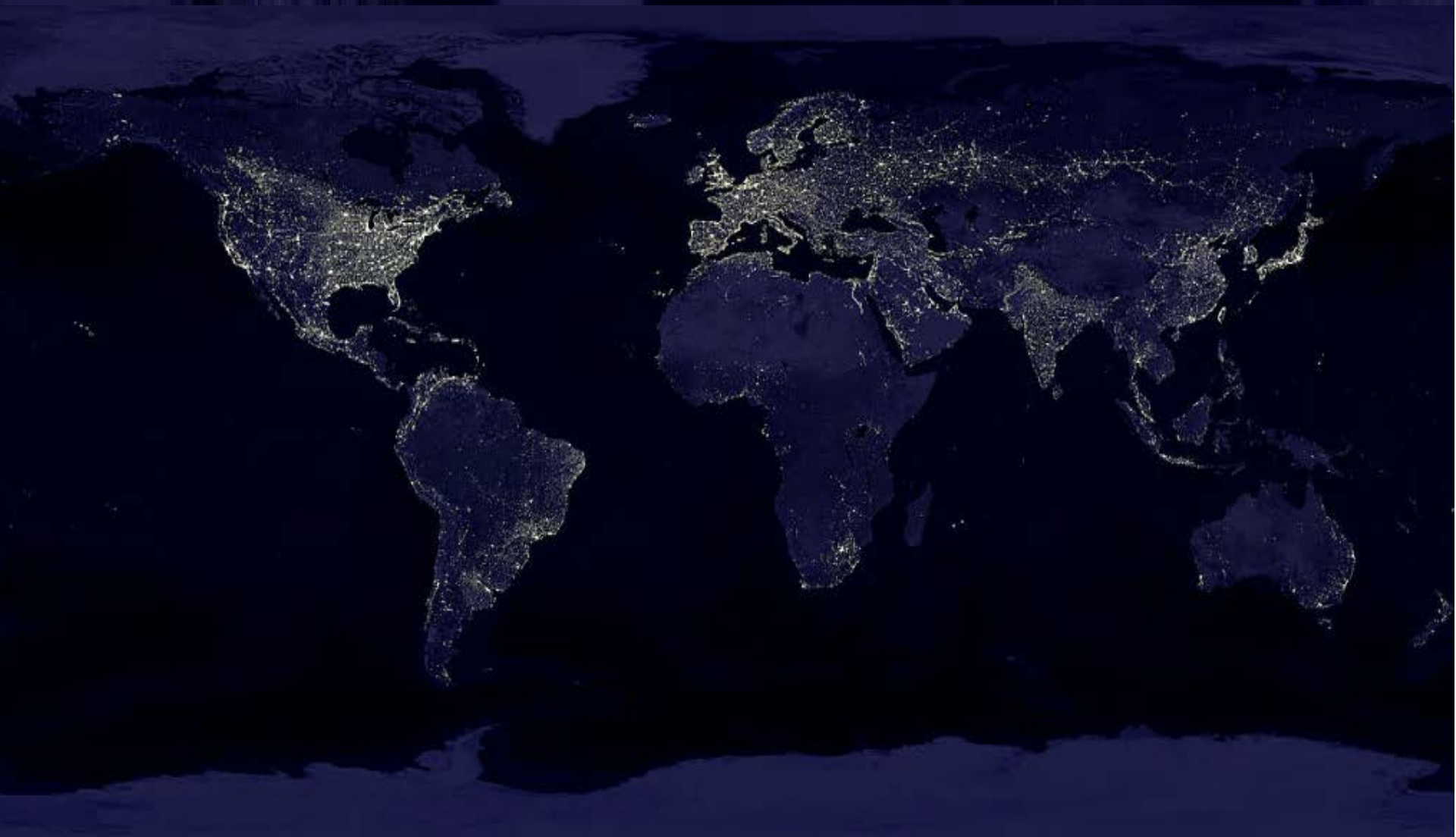
Pričakovanih vrst
10–100 milijonov







ANTROPOCEN







Zoološki Institut, Rabat









Naturhistorisches
Museum Wien

Zoološka zbirka
Karlova Univerza, Praga





Naturhistorisches
Museum Wien

10
MUSEUM
WUEN

Dasyurus viverrinus
Linné, Fauna Svecica, 1760, p. 10, t. 1, f. 10

DASYURUS
VIVERRINUS
LINNÉ, 1760

26522 / ST
DASYURUS
VIVERRINUS

ST 26522
DASYURUS
VIVERRINUS

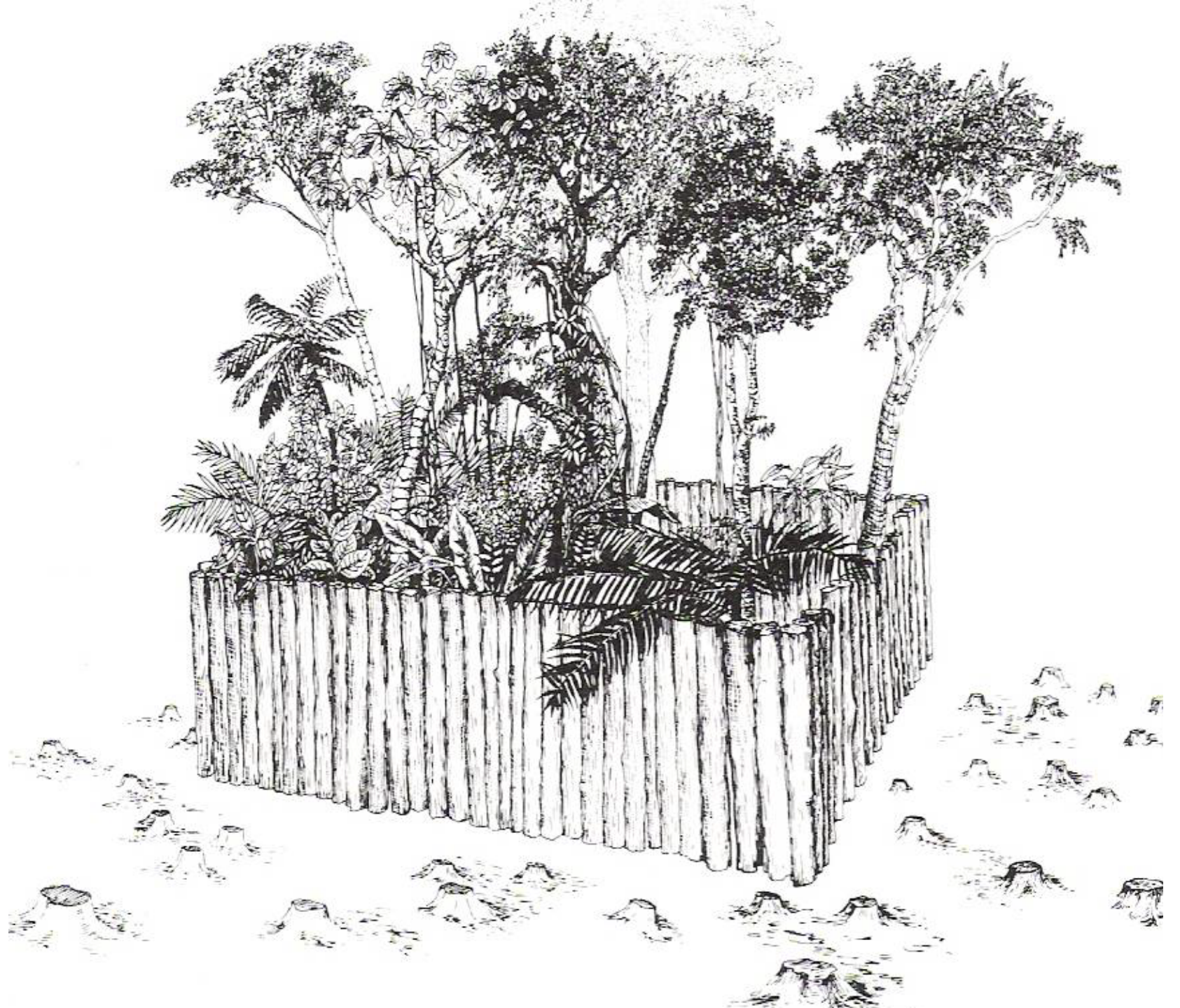
Zoološka zbirka
Karlova Univerza, Praga





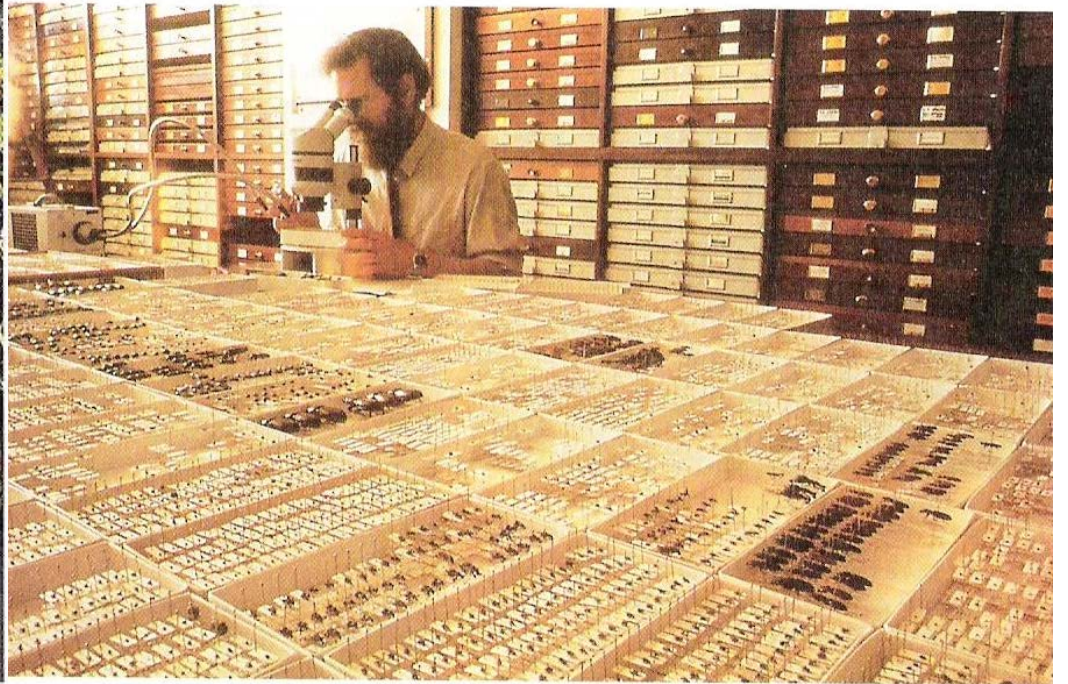
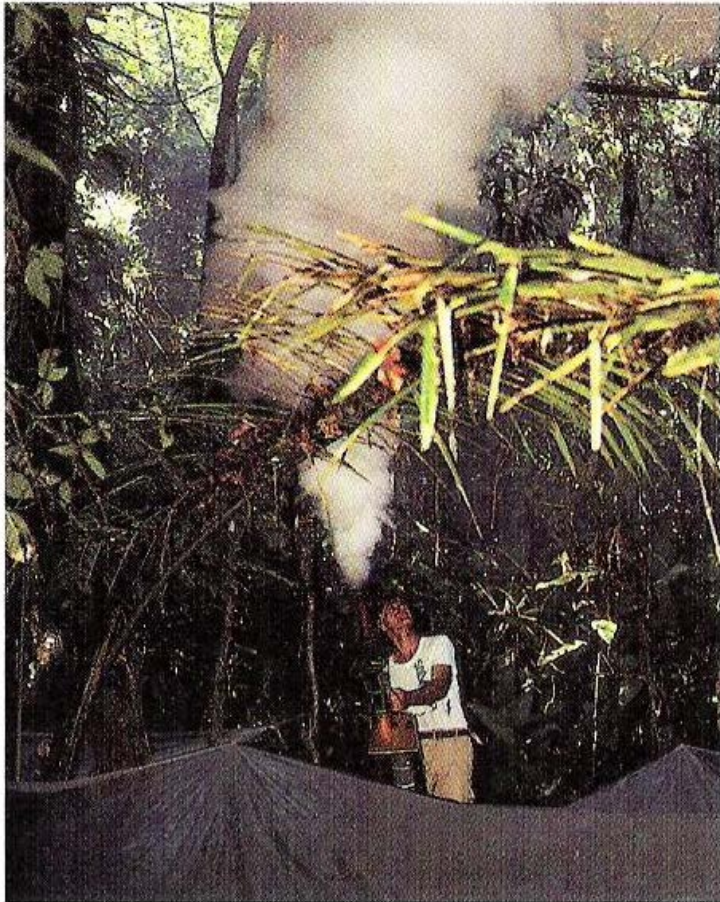


“This is the repository of all life that we know has existed.”



Grat Fish River Nature Reserve, Južna Afrika (40.000 ha)







Italian natural history museums on the verge of collapse?

Franco Andreone¹, Luca Bartolozzi², Giovanni Boano³, Ferdinando Boero⁴,
Marco A. Bologna⁵, Mauro Bon⁶, Nicola Bressi⁷, Massimo Capula⁸,
Achille Casale⁹, Maurizio Casiraghi¹⁰, Giorgio Chiozzi¹¹, Massimo Delfino¹²,
Giuliano Doria¹³, Antonio Durante¹⁴, Marco Ferrari¹⁵, Spartaco Gippoliti¹⁶,
Michele Lanzinger¹⁷, Leonardo Latella¹⁸, Nicola Maio¹⁹, Carla Marangoni⁸,
Stefano Mazzotti²⁰, Alessandro Minelli²¹, Giuseppe Muscio²², Paola Nicolosi²³,
Telmo Pievani²¹, Edoardo Razzetti²⁴, Giorgio Sabella²⁵, Marco Valle²⁶,
Vincenzo Vomero⁸, Alberto Zilli²⁷

Ulisse Aldrovandi
(1522 –1605)



Muzej Torino



18. stoletje
Kapt. James Cook



Save the museums

Italy's curators must band together to preserve their valuable collections.

Fausto Barbagli's first curation job was at the University of Pavia in northern Italy. It was the end of the 1990s, and the university was finally starting to pay attention to its valuable but long-neglected zoological collections.

Barbagli is passionate about birds, so he was distressed to find that the labels had fallen off 700 precious taxidermied specimens, devastating their scientific value. A well-intentioned but untrained staff member had decided to spruce up the collection, gifted to the university three decades earlier. He had painted the birds' pedestals — onto which species names had been inscribed — and had fixed neatly typed labels to their feet with rubber bands. As any professional curator knows, rubber perishes.

This story is emblematic of what has happened in historic scientific collections in universities and museums around Italy — some of

Save the museums

Italy's curators must band together to preserve

their valuable collections

“Museologists estimate that at least one-third of all biological specimens have been lost.”

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Barbagli is passionate about birds, so he was distressed to find that many of the 700 specimens he had just started processing were missing their scientific value. A well-intentioned but untrained staff member had decided to spruce up the collection, gifted to the university decades earlier. He had pinned the bird specimens — onto what he had assumed had been uncracked and unadorned neatly typed labels to their feet with rubber bands. As any professional curator knows, rubber perishes.

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Save the museums

Italy's curators must band together to preserve their valuable collections

“Muzeologi ocenjujejo, da je najmanj tretjina vseh bioloških primerkov uničenih.”

Fausto Barbagli's first curation job was at the University of Pavia in northern Italy. In the head of the 1990s, it was finally starting to pay attention to its valuable biological zoological collections.

Barbagli is passionate about birds, so he was distressed to find that the curator had decided to spruce up the collection, gifted to the university three decades earlier. He had perched the birds' pedestals — onto which specimens had been introduced — and had fixed neatly typed labels to their feet with rubber bands. As any professional curator knows, rubber perishes.

This story is emblematic of what has happened in historic scientific collections in universities and museums around Italy — some of

Correspondence

Rescue Eastern Europe's collections

Boris Kryštufek *Slovenian
Museum of Natural History,
Ljubljana, Slovenia.*

Nataliya Abramson *Zoological
Institute, Russian Academy of
Sciences, St Petersburg, Russia.*

Dražen Kotrošan *National
Museum, Sarajevo, Bosnia and
Herzegovina.*



MUZEJ JE ZATVOREN
THE MUSEUM IS CLOSED

MUSEUM

STIDITE SE!

Landesmuseum für Bosnien 1888



Arthur Reiser

Emberiza cia
10.203 - 10.206,



5-5



58.



58-1



58-2



58-3

Viktor Apfelbeck







- **Kunstkammer 1715**
- **Katalog zbirk 1742**
- **Zoološki muzej 1832**



- Kunstkammer 1715
- Katalog z
- Zoološki





- Kunstkammer 1715
- Katalog zbirk 1742
- Zoološki muzej 1832



(*Phascodon* *...*)

Taxidermy

№ 23652 *Phascodon* *...*

1918

№ 23652

Taxidermy

Pellaeomys meridiensis ulchagaiticus
Hall, 1910

№ 23652

Zoological Institute
Academy of Sciences
Leningrad, U.S.S.R.

Зоологический институт
Академии Наук СССР
Ленинград, СССР



№ 23652
1918



№ 23652 - 23653



1852









Mamut z Berezovke 1901





< **CRITICALLY
ENDANGERED** >
CR



Image © 2015 CNES / Astrium

GO







Correspondence

Rescue Eastern Europe's collections

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Museum, Sarajevo, Bosnia and
Herzegovina.*

Prirodoslovni muzej Slovenije

Kranjski deželni muzej 1821



1842

FAUNA

der in

Krain bekannten Säugethiere,
Vögel,
Reptilien und Fische.

Nach Cuvier's System

geordnet,

mit Abbildungs-Citaten und Angabe des
Vorkommens.

Nebst

einem vollständigen Register

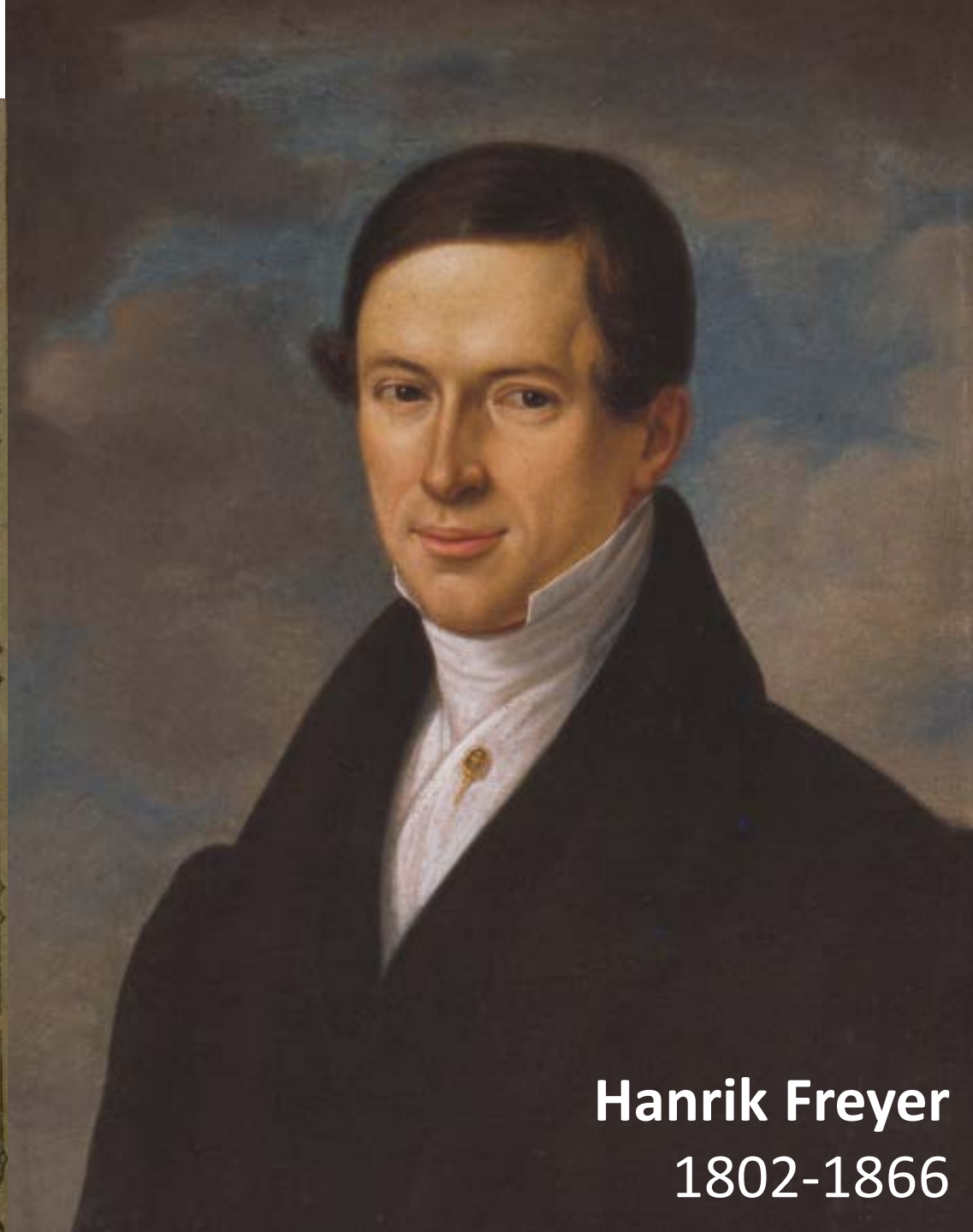
der

lateinischen, deutschen und krainischen oder slavischen
Namen.

Von

Heinrich Freyer,

Magister Pharmaciae, und Custos des Landes-Museums
zu Laibach.



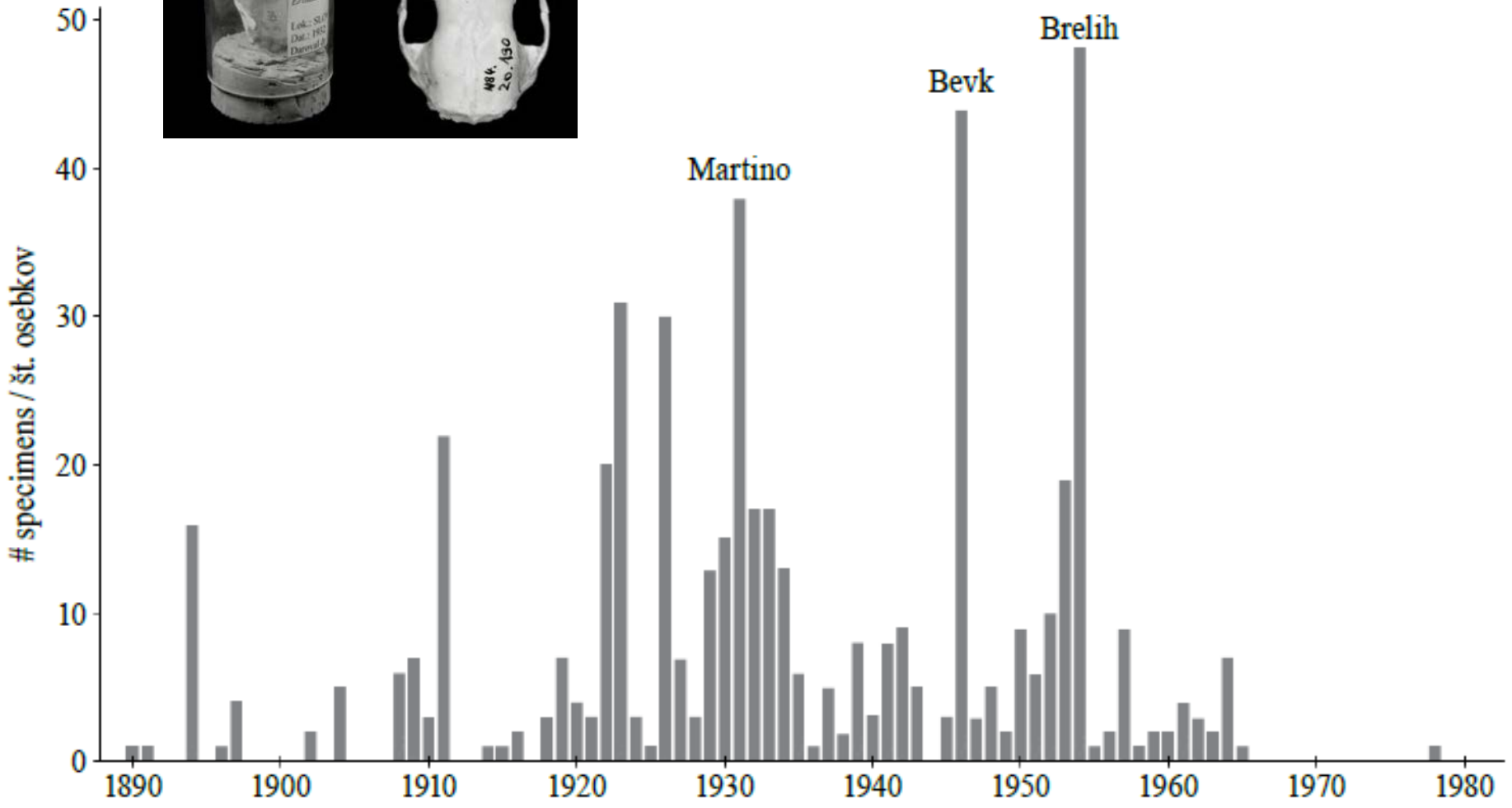
Hanrik Freyer
1802-1866

Dragotin Dežman
1821-1889



Fran Kos
1885-1956





GLASNIK

MUZEJSKEGA DRUŠTVA ZA
SLOVENIJO

LETNIK VII. VIII

B

PRIRODOSLOVNI DEL

LJUBLJANA

1926-1927

Odsek za varstvo prirode in prirodnih spomenikov.

Spomenica,

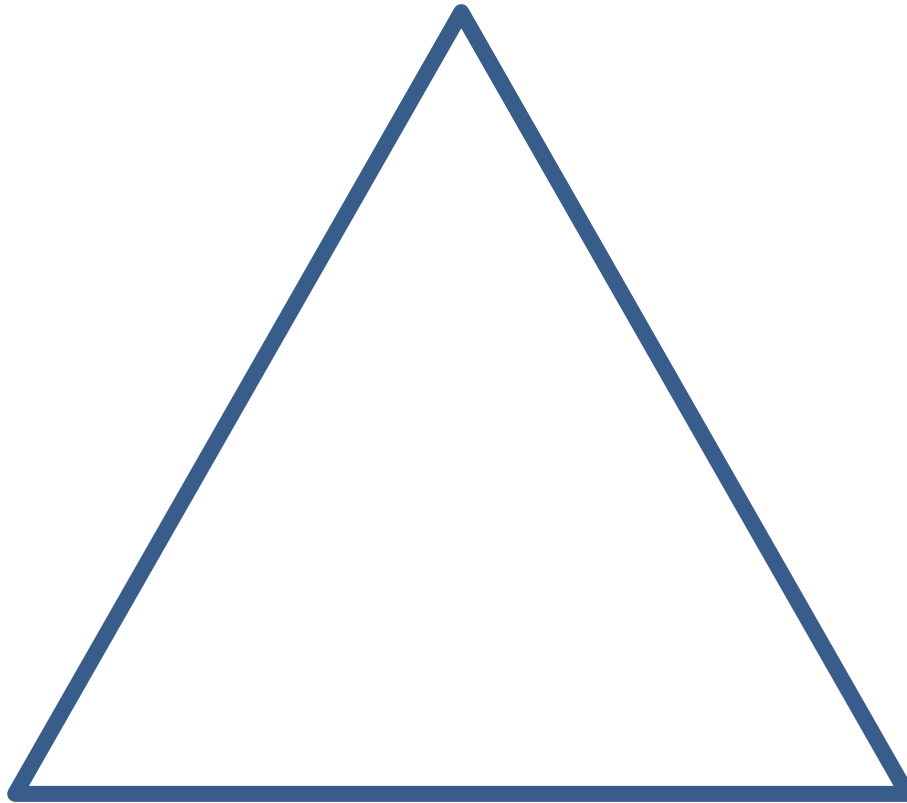
ki jo je predložil odsek za varstvo prirode in prirodnih
spomenikov 20. januarja 1920. pokrajinski vladi za Slove-
nijo v Ljubljani.

V Ljubljani, dne 20. januarja 1920.

Dr. St. Beuk,

kot t. č. predsednik Odseka za varstvo prirode Muz. dr. v Ljubljani.

INSTITUT
znanost



MUZEJ
kultura

UNIVERZA
izobraževanje

naravoslovna zbirka = kulturna dediščina



A black and white photograph of a museum gallery. The room is filled with glass display cases, each containing various animal skeletons. The skeletons are arranged on shelves within the cases, showing different species and postures. The lighting is focused on the exhibits. Overlaid on the center of the image is the text "zunanji muzej" in a bold, yellow, sans-serif font.

zunanji muzej

No.	Name - Date	Nuptial Dress	Local Number Died and Cause	Date received July or Aug 1945	Specimen (numbered in relation to parent no.)	A B C	Color Mark	Other marks
196	<i>Spizella monticola</i> <i>Spizella monticola</i> <i>Spizella monticola</i>							
(1945)								
197	<i>Spizella monticola</i> 1945, 1946, 1947 <i>Spizella monticola</i>	Japan 1945	1	1945	1945 (1946)			
198	<i>Spizella monticola</i> 1945	Japan 1945	1	1945	1945		with yellow	1945
199	<i>Spizella monticola</i> 1945	Japan 1945	1	1945	1945		with yellow	1945
(1946)								
200	<i>Spizella monticola</i> 1946	Japan 1946	1	1946	1946			
201	<i>Spizella monticola</i> 1946	Japan 1946	1	1946	1946		with yellow	1946
202	<i>Spizella monticola</i> 1946	Japan 1946	1	1946	1946		with yellow	1946
203	<i>Spizella monticola</i> 1946	Japan 1946	1	1946	1946		with yellow	1946

194	195
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278	279
280	281
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296	297
298	299
300	301

138	Lepus timidus Gelbfuchs	...
139	Lepus timidus Gelbfuchs	...
140	Lepus timidus var. Gelbfuchs	...
141	Lepus [timidus] Gelbfuchs jünger	...
142	Lepus variabilis
143	Lepus variabilis
144	Lepus variabilis



LEPUS TIMIDUS L. - PLANINSKI ZAJEC



Bengalski kraljevi tiger,
ustreljen l. 1935. v Teraju pod Himalajo, dolg 3·20 m,
dar slovenskih misijonarjev misijonskemu muzeju
v Ljubljani, kjer si ga lahko ogledate (Zrinjskega
cesta 9) pri cerkvi sv. Jožefa

Raziskovanje

Okolje

Izobraževanje in vzgoja

Raziskovalni resor

sciencemag.org **SCIENCE**

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LETTERS

Edited by Jennifer Sills

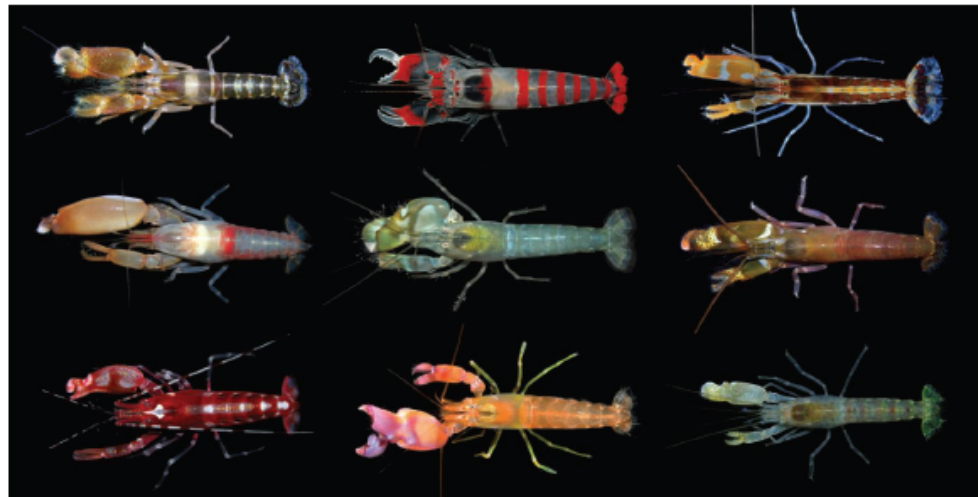
Specimen collection: An essential tool

COLLECTING BIOLOGICAL specimens for scientific studies came under scrutiny when B. A. Minteer *et al.* ["Avoiding (re)extinction," *Perspectives*, 18 April, p. 260] suggested that this practice plays a significant role in species extinctions. Based on a small number of examples (rare birds, frogs, and a few plants), the authors concluded that collection of voucher specimens is potentially harmful to many species, and that alternatives—photographs, audio recordings and nonlethal tissue sampling for DNA analysis—are sufficient to document biological diversity.

The isolated examples that Minteer *et al.* cited to demonstrate the negative impact of scientific collecting have been carefully analyzed, and none of these extinction events can be attributed to that cause (1–3). For example, only about 102 Great Auk specimens

biodiversity is hidden deep in its habitat (see image)]. Moreover, identification is often not the most important reason to collect voucher specimens. Studies of morphological diversity and its evolution are impossible without whole specimens. Preserved specimens also provide verifiable data points for monitoring species health, distribution, and phenotypes through time. Both historical and new collections played a key role in understanding the spread of the chytrid fungus infection, one of the greatest current threats to amphibians (5). The decision to ban dichlorodiphenyltrichloroethane (DDT)

distract from the primary causes of modern extinction: habitat degradation and loss, unsustainable harvesting, and invasive species (10). It is important to distinguish protecting the lives of individuals from conserving populations and species. Individuals are lost every day to predation, natural death, and anthropogenic factors, hence it is the populations we try to save. Halting collection of voucher specimens by scientists would be detrimental not only to our understanding of Earth's diverse biota and its biological processes, but also for conservation and management efforts. Species descriptions, biodiversity



MOLECULAR ECOLOGY

Molecular Ecology (2013) 22, 5966–5968

Genomics and museum specimens



MOLECULAR ECOLOGY

Molecular Ecology (2013) 22, 5966–5968

Genomics and museum specimens



MOLECULAR ECOLOGY

Molecular Ecology (2013)

doi: 10.1111/mec.12516

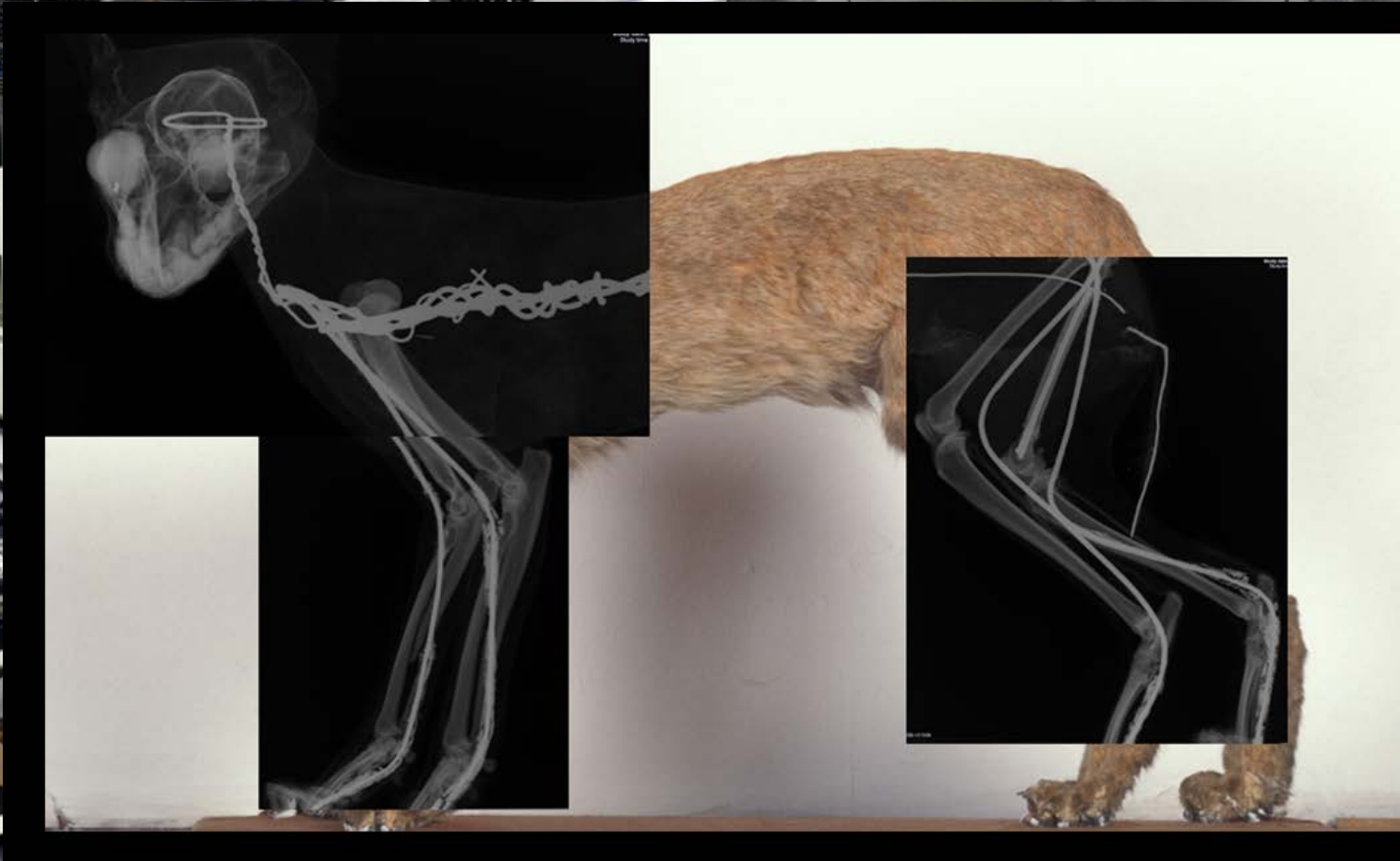
Unlocking the vault: next-generation museum population genomics



397-387

3730X DNA Analyzer
397

377-386



Okoljski resor

Museum collections: Mining the past to manage the future

Karen R. Lips¹

Department of Biology, University of Maryland, College Park, MD 20742

We are in the midst of the sixth mass extinction (1), and we are watching species disappear faster than we can describe them (2). Three of the major drivers of extinction, emerging infectious diseases (3), invasive species (4), and threats from climate change (5), are especially difficult to address because of their rapid spread, broad geographic effects, and widespread impacts on entire classes (6) or ecosystems (7). We urgently need a better catalog of the abundance and distribution of species on the planet and a broader understanding of biotic (e.g., parasites, diseases, seed dispersal, pollination, predation, and competition)



Fig. 1. An undescribed species of *Diasporus* from El Cope, Panama.

spread of *Bd* in these areas (13, 14).

of *Bd* and determine whether its spread has negatively affected the distribution of amphibian species (19) and if it has caused a corresponding increase in the distribution of *Jliv*. More generally, knowing where *Bd* and *Jliv* occur today, how they interact, and where they occurred in the past will help us understand the spread of both across the landscape and may help us keep *Bd* out of as yet uninfected areas such as Madagascar and Papua New Guinea.

However, despite the promising applications of this (8) tool, we are still limited in quantifying the true effect of *Bd* on amphibian biodiversity, and this hampers effective conservation efforts (Fig. 1). We

1926





Izobraževanje in vzgoja



Izobraževanje in vzgoja





1. Univerza Cambridge

2. Imperial College London

3. Univerza Harvard

4. Univerza Oxford

5. UCL

6. Univerza Stanford

7. Univerza Princeton

8. Univerza Yale

Univ. Museum of Zoology

NH Museum London

Museum of Nat. Hist.

Museum of Nat. Hist.

Grant Museum of Zoology

Stanford Univ. NH Museum

Princeton Univ. Museum NH

Yale Univ. Museum NH

LARGE-SCALE PROJECTS

Contributing to the World and the Local Community

NAT HIS »

Asian Vertebrate Species Diversity Network Platform

The Kyoto University Museum has launched a three-year initiative under the JSPS Core-to-Core Program titled “Asian Vertebrate Species Diversity Network Platform with Combining Researchers, Specimens and Information.” The project is categorized within the JSPS program, as a type B project to develop Asia–Africa science platforms



Masaharu Motokawa, PhD *Associate Professor, The Kyoto University Museum*



Prirodoslovni muzej Slovenije

- Institucionalno izoliran
- Finančno obubožan
- Kadrovsko podhranjen
- Brez ustrezne infrastrukture

Prirodoslovni muzej Slovenije

- **Institucionalno izoliran**
- Finančno obubožan
- Kadrovsko podhranjen
- Brez ustreznih prostorov

Prirodoslovni muzej Slovenije

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- Brez ustreznih prostorov

Kustodiat za vretenčarje

- **5400 Eur**
- **150 Eur / kustosa / mesec**
- **c. 0,13 Eur / muzealijo / leto**

Kustodiat za vretenčarje

- **5400 Eur**

- **3500 Eur**

za ekstrakcijo

maščob iz 5-10 lobanj

- **350-700 Eur / muzealijo**

0,13 Eur (= 0,04-0,07%) (strošek c. 3000-krat večji)



Prirodoslovni muzej Slovenije

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- Finančno obubožan
- Kadrovsko podhranjen
- Brez ustreznih prostorov

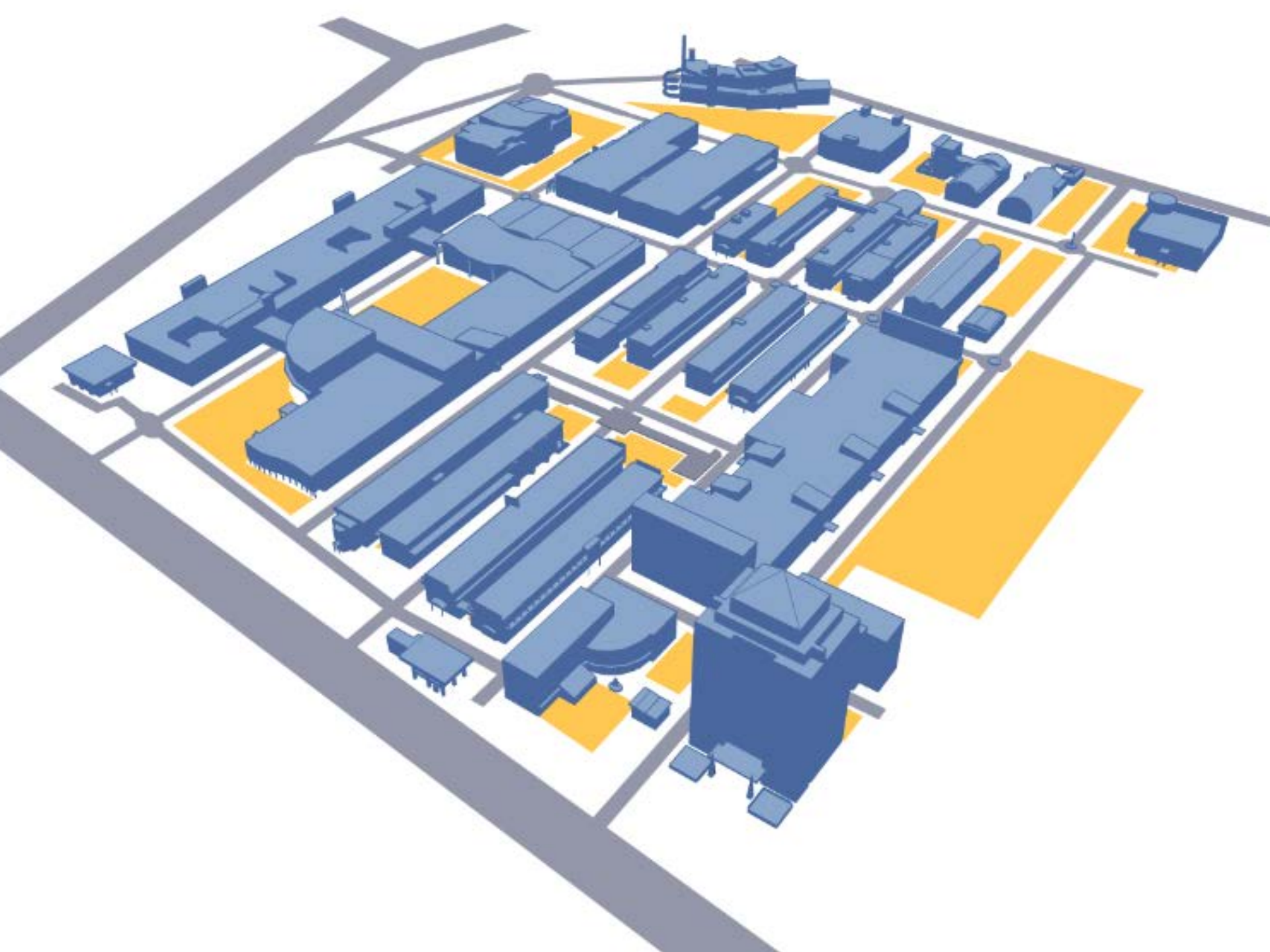
V 2 letih
zmanjšanje
zaposlenih
za **12%**



Prirodoslovni muzej Slovenije

- Institucionalno izoliran
- Finančno obubožan
- Kadrovsko podhranjen
- **Brez ustrezne infrastrukture**





Grinnellov Projekt

Spremembe v raznovrstnosti ptic in sesalcev tekom zadnjega stoletja

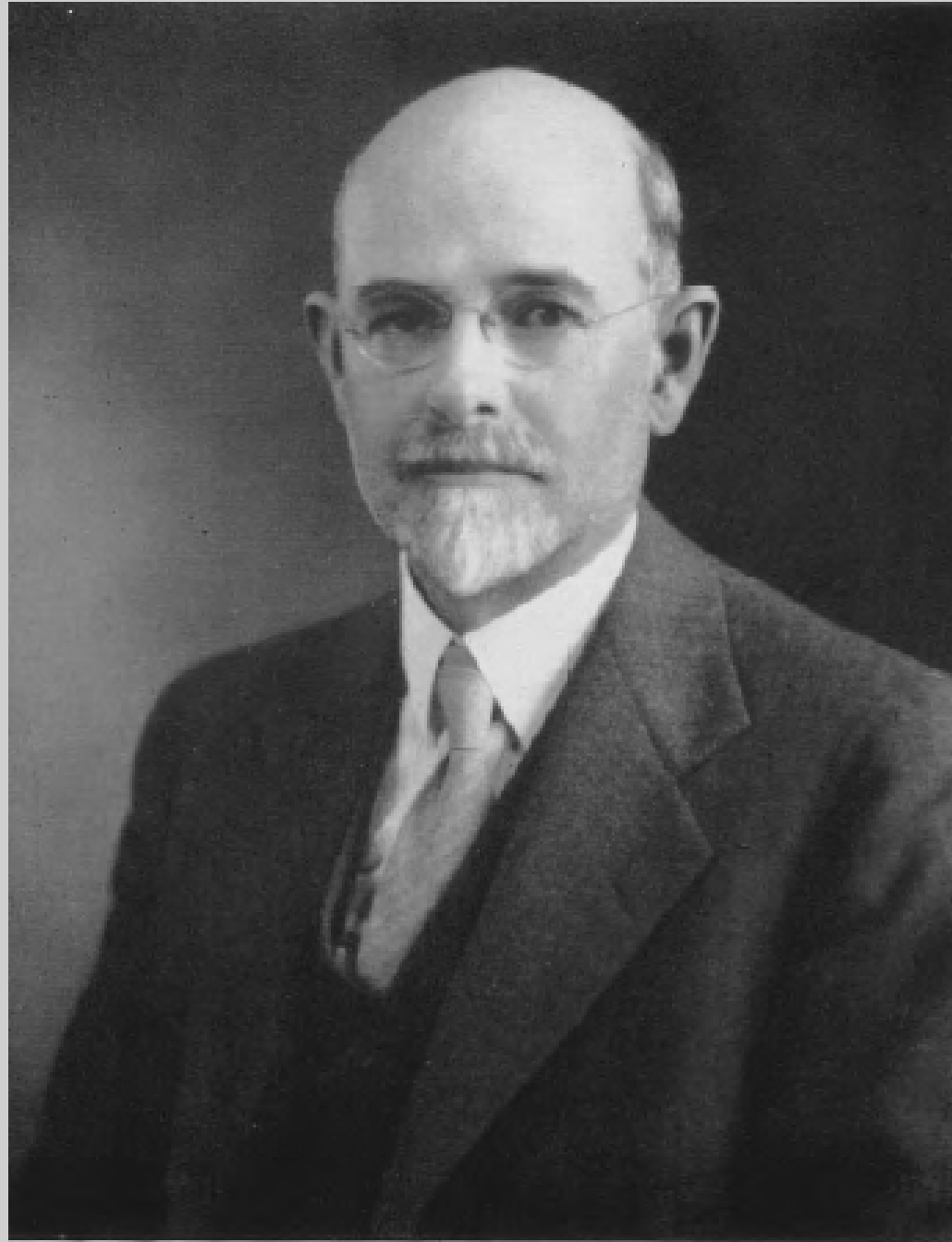


Joseph Grinnell

1877-1939

*“At this point I wish to emphasize what I believe will ultimately prove to be the greatest value of our museum. **This value will not, however, be realized until the lapse of many years, possibly a century, assuming that our material is safely preserved.** And this is that the student of the future will have access to the original record of faunal conditions ..., wherever we now work.”*

1910



JOSEPH GRINNELL IN 1932

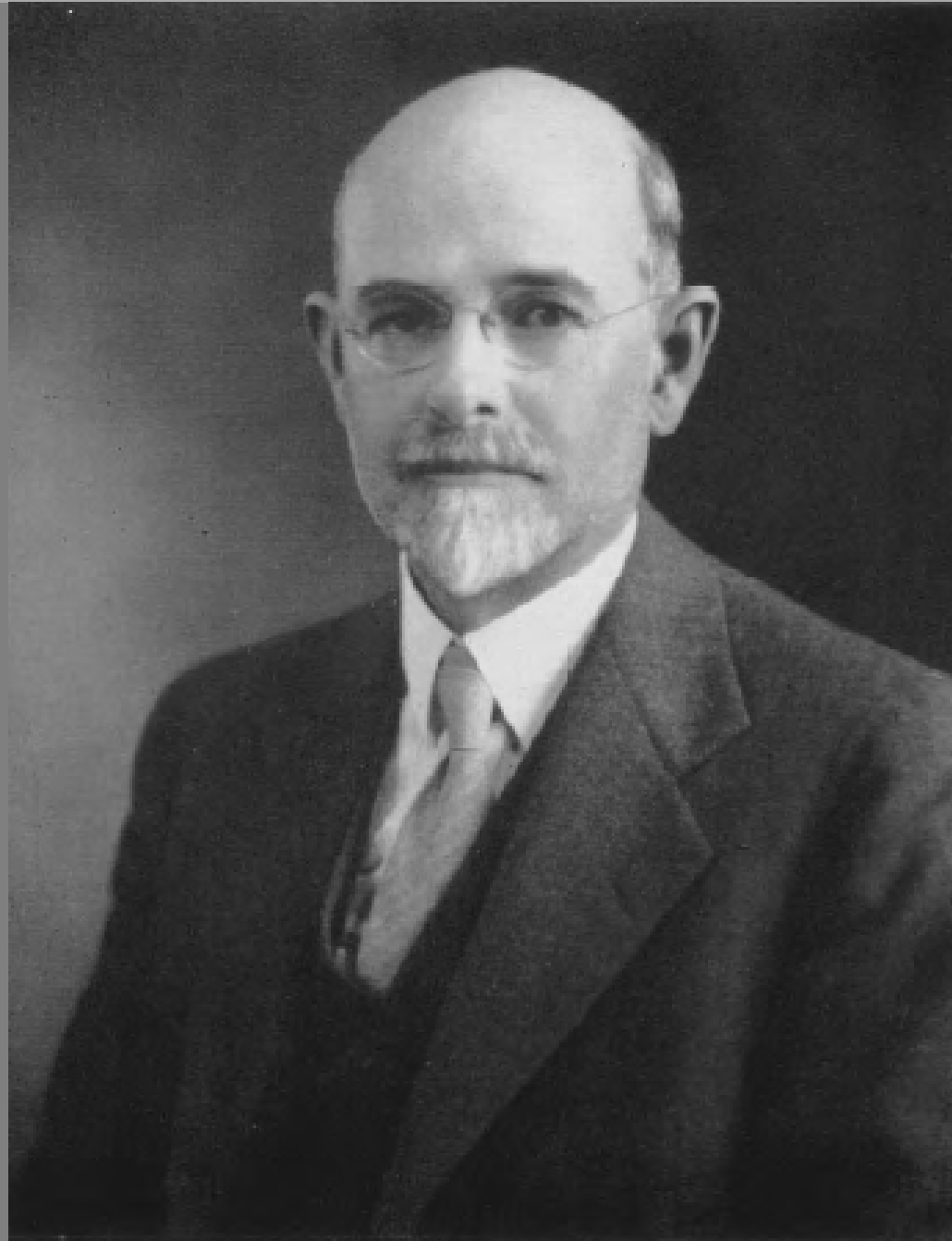
THE CONDOR, January, 1940
Photograph by Webb

Joseph Grinnell

1877-1939

“Želim poudariti to, za kar verjamem, da se bo pokazalo kot največja vrednost našega muzeja. *Da se bomo zavedli te vrednosti, bo minilo mnogo let, morda stoletje, če bo seveda naš material varno shranjen. Raziskovalci v prihodnosti bodo imeli dostop do izvirnih dokumentov o stanju živalstva,, kjerkoli danes delamo.*”

1910



JOSEPH GRINNELL IN 1932

THE CONDOR, January, 1940
Photograph by Webb



HVALA



- Poleg internetnih posnetkov so uporabljene fotografije iz revije Scopolia (navedeni avtorji) in predavateljevega arhiva