

e monocot

Biodiversity Informatics for monocot plants

identify | classify | explore

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<http://e-monocot.org>

e monocot project

- The development of a sustainable integrated web treatment of monocot plants.
- Started in November 2010.
- Structured around a consensus taxonomy derived from the World Checklist of Monocotyledons (WCM) (www.kew.org/wcsp/monocots).
- Building on the success of:
 - CATE (Creating a Taxonomic eScience)
 - EDIT (European Distributed Institute of Taxonomy).
- Existing web taxonomies are constituent elements:
 - CATE-Araceae (www.cate-araceae.org)
 - Palmweb (www.palmweb.org)
 - Grass Base (www.kew.org/data/grasses-db.html).
- The Scratchpads project based at the NHM (<http://scratchpads.eu>) will play a vital role in both community involvement and taxonomic data delivery.

Deliverables

- Biodiversity data such as nomenclature, taxonomic descriptions, images, identification guides, geographical, ecological, DNA sequence and conservation data will be provided via:
- Monocot family key & pages.
 - Keys and pages for 2100 genera in eight core monocot families:
 - Araceae [CATE-Araceae] (aroids)
 - Arecaceae [Palmweb] (palms)
 - Asparagaceae
 - Cyperaceae (sedges)
 - Dioscoreaceae (yams and allies)
 - Liliaceae
 - Orchidaceae
 - Poaceae [GrassBase] (grasses).
 - Three targeted species level resources:
 - European Monocots (c.2000 species)
 - Sampled Red List Index Project (1500 species)
 - Cyripedioideae (c.130 species).
 - 70,000 outline species pages from the WCM.

Iris sp., Iran. Photo: M. Zarrei



Monocot introduction

- 20% (70,000 species) of all flowering plants.
- Numerous groups of the highest conservation, ecological and economic importance: orchids, grasses, sedges and palms.
- Provide 75% of human nutrition.

Consortium members & roles

- RBG Kew: Content.
- Oxford: Software development.
- NHM: Scratchpad project including extension to Zoology.



Howea forsteriana, Lord Howe Island. Photo: W. Baker, RBG Kew

Lysichiton americanum, UK. Photo: I. Kitching, NHM



Community & outreach

- Enable the participation of monocot taxonomists worldwide.
- Build content on the eight core e monocot families through collaboration.
- Support development of Scratchpads on further monocot taxa.
- Five UK & international workshops planned.
- Develop appropriate web-based taxonomic metrics.
- Engage with biodiversity scientists.
- Seek participation of volunteer scientists and the broadest possible public audience.
- Global participation critical in developing and sustaining both the data and the communities that will generate and enhance it.

Moving forward

- Content
 - Begin content capture & key generation
 - Continue to develop Palmweb, CATE-Araceae & GrassBase.
- Software
 - Gather requirements & review existing systems.
 - Moving on to initial solution design.

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