

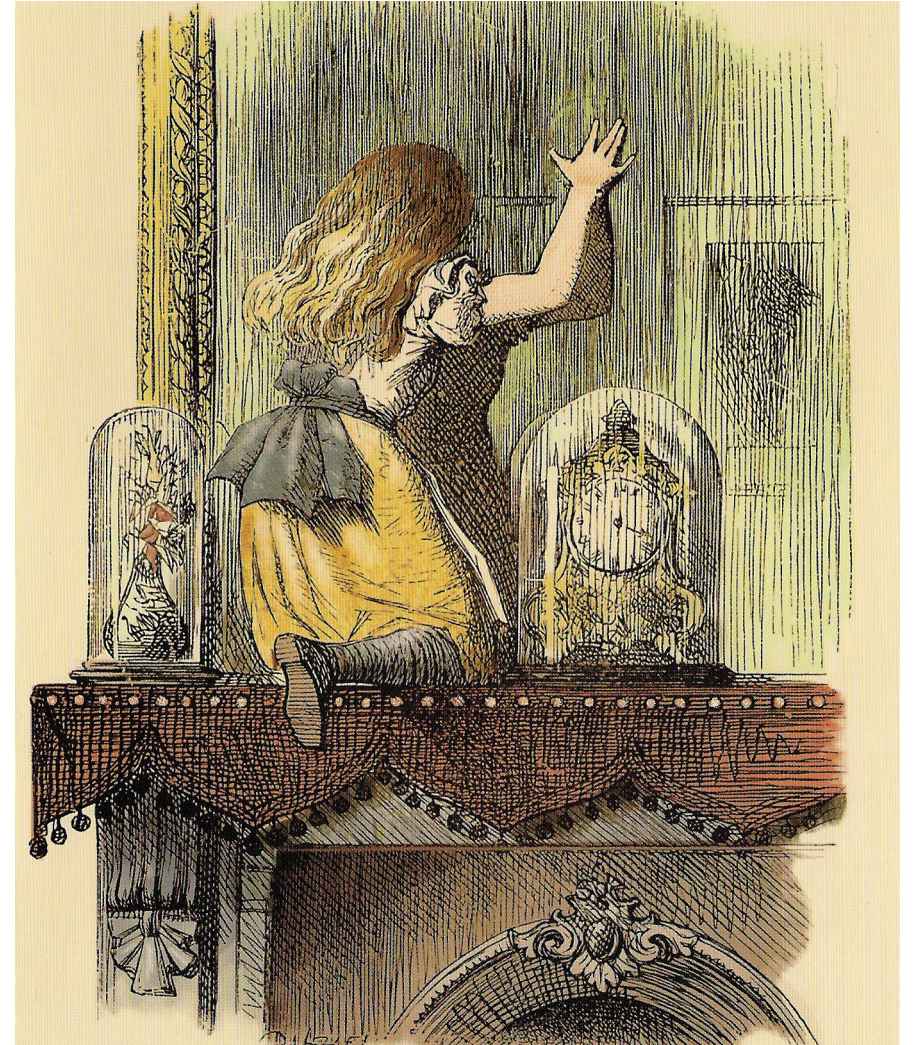


University of  
Zurich<sup>UZH</sup>

Department of Palaeontology

# The Santiago Roth Collections in Switzerland through the looking-glass

Gabriel Aguirre



# Background, South American fossils

NZZ

## Das Rätsel um Meggies Verschwinden

Der Publikumsliebbling des Zoologischen Museums Zürich ist weg. Die Ursachenforschung führt von klebrigen Kinderhänden bis zur wissenschaftlichen Pflicht zur Wahrhaftigkeit.

Urs Bühler

02.10.2018, 15.04 Uhr



Merken



Drucken



Teilen



Meggie, das prähistorische Riesenfaultier, tritt seine letzte Reise an. (Bild: Universität Zürich)



- Mostly mammals
- 284 specimens at PIMUZ
- SwissCollNet 2022–2023
- Collaborators:
  - Lionel Cavin (MHNG)
  - Loïc Costeur (NMB)
  - Antoine Pictet (MGL)



Marcelo Sánchez

# Roth fossils, Department of Palaeontology UZH





Mittlerer Pampeano



Oberer Pampeano

# Swiss roots



Kaspar Jakob Roth

“Santiago”

1850–1924



Swiss National Library, GS-GRAF-ANSI-AR-78

Herisau (AR), 1865

# Emigration

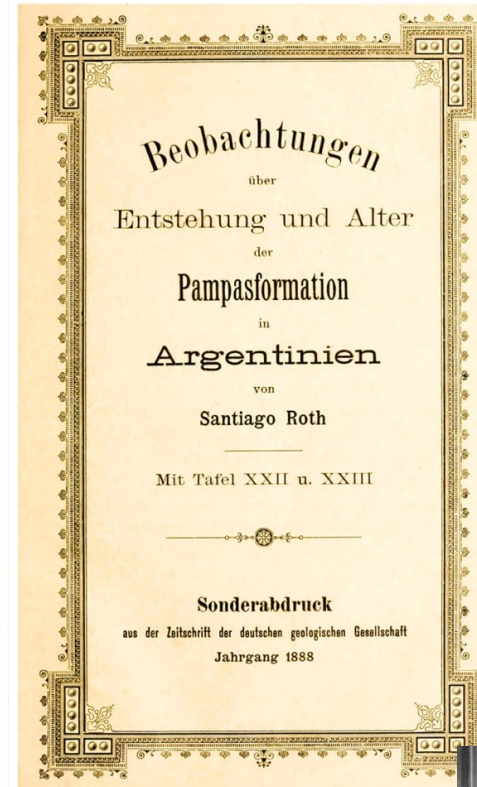
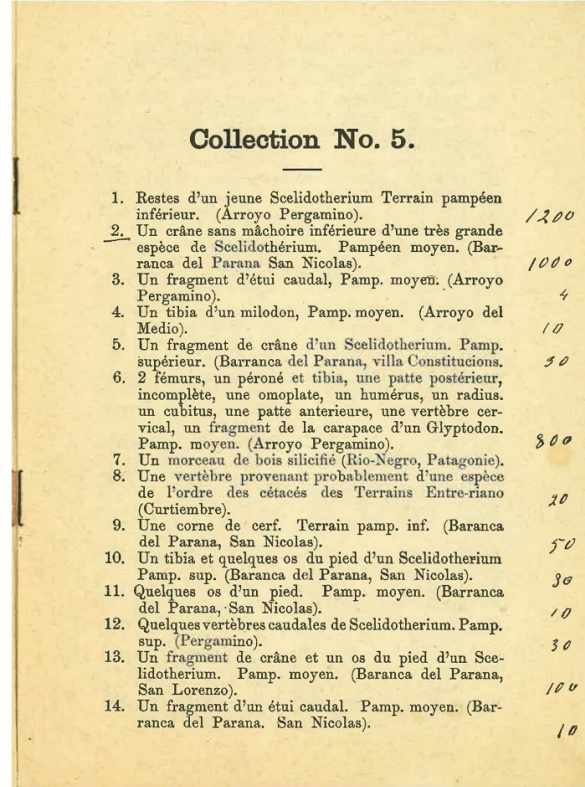
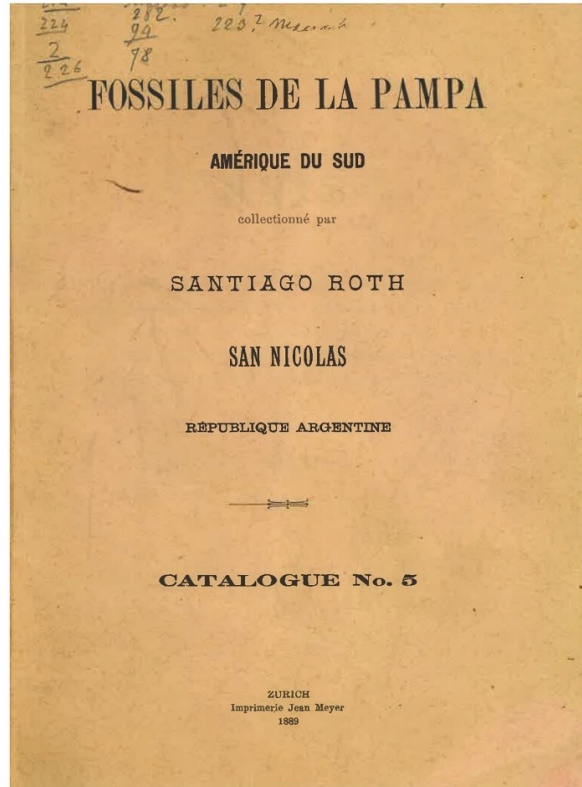


Opper, 1896. Historisches Lexikon Schweiz



Roth in 1890 (Weigelt 1951)

# From fossil trader to palaeontologist



- Catalogues
- Scientific papers
- Director Pal., La Plata Museum
- Dr honoris causa UZH (1900)
- Prof. Univ. La Plata (1905)
- Elisabeth Schütz

Images: Voglino et al. (2023)

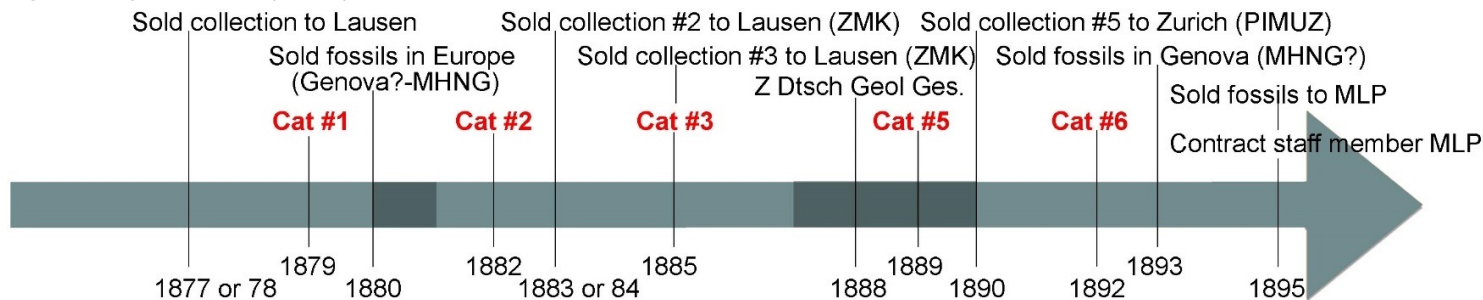
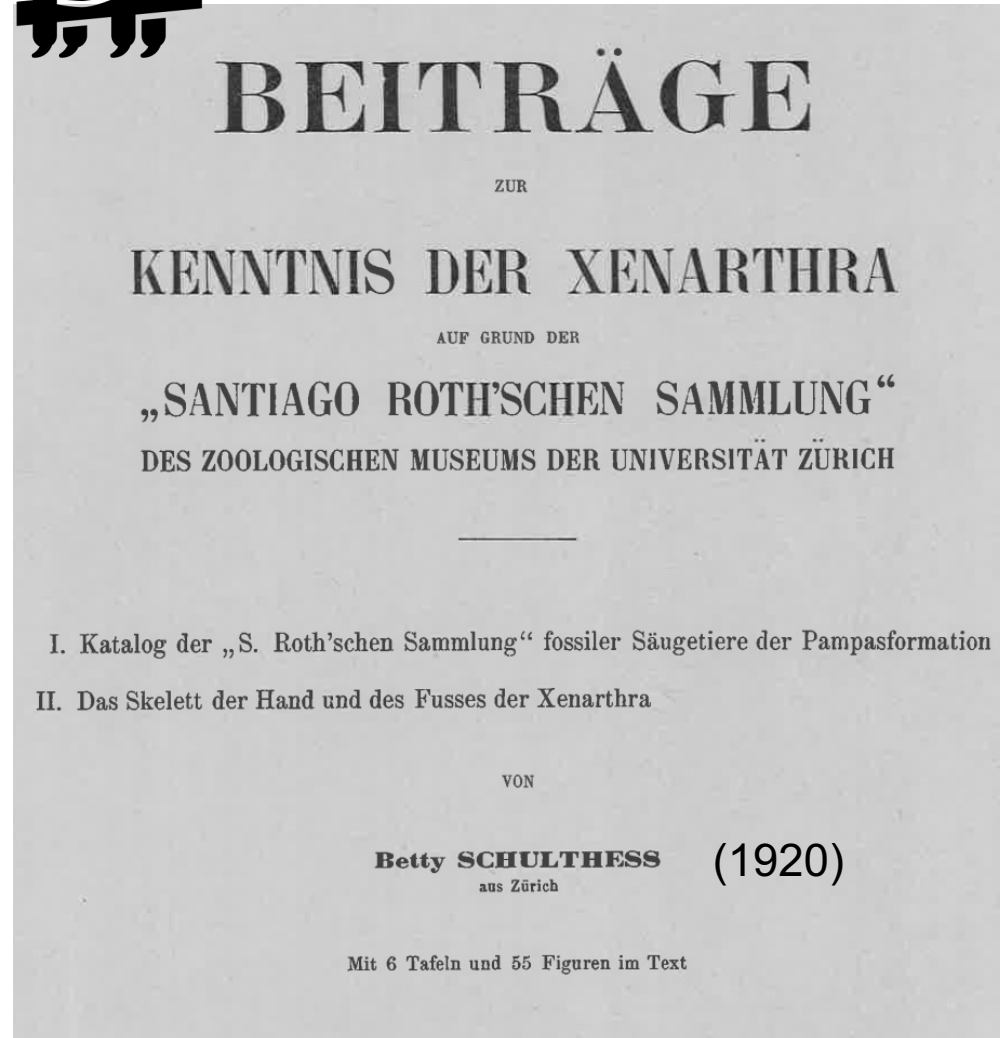
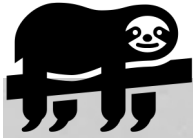
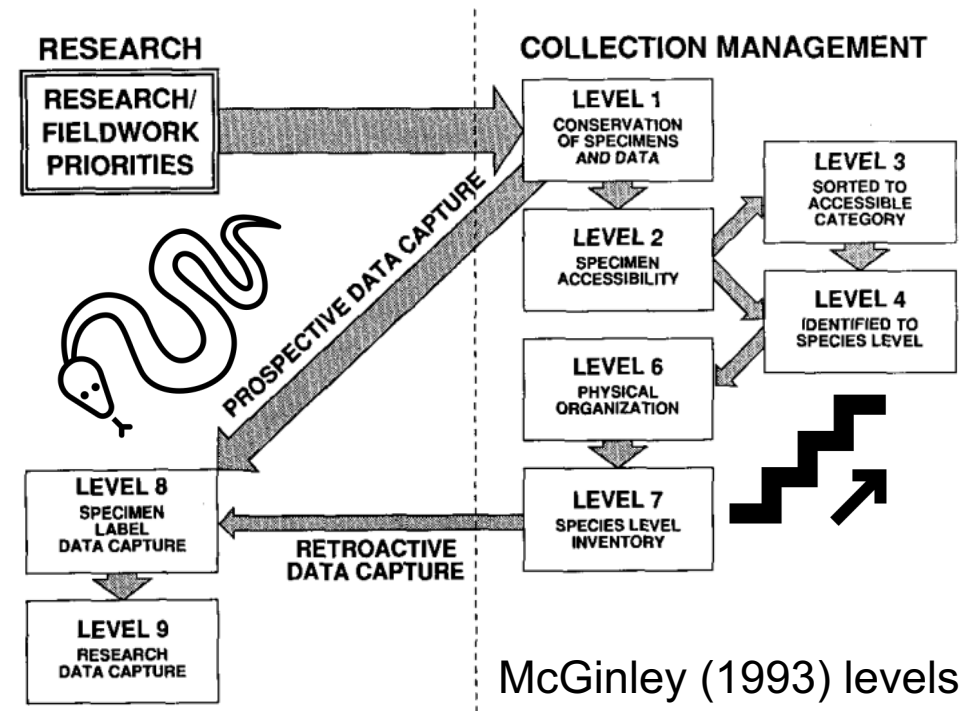


Image: Fortepan (CC BY-SA 3.0)

# From drawers to publication



BACK TO SQUARE 4



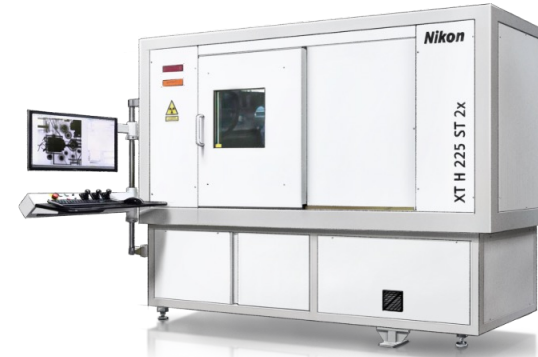
[PIMUZ online database](#)



# Fast track from drawers to publication

**Surface:** Artec Spider & Eva surface scanners

**Inner structures:** CT-scanner Nikon XT H 255 ST



Alexandra Wegmann



Kévin Le Verger



Gizéh Rangel




Jorge Carrillo

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## Santiago Roth Palaeontological Collections

This special issue marks a collection of comprehensive studies of unique palaeontological collections mainly in Zurich of diverse groups of mostly but not only mammals - in commemoration of Santiago Roth's legacy, one century after his death.

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Analía Forasiepi  
Conicet (ARG)  
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# Historical & curatorial aspects

Marcelo R. Sánchez-Villagra et al. *Swiss Journal of Palaeontology* (2023) 142:19  
<https://doi.org/10.1186/s13358-023-00282-6>

Swiss Journal of Palaeontology

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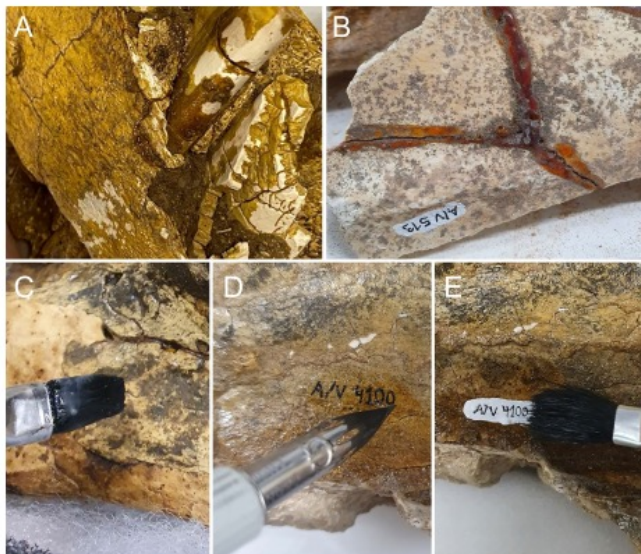
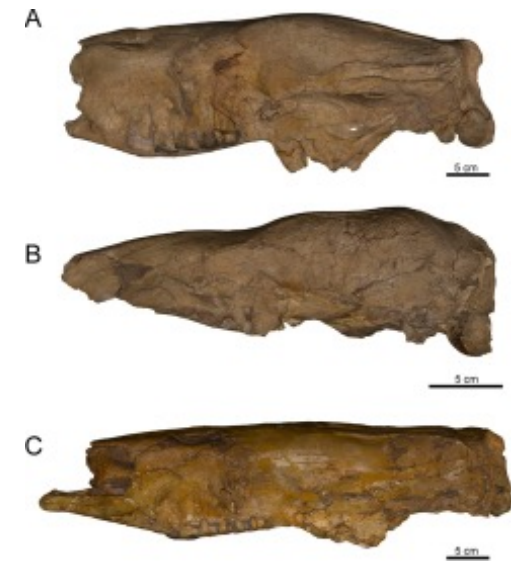
RESEARCH ARTICLE

Open Access



## From fossil trader to paleontologist: on Swiss-born naturalist Santiago Roth and his scientific contributions

Marcelo R. Sánchez-Villagra<sup>1\*</sup>, Mariano Bond<sup>2</sup>, Marcelo Reguero<sup>2</sup> and Tomás Bartoletti<sup>3</sup>



Voglino et al. *Swiss Journal of Palaeontology* (2023) 142:25  
<https://doi.org/10.1186/s13358-023-00283-5>

Swiss Journal of Palaeontology

[link](#)

RESEARCH ARTICLE

Open Access



## Pampean megamammals in Europe: the fossil collections from Santiago Roth

Damián Voglino<sup>1</sup>, Jorge D. Carrillo-Briceño<sup>2</sup>, Heinz Furrer<sup>2</sup>, Ana Balcarcel<sup>2</sup>, Gizel Rangel-de Lazaro<sup>2</sup>, Gabriel Aguirre Fernández<sup>2</sup> and Analía M. Forasiepi<sup>3\*</sup>

# Highlights, xenarthrans

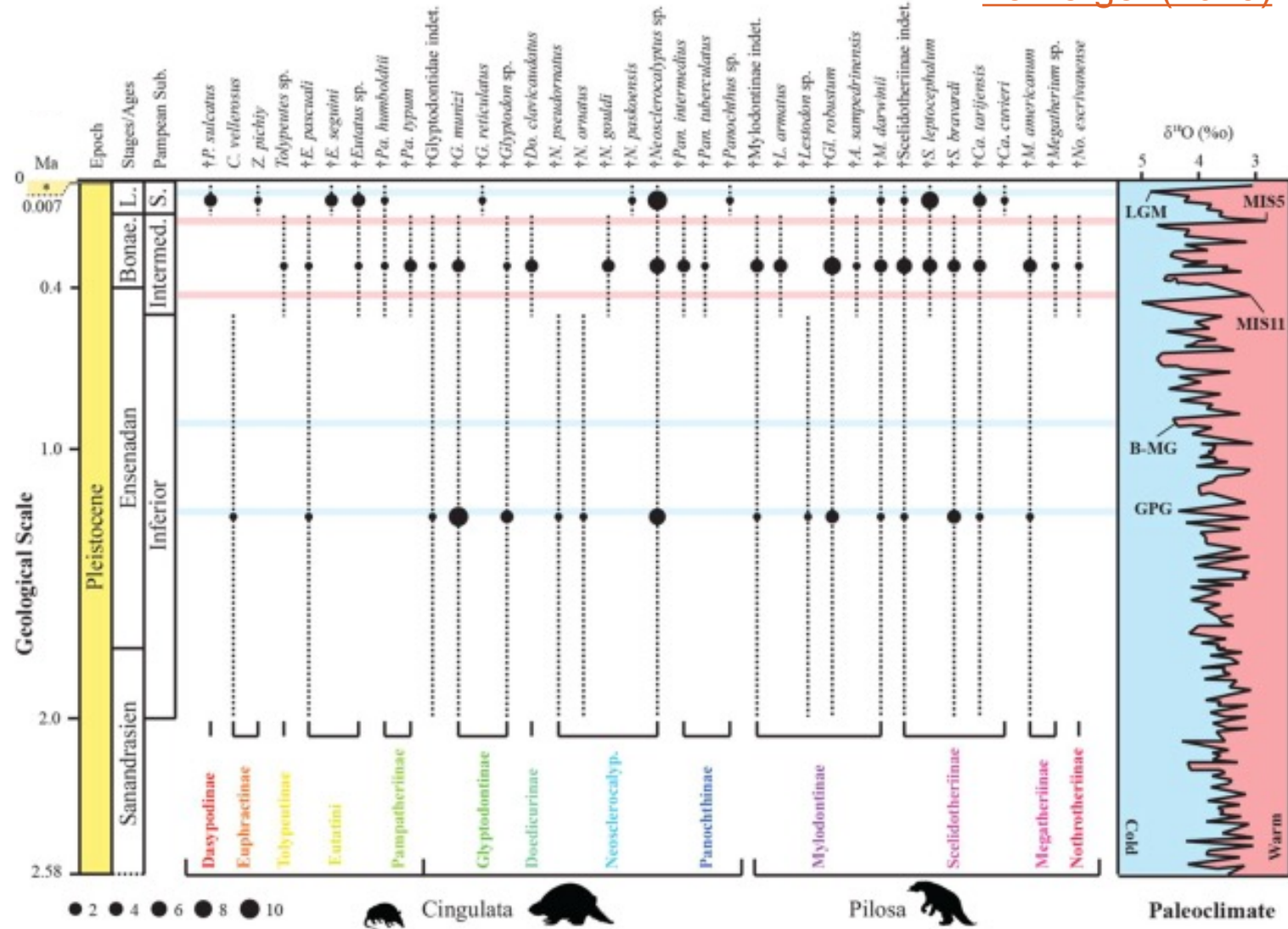
Le Verger (2023)



Kévin Le Verger



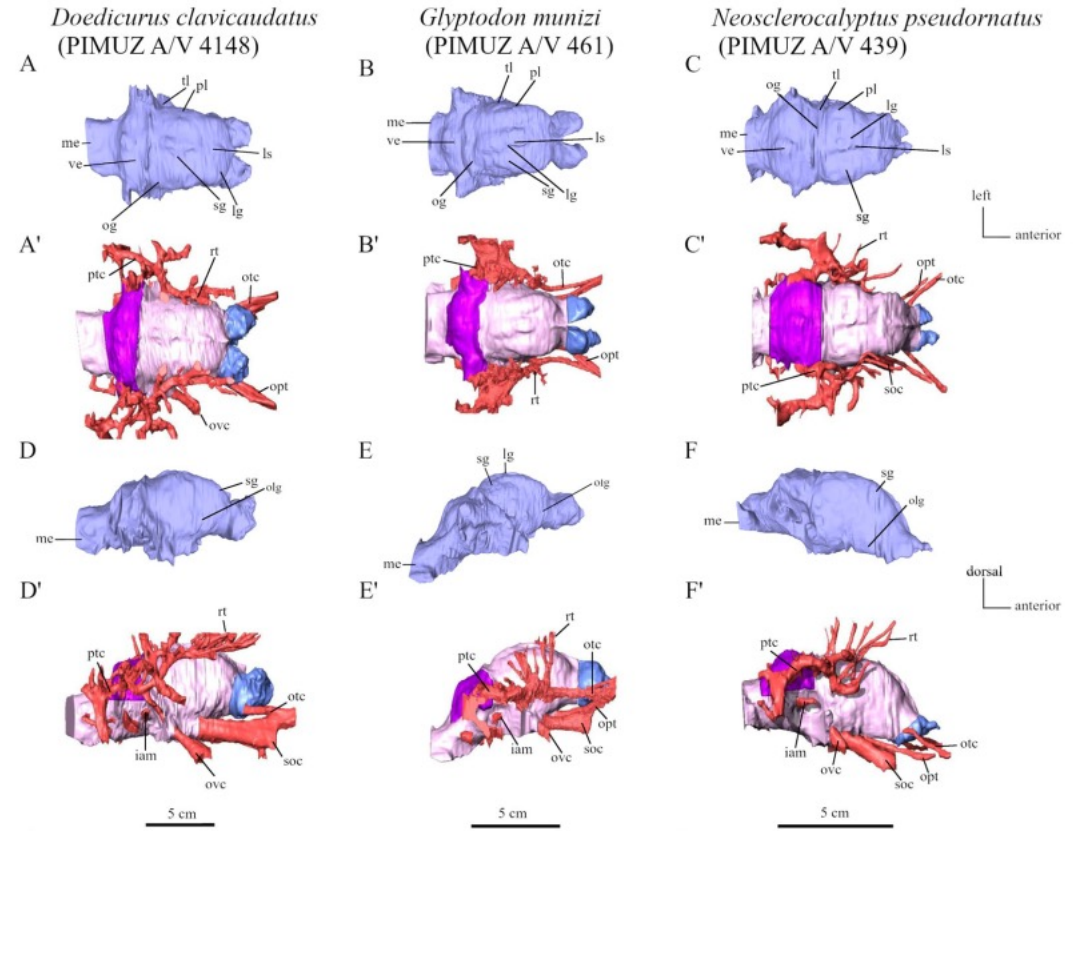
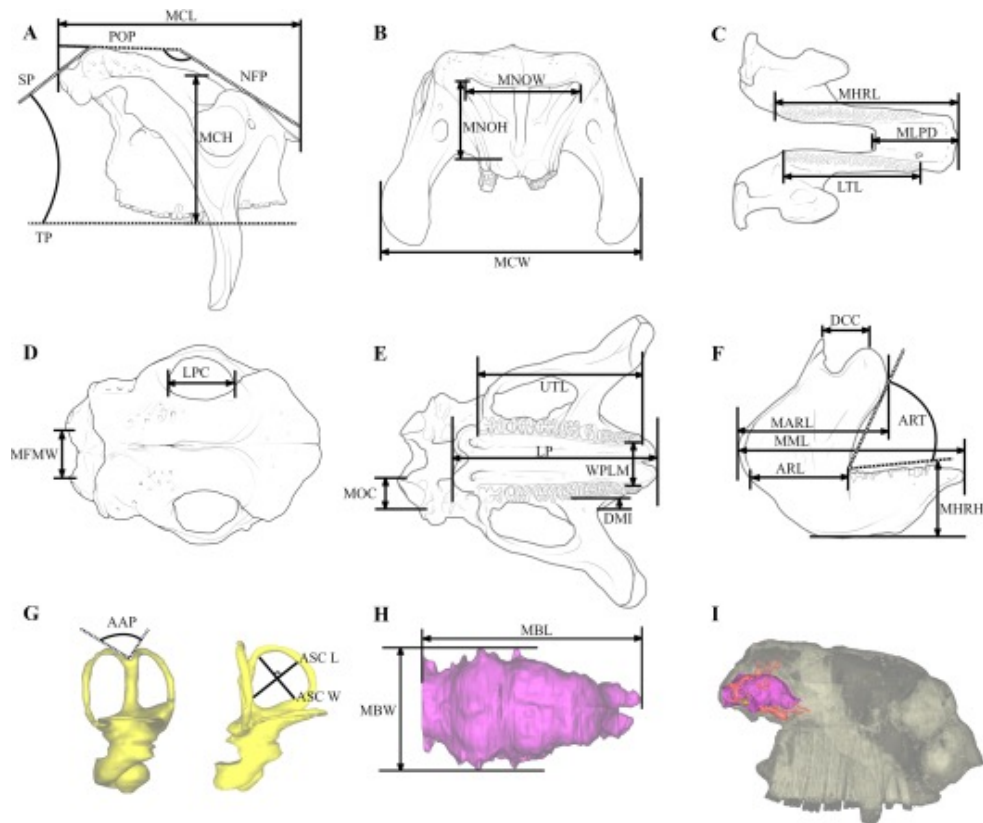
Xvazquez, CC BY-SA 3.0



Of 150 specimens, 114 reassignments!



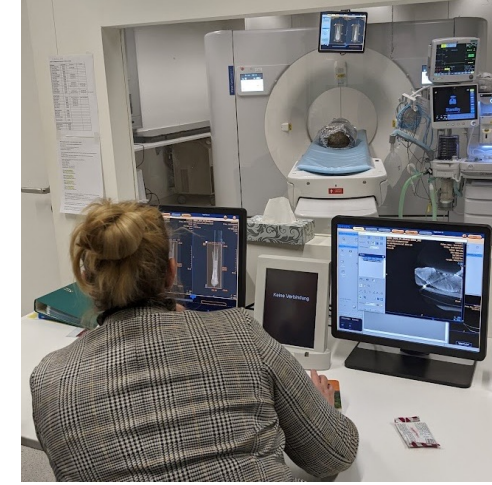
Christen et al. (2023)





Le Verger et al.

96th Annual Meeting of  
the German Society for  
Mammalian Biology

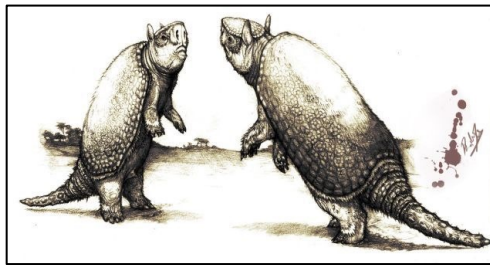


Passive  
Defense

Active  
Defense



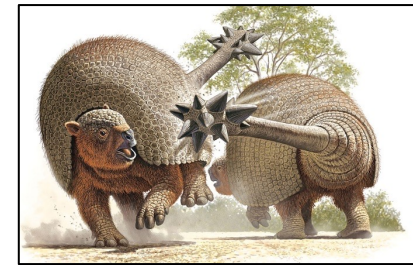
*Glyptodon*



*Neosclerocalyptus*



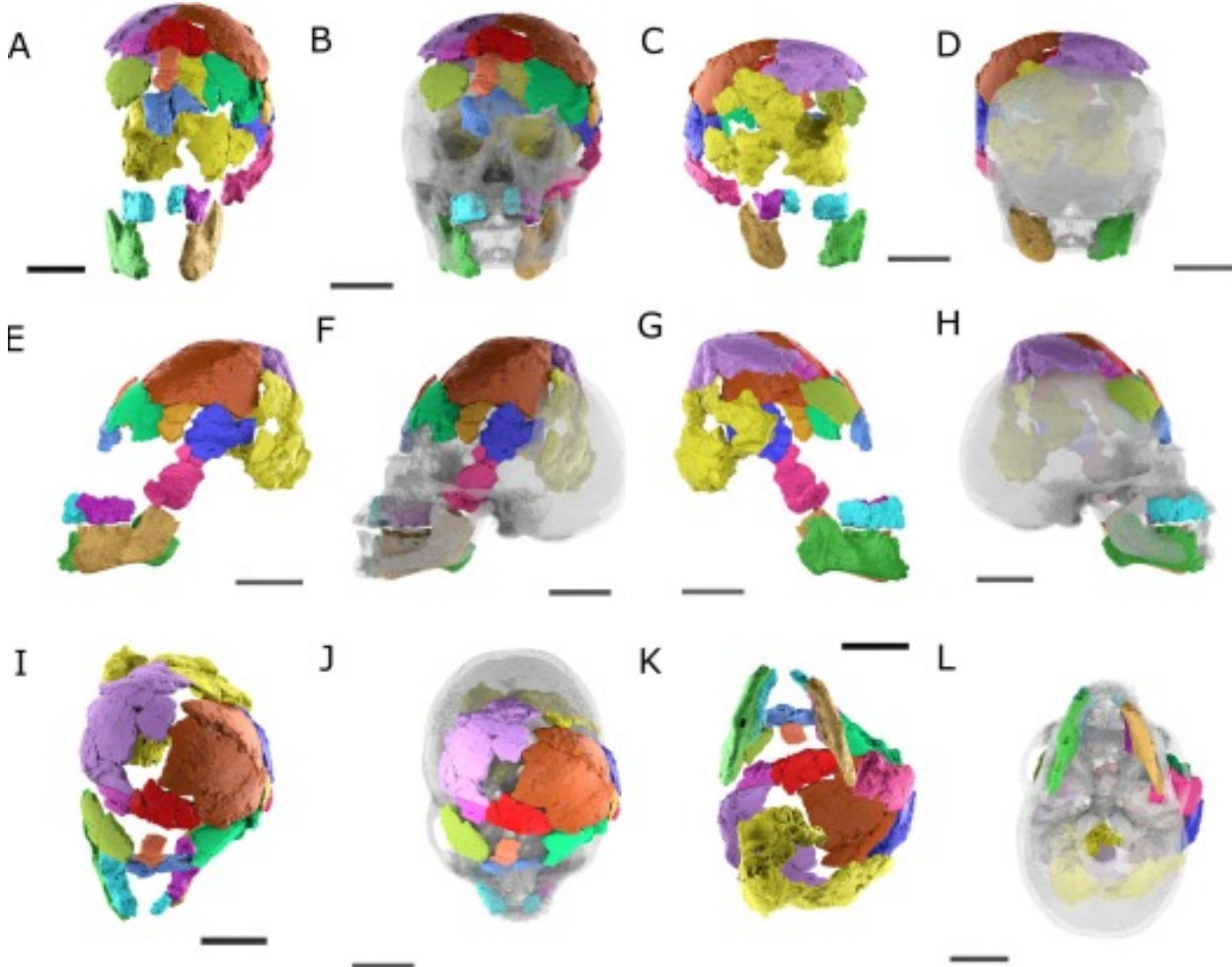
*Panochthus*



*Doedicurus*

# Highlights, Baradero “human fossil”

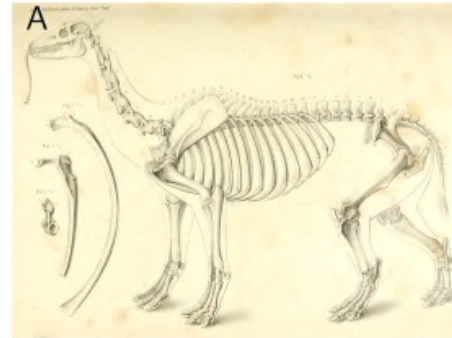
Menéndez et al. (2023)



# Highlights, the atlas of *Machrauchenia*



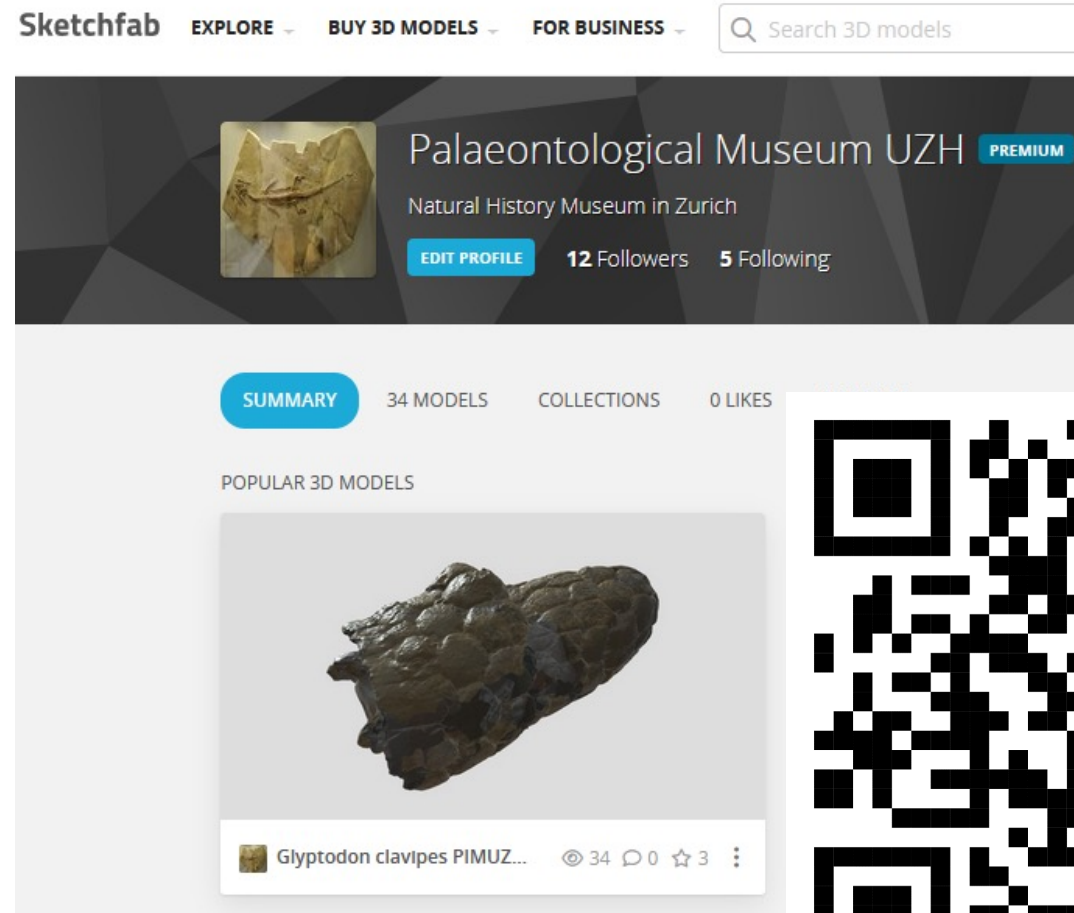
Püschel and Martinelli (2023)





# Conclusions and practical tips

- McGinley's level nine is not cloud nine
- 3D models can definitely be research magnets
- See our models in Sketchfab! →
- Surface 3D scanners are not cheap, but if time equals money...
- Sketchfab for the public
- Morphosource for scientists



# Thanks!



## Swiss natural history collections network (SwissCollNet)

SwissCollNet is committed to improving the accessibility of natural history collections. A common vision and long-term strategy will promote the use of natural history collections for research, education and society.

Image: OscarLoRa, stock.adobe.com

- SCNAT and SwissCollNet

- Loïc Costeur, Lionel Cavin, Antoine Pictet



MUSÉUM CANTONAL  
DES SCIENCES NATURELLES  
Botanique | Géologie | Zoologie



- Palaeontology Department UZH, Marcelo Sánchez



University of  
Zurich<sup>UZH</sup>

Department of Palaeontology

- Kévin, Gizéh, Jorge, Alexandra (project members)

- Daniel Marty (SJP), Analía Forasiepi, authors and reviewers of Roth's special issue



- Sketchfab, Morphosource

