

# Synthesis of systematic resources

## Ergebnisse

### Projektinformationen

#### SYNTHESYS PLUS

ID Finanzhilfevereinbarung: 823827

Projektwebsite 

#### DOI

[10.3030/823827](https://doi.org/10.3030/823827) 

Projekt abgeschlossen

#### EK-Unterschriftdatum

30 November 2018

#### Startdatum

1 Februar 2019

#### Enddatum

31 Juli 2023

#### Finanziert unter

EXCELLENT SCIENCE - Research Infrastructures

#### Gesamtkosten

€ 11 342 333,77

#### EU-Beitrag

€ 10 000 000,00

#### Koordiniert durch

NATURAL HISTORY MUSEUM

 United Kingdom

CORDIS bietet Links zu öffentlichen Ergebnissen und Veröffentlichungen von HORIZONT-Projekten.

Links zu Ergebnissen und Veröffentlichungen von RP7-Projekten sowie Links zu einigen Typen spezifischer Ergebnisse wie Datensätzen und Software werden dynamisch von [OpenAIRE](#)  abgerufen.

## Leistungen

## Documents, reports (19)

### [Whitepaper on opportunities for increased alignment with other EU infrastructures](#)

Whitepaper on opportunities for increased alignment and interoperability between SYNTHESYS and other EU infrastructures

### [Publication providing synthesis of cost-effective + scalable workflows for NH collections DNA sequencing](#)

Peerreviewed publication providing synthesis of costeffective and scalable work flows for DNA sequencing NH collections

### [Report from engagement activities with taxonomic facilities in priority regions \(non-Europe\)](#)

Report from engagement activities with taxonomic facilities in priority regions outside Europe

### [Landscape analysis and missing standards handbook](#)

### [Evaluation and assessment of existing landscape](#)

Evaluation and assessment of existing landscape, summarising the findings of task 8.1 “Evaluation and assessment of existing landscape”

### [Roadmap for integrated implementation of priority component areas](#)

European roadmap for integrated implementation of priority component areas with focal areas for delivery by SYNTHESYS partners and other EU infrastructures

### [Best practice for usage of molecular collections handbook](#)

### [Data use and exploitation of Specimen Data Refinery](#)

Data delivery and exploitation of Specimen Data Refinery summarising the use cases for the delivery and exploitation of data generated through the specimen data refinery as part of task 84

### [Specification and requirements for integration with ELViS](#)

Specification and requirements for integration of collections management systems with ELViS

### [Consolidated document on policy topics, related best practices + standards](#)

Consolidated document on policy topics related best practices standards

### [Report from engagement with new user communities](#)

### [Whitepaper on partnering with other infrastructures to ensure sustainable delivery of SYNTHESYS+](#)

## services ↗

Whitepaper on partnering with other infrastructures to ensure sustainable delivery of services offered by SYNTHESYS partners to European research

## Inventory and Analysis of Dataflows ↗

Inventory and analysis of dataflows as part of the ELViS functional specifications

## Paper on implementation, assessments and sustainability business plan of VA ↗

Peer-reviewed paper on the implementation, assessment and sustainability business plan of VA

## Identifier management for curators ↗

A guide of best practices documentation for curatorial staff covering the maintenance of collections with persistent identifiers and documenting best practice in this domain, for example when collections are merged or specimens are deaccessioned.

## Standards Report (Developing + extending standards in the biodiversity informatics domain) ↗

Standards reports progress made on developing and extending standards in the biodiversity informatics domain built from the reports and standards created from meetings funded under task 412

## Piloting Access through an AAI infrastructure ↗

## Results of pilot workflow integrations with ELViS ↗

## Implementation manual for IIIF and CETAf Identifiers in the NH collections community ↗

An implementation manual for IIIF and CETAf Identifiers in the NH collections community

## Demonstrators, pilots, prototypes (5)

### Tools and services for extraction, enhancement and annotation ↗

A set of automated and high throughput software services to extract, enhance and annotate NH specimen data

### ELViS System for Unified Access ↗

### ELViS Helpdesk ↗

ELViS Helpdesk: a unified helpdesk system support researchers access the collections and DoD services

## Cloud platform for tools and services

An online platform to make services and workflows openly accessible together as a toolkit with an authentication and authorisation infrastructure

## Data pipelines + standard workflows, enabling online access to complex digital content (3D scans)

### Other (7) ▼

#### Delivery of user days

User day delivery: Deliver a minimum of 7,235 user days

#### Final General Meeting

Final General Meeting: for all beneficiaries and other stakeholders

#### Periodic assessment (2) of VA by external board

#### Catalogue of training modules

#### Joint dashboard of collections assessment tools

#### Best practices for using the GGBN Data Standard to provide restriction and loan information handbook

Best practices for using the GGBN Data Standard to provide restriction and loan information handbook: Agreed guidelines for using the GGBN Data Standard in conjunction with OpenDS specification for restriction and loan information published via DiSSCo knowledge base. [month 48]

#### Periodic assessment (1) of VA by external board

### Open Research Data Pilot (1) ▼

#### Data Management Plan

## Veröffentlichungen

### Peer reviewed articles (22) ▼

[SYNTHESYS+ Virtual Access - Report on the Ideas Call \(October to November 2019\)](#) ↗

**Autoren:** Helen Hardy, Sandra Knapp, E. Louise Allan, Frederik Berger, Katherine Dixey, Bernadette Döme, Pierre-Yves Gagnier, Jiri Frank, Elspeth Haston, Joachim Holstein, Steffen Kiel, Maria Marschler, Patricia Mergen, Sarah Phillips, Rivka Rabinovich, Begoña Sanchez Chillón, Martin Sorensen, Marco Thines, Maarten Trekels, Robert Vogt, Scott Wilson, Karin Wiltschke-Schrotta

**Veröffentlicht in:** Research Ideas and Outcomes, Ausgabe 6, 2020, ISSN 2367-7163

**Herausgeber:** Pensoft

**DOI:** 10.3897/rio.6.e50354

[Towards a Roadmap for Advancing the Catalogue of the World's Natural History Collections](#) ↗

**Autoren:** Donald Hobern; Laurence Livermore; Sarah Vincent; Tim Robertson; Joseph Miller; Quentin Groom; Marie Grosjean

**Veröffentlicht in:** Research Ideas and Outcomes, Ausgabe 7, 2022, ISSN 2367-7163

**Herausgeber:** Pensoft

**DOI:** 10.3897/rio.8.e98593

[Join the Dots: Adding collection assessment to collection descriptions](#) ↗

**Autoren:** Matt Woodburn, Sarah Vincent, Helen Hardy, Clare Valentine

**Veröffentlicht in:** Biodiversity Information Science and Standards, Ausgabe 3, 2019, ISSN 2535-0897

**Herausgeber:** Pensoft

**DOI:** 10.3897/biss.3.37200

[Genome skimming reveals novel plastid markers for the molecular identification of illegally logged African timber species](#) ↗

**Autoren:** Maurizio Mascarello, Mario Amalfi, Pieter Asselman, Erik Smets, Olivier J. Hardy, Hans Beeckman, Steven B. Janssens

**Veröffentlicht in:** PLoS ONE, Ausgabe 16: 6, 2021, ISSN 1932-6203

**Herausgeber:** Public Library of Science

**DOI:** 10.1371/journal.pone.0251655

[A botanical demonstration of the potential of linking data using unique identifiers for people](#) ↗

**Autoren:** Anton Güntsch; Quentin Groom; Marcus Ernst; Jörg Holetschek; Andreas Plank; Dominik Röpert; David Fichtmüller; David Peter Shorthouse; Roger Hyam; Mathias Dillen; Maarten Trekels; Elspeth Haston; Heimo Rainer

**Veröffentlicht in:** PLoS ONE, Ausgabe 4, 2021, ISSN 1932-6203

**Herausgeber:** Public Library of Science

**DOI:** 10.1371/journal.pone.0261130

[Micro-CT image gallery visually presenting the effects of ocean warming and acidification on marine gastropod shells](#)

**Autoren:** Eva Chatzinkolaou, Kleoniki Keklikoglou, Panagiotis Grigoriou, Christos Arvanitidis

**Veröffentlicht in:** Biodiversity Data Journal, Ausgabe 9, 2021, ISSN 1314-2828

**Herausgeber:** Pensoft

**DOI:** 10.3897/bdj.9.e75358

[The disambiguation of people names in biological collections](#)

**Autoren:** Quentin Groom; Christian Bräuchler; Robert Cubey; Mathias Dillen; Pieter Huybrechts; Nicole Kearney; Niels Klazenga; Siobhan Leachman; Deborah L Paul; Heather Rogers; Joaquim Santos; David Shorthouse; Alison Vaughan; Sabine von Mering; Elspeth Haston

**Veröffentlicht in:** Biodiversity Data Journal, Ausgabe 10, 2022, ISSN 1314-2828

**Herausgeber:** Pensoft

**DOI:** 10.3897/bdj.10.e86089

[10 Simple Rules for making a software tool workflow-ready](#)

**Autoren:** Paul Brack; Peter Crowther; Stian Soiland-Reyes; Stuart Owen; Douglas Lowe; Alan R Williams; Quentin Groom; Mathias Dillen; Frederik Coppens; Björn Grüning; Ignacio Eguinoa; Philip Ewels; Carole Goble

**Veröffentlicht in:** PLoS Computational Biology, Ausgabe 22, 2022, ISSN 1553-7358

**Herausgeber:** PLOS

**DOI:** 10.1371/journal.pcbi.1009823

[Genetic characterization of a group of commercial African timber species: From genomics to barcoding](#)

**Autoren:** Maurizio Mascarello, Olivier Lachenaud, Mario Amalfi, Erik Smets, Olivier J. Hardy, Hans Beeckman, Steven B. Janssens

**Veröffentlicht in:** PLoS ONE, Ausgabe 18: 4, 2023, ISSN 1932-6203

**Herausgeber:** Public Library of Science

**DOI:** 10.1371/journal.pone.0284732

[Semantically Linking Specimens and Images](#)

**Autoren:** Roger Hyam

**Veröffentlicht in:** Biodiversity Information Science and Standards, Ausgabe 3, 2019, ISSN 2535-0897

**Herausgeber:** Pensoft

**DOI:** 10.3897/biss.3.35343

[Target capture and genome skimming for plant diversity studies](#)

**Autoren:** Flávia Fonseca Pezzini, Giada Ferrari, Laura L. Forrest, Michelle L. Hart, Kanae Nishii, Catherine A. Kidner

**Veröffentlicht in:** Applications in Plant Sciences, Ausgabe 11: 4, 2023, ISSN 2168-0450

**Herausgeber:** The Botanical Society of America

**DOI:** 10.1002/aps3.11537

[Landscape Analysis for the Specimen Data Refinery](#) ↗

**Autoren:** Stephanie Walton, Laurence Livermore, Olaf Bánki, Robert Cubey, Robyn Drinkwater, Markus Englund, Carole Goble, Quentin Groom, Christopher Kermorvant, Isabel Rey, Celia Santos, Ben Scott, Alan Williams, Zhengzhe Wu

**Veröffentlicht in:** Research Ideas and Outcomes, Ausgabe 6, 2020, ISSN 2367-7163

**Herausgeber:** Pensoft

**DOI:** 10.3897/rio.6.e57602

[Collections Digitization and Assessment Dashboard, a Tool for Supporting Informed Decisions](#) ↗

**Autoren:** Ana Casino, Niels Raes, Wouter Addink, Matt Woodburn

**Veröffentlicht in:** Biodiversity Information Science and Standards, Ausgabe 3, 2019, ISSN 2535-0897

**Herausgeber:** Pensoft

**DOI:** 10.3897/biss.3.37505

[Integrating ABCD and DarwinCore: Toward a better foundation for biodiversity information standards](#)



**Autoren:** Stanley Blum, Katharine Barker, Steven J Baskauf, Walter G. Berendsohn, Pier Luigi Buttigieg, Markus Döring, Gabriele Droege, David Fichtmueller, Falko Glöckler, Anton Güntsch, Robert Guralnick, Jana Hoffmann, Niels Klazenga, James Macklin, Paul J. Morris, Deborah L Paul, Mareike Petersen, Tim Robertson, Joel Sachs, David Shorthouse, Ramona Walls, John Wieczorek, Paula F Zermoglio

**Veröffentlicht in:** Biodiversity Information Science and Standards, Ausgabe 3, 2019, ISSN 2535-0897

**Herausgeber:** Pensoft

**DOI:** 10.3897/biss.3.37491

[Policies Handbook on Using Molecular Collections](#) ↗

**Autoren:** Astrid de Mestier, Daniel Mulcahy, David J. Harris, Nadja Korotkova, Sarah Long, Eva Häffner, Alan Paton, Edmund K. Schiller, Frederik Leliaert, Jacqueline Mackenzie-Dodds, Tim Fulcher, Gunilla Stahls, Thomas von Rintelen, María P. Martín, Robert Lücking, China Williams, Christopher H. C. Lyal, Anton Güntsch, Heléne Aronsson, Magalie Castelin, Anna Pielach, Peter Poczai, Yolanda Ruiz-León,

**Veröffentlicht in:** Research Ideas and Outcomes, Ausgabe 9, 2023, ISSN

2367-7163

**Herausgeber:** Pensoft

**DOI:** 10.3897/rio.9.e102908

[People are essential to linking biodiversity data ↗](#)

**Autoren:** Quentin Groom; Anton Güntsch; Pieter Huybrechts; Nicole Kearney; Siobhan Leachman; Nicky Nicolson; Roderic D. M. Page; David Shorthouse; Anne E. Thessen; Elspeth Haston

**Veröffentlicht in:** Database: The Journal of Biological Databases and Curation, Ausgabe 1, 2020, ISSN 1758-0463

**Herausgeber:** Oxford University Press

**DOI:** 10.1093/database/baaa072

[Access to Natural History Collections – from SYNTHESYS to DiSSCo ↗](#)

**Autoren:** Sandra Knapp, Sarah Vincent, Christos Arvanitidis, Katherine Dixey, Patricia Mergen

**Veröffentlicht in:** Biodiversity Information Science and Standards, Ausgabe 3, 2019, ISSN 2535-0897

**Herausgeber:** Pensoft

**DOI:** 10.3897/biss.3.37149

[The Specimen Data Refinery: A Canonical Workflow Framework and FAIR Digital Object Approach to Speeding up Digital Mobilisation of Natural History Collections ↗](#)

**Autoren:** Alex Hardisty, Paul Brack, Carole Goble, Laurence Livermore, Ben Scott, Quentin Groom, Stuart Owen, Stian Soiland-Reyes

**Veröffentlicht in:** Data Intelligence, Ausgabe 4: 2, 2022, Seite(n) 320-341, ISSN 2641-435X

**Herausgeber:** MIT Press

**DOI:** 10.1162/dint\_a\_00134

[SYNTHESYS+ Abridged Grant Proposal ↗](#)

**Autoren:** Vincent Smith, Kristina Gorman, Wouter Addink, Christos Arvanitidis, Ana Casino, Katherine Dixey, Gabriele Dröge, Quentin Groom, Elspeth Haston, Donald Hobern, Sandra Knapp, Dimitrios Koureas, Laurence Livermore, Ole Seberg

**Veröffentlicht in:** Research Ideas and Outcomes, Ausgabe 5, 2019, ISSN 2367-7163

**Herausgeber:** Pensoft

**DOI:** 10.3897/rio.5.e46404

[Biodiversity biobanks: a landscape analysis ↗](#)

**Autoren:** Carolina Corrales, Samantha Luciano, Jonas J. Astrin

**Veröffentlicht in:** Research Ideas and Outcomes, Ausgabe ARPHA Preprints, 2023, ISSN 2367-7163

**Herausgeber:** Pensoft

**DOI:** 10.3897/arphapreprints.e103105

[Documenting Natural History Collections in GBIF](#) ↗

**Autoren:** Tim Robertson, Marcos Gonzalez, Morten Høfft, Marie Grosjean

**Veröffentlicht in:** Biodiversity Information Science and Standards, Ausgabe 3, 2019, ISSN 2535-0897

**Herausgeber:** Pensoft

**DOI:** 10.3897/biss.3.37216

[Developing the Protocol Infrastructure for DNA Sequencing Natural History Collections](#) ↗

**Autoren:** Giada Ferrari, Lore Esselens, Michelle L Hart, Steven Janssens, Catherine Kidner, Maurizio Mascarello, Joshua V Peñalba, Flávia Pezzini, Thomas von Rintelen, Gontran Sonet, Carl Vangestel, Massimiliano Virgilio, Peter M Hollingsworth

**Veröffentlicht in:** Biodiversity Data Journal, Ausgabe 11, 2023, ISSN 1314-2836

**Herausgeber:** Pensoft

**DOI:** 10.3897/bdj.11.e102317

## Other (1) ▼

[Envisaging a global infrastructure to exploit the potential of digitised collections](#) ↗

**Autoren:** Quentin Groom, Mathias Dillen, Wouter Addink, Arturo H. Ariño, Christian Bölling, Pierre Bonnet, Lorenzo Cecchi, Elizabeth R. Ellwood, Rui Figueira, Pierre-Yves Gagnier, Olwen Grace, Anton Güntsch, Helen Hardy, Pieter Huybrechts, Roger Hyam, Alexis Joly, Isabel Larridon, Vamsi Krishna Kommineni, Laurence Livermore, Ricardo Jorge Lopes, Jeremy Miller, Sofie Meeus, Kenzo Milleville, Marc Pignal, Renato Panda, Jorrit H. P

**Veröffentlicht in:** Authorea, 2022

**Herausgeber:** Authorea

**DOI:** 10.22541/au.166678848.82362633/v2

## Non-peer reviewed articles (1) ▼

[Uniquely Identifying Collectors of Specimens](#) ↗

**Autoren:** Quentin Groom, Mathias Dillen, Pieter Huybrechts

**Veröffentlicht in:** Biodiversity Information Science and Standards, Ausgabe 3, 2019, ISSN 2535-0897

## Conference proceedings (5) ▼

[Incrementally building FAIR Digital Objects with Specimen Data Refinery workflows ↗](#)

**Autoren:** Woolland, Oliver; Brack, Paul; Soiland-Reyes, Stian; Scott, Ben; Livermore, Laurence

**Veröffentlicht in:** Research Ideas and Outcomes 8: e94349, Ausgabe 25, 2022, ISSN 2367-7163

**Herausgeber:** Pensoft

**DOI:** 10.5281/zenodo.7224963

[MIDS: The digitisation standard for Natural Science collections ↗](#)

**Autoren:** Elspeth M Haston, Cat Chapman

**Veröffentlicht in:** Biodiversity Information Science and Standards, Ausgabe 6, 2022

**Herausgeber:** Pensoft

**DOI:** 10.3897/biss.6.94604

[Collections do not have to Remain Ambiguous Forever: Seven steps to getting the correct people into your data ↗](#)

**Autoren:** Groom, Quentin; Braeuchler, Christian; Cubey, Robert; Dillen, Mathias; Huybrechts, Pieter; Kearney, Nicole; Leachman, Siobhan; Paul, Deborah L; Rogers, Heather; Santos, Joaquim; Shorthouse, David; Vaughan, Alison; von Mering, Sabine; Haston, Elspeth

**Veröffentlicht in:** Biodiversity Information Science and Standards 6: e91194, Ausgabe 14, 2022

**Herausgeber:** Pensoft

**DOI:** 10.3897/biss.6.91194

[Latimer Core: A new data standard for collection descriptions ↗](#)

**Autoren:** Matt Woodburn, Jutta Buschbom, Gabriele Droege, Sharon Grant, Quentin Groom, Janeen Jones, Maarten Trekels, Sarah Vincent, Kate Webbink

**Veröffentlicht in:** Biodiversity Information Science and Standards, Ausgabe 6, 2022

**Herausgeber:** Pensoft

**DOI:** 10.3897/biss.6.91159

[Combined High-Throughput Imaging and Sequencing: Addressing the collections on demand requirement in SYNTHESYS+ project ↗](#)

**Autoren:** Christos Arvanitidis, Peter Hollingsworth, Patricia Mergen, Patrick Semal, Kleoniki Keklikoglou, Eva Chatzinikolaou, Wouter Addink, Vincent Smith, Dimitrios Koureas

**Veröffentlicht in:** Biodiversity Information Science and Standards, Ausgabe 3, 2019, ISSN 2535-0897

**Herausgeber:** Pensoft

**DOI:** 10.3897/biss.3.37290

## Monographic books (1)

[Biodiversity Biobanking – a Handbook on Protocols and Practices](#) ↗

**Autoren:** Carolina Corrales, Jonas J Astrin

**Veröffentlicht in:** Pensoft, Advanced Books, 2023

**Herausgeber:** Pensoft

**DOI:** 10.3897/ab.e101876

## Datensätze

### Datensätze via OpenAIRE (12)



[Supplementary material 1 from: Walton S, Livermore L, Bánki O, Cubey RWN, Drinkwater R, Englund M, Goble C, Groom Q, Kermorvant C, Rey I, Santos CM, Scott B, Williams AR, Wu Z \(2020\)](#)

[Landscape Analysis for the Specimen Data Refinery. Research Ideas and Outcomes 6: e57602.](#)

<https://doi.org/10.3897/rio.6.e57602> ↗

**Autoren:** Walton, Stephanie; Livermore, Laurence; Bánki, Olaf; Cubey, Robert; Drinkwater, Robyn; Englund, Markus; Goble, Carole; Groom, Quentin; Kermorvant, Christopher; Rey, Isabel; Santos, Celia; Scott, Ben; Williams, Alan; Wu, Zhengzhe

**Veröffentlicht in:** Zenodo

[Supplementary material 1 from: Wanke D, Hausmann A, Lees DC, Lee KM, Martin G, Sihvonen P,](#)

[Staude H, Rajaei H \(2023\) The African endemic species " Nychiodes" tyttha Prout, 1915](#)

[\(Lepidoptera, Geometridae, Ennominae\) belongs to the genus Aphilopota Warren, 1899. Nota](#)

<https://doi.org/10.3897/nl.46.94940> ↗

**Autoren:** Wanke, Dominic; Hausmann, Axel; Lees, David C.; Lee, Kyung Min; Martin, Geoff; Sihvonen, Pasi; Staude, Hermann; Rajaei, Hossein

**Veröffentlicht in:** Zenodo

## Bat Interactions ↗

**Autoren:** Quentin Groom; Jorrit Poelen

**Veröffentlicht in:** Zenodo

Dataset: Lower third molar morphometrics and dietary implications in the archaeological cervid from Playa Don Bernardo archaeological site, Panama ↗

**Autoren:** Martínez-Polanco, María Fernanda

**Veröffentlicht in:** Zenodo

Supplementary material 1 from: Hobern D, Livermore L, Vincent S, Robertson T, Miller JT, Groom Q, Grosjean M (2022) Towards a Roadmap for Advancing the Catalogue of the World's Natural History Collections. Research Ideas and Outcomes 8: e98593. <https://doi.org/10.3897/rio.8.e98593> ↗

**Autoren:** Hobern, Donald; Livermore, Laurence; Vincent, Sarah; Robertson, Tim; Miller, Joseph; Groom, Quentin; Grosjean, Marie

**Veröffentlicht in:** Zenodo

Supplementary material 1 from: Woodburn M, Droege G, Grant S, Groom Q, Jones J, Trekels M, Vincent S, Webbink K (2021) A Data Standard for Dynamic Collection Descriptions. Biodiversity Information Science and Standards 5: e73902. <https://doi.org/10.3897/biss.5.73902> ↗

**Autoren:** Woodburn, Matt; Droege, Gabriele; Grant, Sharon; Groom, Quentin; Jones, Janeen; Trekels, Maarten; Vincent, Sarah; Webbink, Kate

**Veröffentlicht in:** Zenodo

Supplementary material 1 from: Woodburn M, Buschbom J, Droege G, Grant S, Groom Q, Jones J, Trekels M, Vincent S, Webbink K (2022) Latimer Core: A new data standard for collection descriptions. Biodiversity Information Science and Standards 6: e91159.

<https://doi.org/10.3897/biss.6.91159> ↗

**Autoren:** Woodburn, Matt; Buschbom, Jutta; Droege, Gabriele; Grant, Sharon; Groom, Quentin; Jones, Janeen; Trekels, Maarten; Vincent, Sarah; Webbink, Kate

**Veröffentlicht in:** Zenodo

Supplementary material 2 from: Woodburn M, Buschbom J, Droege G, Grant S, Groom Q, Jones J, Trekels M, Vincent S, Webbink K (2022) Latimer Core: A new data standard for collection descriptions. Biodiversity Information Science and Standards 6: e91159.

<https://doi.org/10.3897/biss.6.91159> ↗

**Autoren:** Woodburn, Matt; Buschbom, Jutta; Droege, Gabriele; Grant, Sharon; Groom, Quentin; Jones, Janeen; Trekels, Maarten; Vincent, Sarah; Webbink, Kate

**Veröffentlicht in:** Zenodo

Breaking the constraint on the number of cervical vertebrae in mammals: on homeotic transformations in lorises and pottos ↗

**Autoren:** Galis Frietson; Van Dooren Tom; van der Geer Alexandra  
**Veröffentlicht in:** Zenodo

[Supplementary material 1 from: Soares MVB, Koenen EJM, Iganci JRV, Morim MP \(2022\) A new generic circumscription of Hydrochorea \(Leguminosae, Caesalpinoideae, mimosoid clade\) with an amphi-Atlantic distribution. In: Hughes CE, de Queiroz LP, Lewis GP \(Eds\) Advances in Legume Systematics 14. Classification of Caesalpinoideae Part 1: New generic delimitations. PhytoKeys 205: 401-437. https://doi.org/10.3897/phytokeys.205.82775](#)

**Autoren:** Vinicius Batista Soares, Marcos; Mathieu Koenen, Erik Jozef; Ricardo Vieira Iganci, João; Morim, Marli Pires  
**Veröffentlicht in:** Zenodo

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[Alle 12 Ergebnisse anzeigen](#)

## Software

Software über OpenAIRE (1)



[RO-Crate RDA maDMP Mapper](#)

**Autoren:** Ghaith Arfaoui; Maroua Jaoua

**Herausgeber:** Zenodo

**DOI:** 10.5281/zenodo.3922135; 10.5281/zenodo.3922136

## Weitere Forschungsprodukte

Weitere Forschungsprodukte über OpenAire (72)



[Sactogaster curvicauda Förster, lectotype female, NHMW-HYM#0005303](#)

**Autoren:** Awad, Jessica; Talamas, Elijah

**Veröffentlicht in:** Zenodo

[Apegus leptocerus Förster, holotype, NHMW-HYM#0005332](#)

**Autoren:** Awad, Jessica; Talamas, Elijah

**Veröffentlicht in:** Zenodo

[Apegus longicornis Kieffer, holotype male, NHMW-HYM#0005356](#)

**Autoren:** Awad, Jessica; Talamas, Elijah  
**Veröffentlicht in:** Zenodo

[Acolus piceiventris Kieffer, syntype female, NHMW-HYM#0005383](#) ↗

**Autoren:** Awad, Jessica; Talamas, Elijah  
**Veröffentlicht in:** Zenodo

[Teleas maculatus Förster, holotype male, NHMW-HYM#0006908](#) ↗

**Autoren:** Awad, Jessica  
**Veröffentlicht in:** Zenodo

[Anteris bicolor Kieffer, lectotype female, NHMW-HYM#0005333](#) ↗

**Autoren:** Awad, Jessica; Talamas, Elijah  
**Veröffentlicht in:** Zenodo

[Telenomus nomas Förster, syntype female, NHMW-HYM#0005390](#) ↗

**Autoren:** Awad, Jessica; Talamas, Elijah  
**Veröffentlicht in:** Zenodo

[Leptacis foersteri Kieffer, lectotype female, NHMW-HYM#0006906](#) ↗

**Autoren:** Awad, Jessica  
**Veröffentlicht in:** Zenodo

[Anteris simulans Kieffer, lectotype female, NHMW-HYM#0005335](#) ↗

**Autoren:** Awad, Jessica; Talamas, Elijah  
**Veröffentlicht in:** Zenodo

[Plastogryon sagax Kieffer, 1908, lectotype female, NHMW-HYM#0005350](#) ↗

**Autoren:** Awad, Jessica; Talamas, Elijah  
**Veröffentlicht in:** Zenodo

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[Alle 72 Ergebnisse anzeigen](#)

**Letzte Aktualisierung:** 4 November 2024

**Permalink:** <https://cordis.europa.eu/project/id/823827/results/de>

European Union, 2025

