### Bauhin 2022 symposium, 15 & 16 September 2022, Basel University

400 Years of Botanical Collections – Implications for Present-Day Research



### **Poster contributions**

### Herbarium DNA degradation: different ways of falling to pieces

Freek T. Bakker1 & Lia Hemerik2

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### Simple procedures for obtaining DNA sequences from old herbarium material

<u>Mika Bendiksby</u>, Lisbeth Birgitte Thorbek, Charlotte Sletten Bjorå, Rune Halvorsen Natural History Museum, University of Oslo, Norway

### Comparing historic and contemporary phenology of plants in northwest Switzerland in the light of climate change from 1850 to today

<u>Maya Bosshard</u>, Jurriaan M. de Vos Department of Environmental Sciences - Botany, University of Basel, Switzerland

### Collections from the cold solving hot questions

<u>Charlotte S Bjorå</u>, Mika Bendiksby, Bjørn Petter Løfall, Einar Timdal Natural History Museum, University of Oslo, Norway

#### A 150-year-old herbarium exemplifies the change of a regional flora

Michèle Büttner1, Urs Weibel1, Michael Jutzi2, Ariel Bergamini3, Rolf Holderegger3,4 1 Museum zu Allerheiligen, Schaffhausen, Switzerland 2 Info Flora, Berne, Switzerland 3 WSL Swiss Federal Research Institute, Birmensdorf, Switzerland 4 ETH Zürich, Department of Environmental Systems Science, Zurich, Switzerland

### Emerging methods for non-destructive sampling of wood collections: microCT and fluorescence

<u>Alana RO Chin</u> IBZ Plant Ecology, ETH Zürich, Switzerland

#### Potentials and limits in the genomic uses of a 200 years old herbarium.

<u>Camille Christe1,2</u>, Carlos G. Boluda1,2, Yamama Naciri1,2, Mathieu Perret1,2 and Fred Stauffer1,2 1 Conservatoire et Jardin botaniques de la Ville de Genève, Switzerland 2 Laboratoire de Systématique végétale et Biodiversité, Université de Genève, Switzerland

#### Bioprospecting in Herbaria: The case of Laurent Garcin's Geneva specimens

<u>Alexandra Cook</u> University of Hong Kong and Sinergia Project, Botanical Legacies of the Enlightenment University of Neuchâtel

### Bridging Herbaria Cultural Heritage and Digital Art: Immaterial Herbaria

Rhinaixa V Duque-Thüs1, Philipp Schlüter2, Helmut Dalitz3, María Beatriz Eggli4

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### A museomics approach to study the evolution of disease resistance genes in a crop wild relative of tomato Edeline Gagnon1, Gabriel Renaud2, Remco Stam3

 Chair of Phytopathology, TUM School of Life Sciences, Technical University of Munich, Freising, Germany
Department of Health Technology, Section for Bioinformatics, Technical University of Denmark, Copenhagen, Denmark

3) Institute of Phytopathology, Christian-Albrecht University, Kiel, Germany

# Using herbarium collections to investigate cold and altitudinal adaptations in crustose lichen species Julia Gerasimova<sup>1,2</sup>, Andreas Beck<sup>1,2</sup>

<sup>1</sup> Systematics, Biodiversity and Evolution of Plants, LMU Munich, Munich, Germany

<sup>2</sup> Botanische Staatssammlung München, SNSB-BSM, Munich, Germany

### In the footsteps of Sarasin & Christ: digitizing fern specimens at the herbaria in Basel and Zurich

Aurélie Grall1, Jurriaan de Vos1, Reto Nyffeler2 and Alessia Guggisberg3

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2 Department of Systematic and Evolutionary Botany, University of Zürich, Switzerland

3 Institute of Integrative Biology, ETH Zurich, Switzerland

### Diaspore morphospace disparity among Australasian Atriplex L. during adaptive radiation

Dominique Groffman<sup>1</sup>, Anze Žerdoner Čalasan<sup>2</sup>, Gudrun Kadereit<sup>2</sup>

1) Systematics, Biodiversity and Evolution of Plants, Ludwig Maximilian University, Munich, Germany, Ludwig Maximilian University of Munich; Erasmus Mundus Master Programme in Evolutionary Biology; Uppsala, Sweden

2) Systematics, Biodiversity and Evolution of Plants, Ludwig Maximilian University; Munich, Germany

### Historical tomato genomes shed light on the evolution of fruit morphology and flavour

<u>Thomas Grubinger</u><sup>1</sup>, Gülfirde Akgül<sup>2</sup>, Alessia Guggisberg<sup>3</sup>, Reto Nyffeler<sup>4</sup>, Jurriaan M. de Vos<sup>5</sup>, Verena J. Schuenemann<sup>2</sup>, and Simon Aeschbacher<sup>1</sup>

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### Towards a "reasoned" digitisation of herbaria for research

<u>Alessia Guggisberg1</u>, Guilhem Mansion2 1 Institute of Integrative Biology, ETH Zurich, Switzerland 2 Institute of Biology, University of Neuchâtel, Switzerland

### Using herbaria to reconstruct Japanese knotweed invasion history and eco-evolutionary dynamics

<u>Ramona-Elena Irimia</u><sup>1</sup>, Farah Badreldin<sup>1</sup>, Uta Grünert<sup>1</sup>, Christina Richards<sup>1,2</sup>, Oliver Bossdorf<sup>1</sup> <sup>1</sup>Plant Evolutionary Ecology, Institute of Evolution & Ecology, University of Tübingen, Germany <sup>2</sup>University of South Florida, Department of Integrative Biology, Tampa, Florida, USA

### Using herbarium specimens for studying climate change

Thea Kull, Kätlin Langerbaur, Tiiu Kull

Institute of Agricultural and Environmental Sciences, Estonian University of Life Sciences, Tartu, Estonia Herbarium of Agricultural and Environmental Institute (TAA)

# Can we identify where geneflow between crops and their wild relatives might be more likely to occur based on herbaria and GBIF records?

Beatrice Landoni<sup>1</sup>, Rocio Perez-Barrales<sup>2</sup>

<sup>1</sup>School of Biological Sciences, University of Portsmouth, UK

<sup>2</sup>Department of Botany, Universidad de Granada, Spain

### Detecting demographic history from herbarium material: the case of Papua New Guinea Begonia

Thibauld Michel1,2; Hannah Wilson1,3; Mark Hughes1; Daniel C. Thomas4, and Catherine Kidner1,2 1 Royal Botanic Garden of Edinburgh

2 University of Edinburgh

3 University of Glasgow

4 National Parks Board, Singapore Botanic Gardens

# Following Podlech's legacy: Unleashing the potential of the Munich Herbarium collection for phylogenetic analyses of the largest genus of flowering plants

<u>Diego F. Morales-Briones</u>, Gudrun Kadereit Princess Therese von Bayern chair of Systematics, Biodiversity and Evolution of Plants, Ludwig-Maximilians-Universität München, Munich, Germany

# Challenges with georeferencing herbarium specimens: a case study derived from the Flora of the Canton Zürich project

<u>Reto Nyffeler</u> Department of Systematic and Evolutionary Botany, University of Zürich

# Aspects of the organisation of an early 18th century garden revealed by newly studied and discovered specimens from Herman Boerhaave (1668-1738).

<u>Aleida Offerhaus</u>, Anastasia Stefanaki, Tinde van Andel Naturalis Biodiversity Center, Leiden University, The Netherlands

### Looking back to move forward: impact of historical moss specimens on modern systematics Michelle J. Price

Conservatory and Botanical Garden of Geneva

### Ampelographic collection in 230-year-old Herbarium Wolnyanum

<u>Milica Rat</u> University of Novi Sad, Faculty of Sciences, Department of Biology and Ecology, Novi Sad, Serbia

### A Time Capsule of Renaissance Botanical Illustration: "Plant Images Related to Caspar Bauhin and his Herbarium"

Karen Reeds Princeton Research Forum and National Coalition of Independent Scholars

### Shifting plant distribution driven by climate change?

Jessica Wang1, Markus Fischer1, Stefan Eggenberg2, <u>Katja Rembold1</u> 1 Botanical Garden of the University of Bern, Switzerland 2 Info Flora, c/o Botanical Garden of the University of Bern

# Within-species variantion poorly reflects species diversification along elevational gradients in Saxifraga: a herbarium study with special reference to inflorescence structure.

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2 Dept Biology 1 - Systematics, Biodiversity and Evolution of Plants, Ludwig Maximilians University Munich, Germany

### **Resurrecting a heterotypic synonym and validly describing a** *nomen nudum* based on herbarium specimens <u>R. R. Rubite</u><sup>1\*</sup>, D. B. H. Ubaldo<sup>1</sup>, J. C. Salcedo<sup>1</sup>, K.-F. Chung<sup>2</sup>, L. T. Evangelista<sup>3</sup>, D. N. Tandang<sup>3,4</sup> & M. Hughes<sup>5</sup> <sup>1</sup>University of the Philippines Manila, Department of Biology, College of Arts and Sciences, Manila, Philippines, <sup>2</sup>Research Museum and Herbarium (HAST), Biodiversity Research Center, Academia Sinica, Taipei, Taiwan <sup>3</sup>Philippine National Herbarium (PNH) Botany Division, National Museum, Manila, Philippines <sup>4</sup>Biodiversity Program, Taiwan Intern Graduate Progr, Academia Sinica & National Taiwan Normal Univ; Dept of Life Science, National Taiwan Normal University; Biodiversity Research Center, Academia Sinica, Taipei, Taiwan

<sup>5</sup>Royal Botanic Garden Edinburgh, Edinburgh, United Kingdom

### Plant Exchange Networks in the 19th Century

### Christof Nikolaus Schröder

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# Herbarium phylogenomics, taxonomy and evolution of complex reproductive systems in Connaraceae Serafin J. R. Streiff, Jurriaan M. de Vos

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### Correspondence of D.F.L. von Schlechtendal in the herbarium of Halle, Germany (HAL)

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### Flora of the Canary Islands – Revised Checklist to a Classic Arena of Botany

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